



# adaptation futures 2023

## scientific program

Monday, October 2, 2023

13:00-17:00	Registrations 13:00-16:00	Masterclass 1 What Remains After Project Closure? Conducting Ex Post Evaluations for Adaptation Interventions Led by Susan Legro, AF-TERG 14:00-16:00	Masterclass 2 Operationalising Co-creation for Transformation: A Masterclass by the Adaptation Research Alliance and Climate and Development Knowledge Network 13:00-17:00	Masterclass 3 How to Write Peer-Review Publications: Tips and Tricks from the Editors of Climate and Development Organised by Editors of Climate and Development 13:00-16:30

Principal Partners



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Scientific Partners



11:00-12:30	#53 Building participatory action research and alliances for climate justice with Indigenous Peoples in Latin America - IDRC	#666 Inclusive Adaptation in African Ecosystems: Empowering Communities for Effective Climate Resilience - FAO, UNEP, Climate Protection Zambia	#272 Towards new models of knowledge exchange for sustainability transformations: A multi-sited dialogue - Organizers of AF2023, Transformations 2023, Gobeshona 2023 conferences	#840 Re-tooling and re-schooling: Advancing workforce competencies and literacies to meet society's climate risk, adaptation, resiliency, and leadership imperatives - Royal Roads Univ.	#278 Subnational government innovation to integrate vulnerable community knowledge into adaptation planning and action - Region4, Gouvernement du Québec	#579 Global knowledge exchange event: Climate adaptation getting from assessment to implementation - Global Centre on Adaptation	#259 Key findings from UCCRN's third assessment report on climate change and cities - Urban Climate Change Research Network's		#661 Financing NDCs in African countries: Fellowship program developed nine in-country case studies to convene dialogue on challenges and opportunities for collective climate finance leadership - ARIN, Frankfurt School	#684 Advancing First Nations climate leadership: Case stories from the National, Territorial, and Provincial level - Assembly of First Nations	#337 Restoring degraded spaces for a resilient future: Approaches, opportunities and challenges - Desjardins, David Suzuki Foundation	#524 What do we know about effectiveness of adaptation in reducing climate risks? A review of methodologies and evidence on adaptations in the agri-food systems - CGIAR, Climate Analytics	#410 Calling those interested in closing the science-policy-practice gap in LDCs! How would you influence the priorities of a new action-oriented adaptation research programme? - Interfer, Adaptation Research Alliance	#736 Incentivizing equitable adaptation: Interdisciplinary perspectives - IIED	#875 Reimagining the adaptation continuum to include loss and damage - CJRF, IIED, ICCAD	#467 Knowledge Co-production for the Global Goal on Adaptation - WASP, UNU-EHS	#655 Who is enabling effective and socially just climate adaptation? Frontline organizations as critical intermediaries in adaptation - African Climate Development Initiative, Arizona State Univ.	ACORA side events (details coming)
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	#138 Multilevel adaptation governance in dealing with multiple risks and enabling climate action at subnational levels - Univ. of Regina, IISD	#989 Food security in Africa: lessons learnt, opportunities, and priorities for adaptation - African Academy of Sciences	#277 “South”, the new frontiers of adaptation in the “North”? An ideas’ market place - AFD, 14CE, ICCCAD	#75 Integrating mitigation and adaptation into the feasibility assessment approach for improved support to climate-resilient development - Univ. nationale d'Agriculture, ECLAC, Univ. of Toronto	#113 Ocean and climate crisis in the Pacific: An indigenous perspective - Univ. of Canterbury		Innovation Days  Innovation in adaptation: What is it? What does it look like?		#710 (in French) The necessary transformative adaptation: a combination of research and actions - Ouranos		#331 Financing Adaptation and Building Resilience: Developing a Gender Lens Climate Investment Framework - IDRC		#748 Engaging Indigenous and local people in the co-development of knowledge and resources to enhance climate action and mutual learning - KE4CAP project		#715 Resilience through environmentally sustainable agriculture production - MEDA		#392 What is effective adaptation, for whom, and how do we know? Findings from adaptation policies, NAPs and M&E on vulnerability assessments, measurments and effectiveness - Hunter College, City Univ. New York	#784 Achieving equity in climate change adaptation research and partnerships: Discussion panel and Launch of the edited book “Climate Justice in the Majority World” - Chalmers Univ., SUNY College and Univ. of Leeds	#812 The values of adaptation pathways for planning under adaptation limits - UNU-EHS	#205 Compound, cascading and complex climate risks and their impacts: getting from methodological advancements to practical outcomes - International Institute for Applied Systems Analysis	#693 Turning knowledge into Action: Workshop on linking adaptation assessment and adaptation implementation through Indigenous projects - ISC, CIRNAC		AGORA side events (details coming)
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16:30-18:00	#221 Centering Indigenous perspectives in climate resilience planning - FSC Indigenous Foundation	#421 Youth climate adaptation leadership: Insights from capacity building programs and lessons from the field - IDRC, SouthSouth-North	#613 Scaling up climate risk informed decision making for a climate resilient development - Deltares, Ouranos	#764 Squaring the debate: Does Locally Led Adaptation (LLA) help or hinder transformational adaptation? - CARE Australia, IIED	#807 Scaling up ecosystem-based adaptation: Leveraging behavioral science for effective climate policy and action - IISD, FAO, Rare	#83 Maximizing synergies across climate change adaptation, women's empowerment, and nutrition objectives through goat value chains - International Food Policy Research Institute	#831 (in French) Promoting societal resilience by strengthening the links between engineering consulting and infrastructure owners/managers - Stantec	#834 Understanding the loss and damage finance facility: Opportunities and challenges ahead of COP28 - Northeastern Univ.	#963 Integrating adaptation into city budgeting - Lessons from C40 cities and Montreal - C40	#990 Responsible Artificial Intelligence for Resilience in a Changing World - Ouranos					#986 Facilitating an adaptation mindset using lessons from the transportation and buildings sectors - Canadian Centre for Climate Services Environment and Climate Change Canada	#628 Just transitions to water resilience in African cities - Univ. of Cape Town	#38 Connecting the dots across regional resilience priorities: What have we learnt and done in 2023 so far and how are we gearing up to COP28? - Resilience Hub	#455 Measuring the resilience of communities to climate impacts and using this knowledge to adapt - IIASA	#702 Co-producing adaptation strategies for agriculture supported by interdisciplinary system modeling and empirical studies - AgMiP	#946 Tracking health adaptations - design, measurement and improvement of health adaptation programs - Lancet Countdown
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Indigenous Knowledge	Multiple Risks	Adaptation Choices	Limits to Adaptation	Equity & Justice	Nature-based solutions	Teaching & Learning	Governance & Finance
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Rooms	520A LAC Pavilion Hybrid	520B Africa Pavilion Hybrid	520C Hybrid	520D Hybrid	520E Hybrid	520F Hybrid	519A	518A	519B	518B	518C	523	522	525	524A Collaborative	524B Collaborative	524C Collaborative	Agora Hybrid
8:30-10:00	#292 In Situ conservation of agro-biodiversity to ensure adaptive capacity - Building on Indigenous and local knowledge from Andean mountain ecosystems - Andes Resilientes Helvetas, Fundacion Avina, SDC	#634 Mobilising climate-smart finance for food security in sub-Saharan Africa - SNV Development Organisation	#304 Addressing the challenges of climate change, food insecurity, sustainable health and wellbeing - Time to innovate for progress on the Global Goal of Adaptation - Western Univ., Future Earth Mtl, CAPCC	#211 Do we need a global goal on adaptation? - Basque Centre for Climate Change, Univ.of Bonn	International Forum on Agro-ecosystem Living Labs  Opening Plenary - Theme 1: Promoting innovation through living labs - Thematic discussion	International Forum on Agro-ecosystem Living Labs  Theme 2: Fostering transitions toward sustainable food systems through living labs - Thematic discussion	#107 Adaptation in practice: how local governments are mainstreaming climate resilience - Federation of Canadian Municipalities	#976 Migration and climate change: understanding decisions and evaluating outcomes - Univ. of Exeter	#617 How to incentivise financing for a resilient recovery - Mercy Corps	#329 Adaptation for a climate resilient North: Amplifying local voices in pursuit of northern-based solutions - Government of: Nunavut, the Northwest Territories, Yukon	#16 Making nature count for adaptation - Global, national and local action to value services provided by nature - INTACT Centre, Ouranos	#309 Flood mitigation and adaptation - Univ. of Prince Edward Island		#319 Driving equitable systems change in a world of urgent transitions: Effective knowledge brokering practices in the global South - IDRC, CDKN/ SouthSouthNorth	#723 Fostering equity and justice in adaptation and adaptation Interventions: Perspectives and questions from early-career African women scientists - START	#848 Improving assessment practices to incorporate equitable climate resilience amid increasing complex events - World Bank and National Institute of Standards and Technology	#642 Global goal, local action: can measurement make adaptation more effective? - Univ.College London, African Research and Impact Network, Practical Action Nepal	#985 Audit and Accountability for Adaptation - Office of the Auditor General of Canada
10:30-12:00	#332 Accelerating and scaling nature as a solution for equitable climate adaptation - The Nature Conservancy	#554 How gender-responsive climate adaptation solutions can accelerate resilient food systems in Africa - AWARD, CDKN	#147 Optimizing adaptation for Island Peoples: The role of traditional and local knowledges - Univ. of Malta	#535 Establishing a globally-relevant just adaptation network - Future Earth Australia			#984 Adapting our infrastructures to climate change while transitioning to a circular economy model - AdapT Institute	#741 Indigenous anti-displacement manifestoes: Community strategies of resilience and resistance - Preparing Our Home	#799 Aligning perspectives to unlock the potential of climate adaptation finance and close critical funding gaps - Future Earth Canada, Sustainability in the Digital Age, Climate Policy Initiative		#746 EbA in practice: Lessons from implementers on planning and measuring EbA - UNEP-WCMC	#978 Basins' Resilience, Water Adaptation and Management: Challenges and Opportunities - International Secretariat for Water	#766 Effective support for transformative adaptation: What is it and how do we know we're making progress? - Tetra Tech		#389 The Climate Atlas of Canada: Weaving Indigenous and Western Knowledges to Advance Applied Adaptation - Prairie Climate Centre, Pacific Institute for Climate Impacts	#349 Pushing the envelope on climate change risk assessments: Aspirations, lessons learned, and new horizons - Canadian government	#974 Building understanding and capacity of climate change adaptation through education and learning - Victoria Univ. of Wellington	#561 Locally-led nature-based solutions for adaptation in practice: Building bridges between global concepts and local contexts - CARE, UNEP
13:00-14:00	Adapting Our Communities : A Collective Responsibility - Conference organized by Union des Municipalités du Québec																	
14:00-15:30	#525 Integrating adaptation into business strategies: Tools, lessons learned, and public-private articulation opportunities from a LAC perspective - CLACDS	#630 From locally led metrics to international adaptation frameworks: capturing the diversity of adaptation needs and outcomes in communities across Africa and Asia - CDKN, IDRC	#835 Advancing women's leadership in climate action: Lessons from within and beyond adaptation - IDRC	#58 Urban climate resilient development: Reflections and insights from policy practice and research: opportunities, challenges and pathways for systemic change - Univ. of Canterbury	#509 Improving farmer resiliency and livelihoods: Science- and data-driven approaches to Inform climate adaptation in smallholder agriculture - Rainforest Alliance	starts at 13:30  Innovation Days  The Innovation Process: How is it done? Locally led innovation: What does it look like?	#572 NBS to address coastal flooding: New tools and case studies from North America's emerging community of practice - Commission for Environmental Cooperation	#979 Building resilience in fisheries management: Insights from around the globe - Ouranos	#975 Lessons from the GCF: transformational finance for climate justice - Northeastern Univ.	#966 Adaptation Across the Metis Motherland - Métis National Council	#291 Nature-based Solutions for just Urban Adaptation – Case Studies from the Global South - GIZ, C40	#972 Addressing water insecurity: A multi-dimensional perspective on causes, consequences and solutions - Ouranos	#980 Adaptation at the Nexus of Climate Change and Conflict - Univ. of Greenwich	#565 Adapting to a changing climate: strategies for building climate-resilient health systems in Canada, US, and the UK - US CDC, Health Canada	#459 Advancing knowledge brokering for climate action: A collective reflection and learning journey - IDRC, CDKN	#316 (in French) Best practices for resilient flood management in urban areas: towards an inclusive and effective governance model - Ville de Montréal Architecture sans frontières Québec	#79 Driving transformational change through action-oriented research - IDRC, FCDO	ACORA side events (details coming)
16:00-17:30	#568 Hydro-social landscape approaches in Ecuador to link improved water management, health and other co-benefits in the face of climate change - CARE Ecuador, CARE USA	#230 Towards Integrated climate change adaptation and scaling strategies - Africa Rice, Alliance Bioversity CIAT, ICRISAT, ILRI, IITA, Ministries of Agriculture of 6 countries, World Fish Centre	#238 Mutual learning across Indigenous, Local and Scientific Knowledges to better adapt to interconnected risks: towards building a global Community of Practice - UNU-EHS	#602 Breaking the mould – Southern led micro-grants as a catalyst for scaling up Local Adaptation - Adaptation Research Alliance	#808 Climate action: Challenges, opportunities and good practices of formal and non-formal education - FAO	#496 Compound risks and vulnerability - What are implications for habitability and migration? Insights from research and practice - UNU-EHS, Risk-KAN, Managed Retreat Conf. initiatives	#670 Strengthening the resilience of food systems to climate changes through agroecology - IDRC	#977 Challenges in coastal zones - ClimAtlantics	#466 Research questions for enhancing actions to address loss and damage associated with adverse impacts of climate change - UNEP	#233 Developing the capacity of professionals to address climate change adaptation: the leverage effect of international cooperation - Global Alliance for buildings and construction, ADEME	#335 Climate action and innovation on nature Based solutions and equity in Canadian municipalities - FCM	#663 Advancing collaborative climate adaptation: Lessons learned from a Municipal and First Nations adaptation project - ICLEI Canada	#759 Building the evidence base for inclusive adaptation in Africa - Global Center on Adaptation	#172 Incorporating health and well-being into climate adaptation actions - Univ. of Exeter	#454 Effective adaptation: What is it and how can we measure and manage it? - Victoria Univ. of Wellington	#295 From knowledge to action: Overcoming challenges, embracing opportunities and building community resilience through inclusive adaptation strategies - ECCC, BC, AFN, Ville de Montréal	#393 Good practice community and citizen engagement for accelerating a climate resilient future in Europe and beyond - SEI	
																		#716 Sharing experiences of knowledge and practices of small-holders farmers to face climate risks in the Pacific and in Africa - IRD

Indigenous Knowledge							Multiple Risks							Adaptation Choices							Limits to Adaptation							Equity & Justice							Nature-based solutions							Teaching & Learning							Governance & Finance						
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8:30-10:00	#611 Indigenous perspective of climate adaptation in food systems - IDRC, Indigenous organisations		#101 A reality check on pastoralist livelihoods in East Africa - Exploring opportunities to support adaptation in the Horn of Africa - Cowater International		#804 Maximizing knowledge transfer: new paradigms and online platforms for climate resilience education - UCCRN		#607 Equitable and inclusive community relocation practice: Preparing together for a measure of last resort - UNU-EHS, Munich Re Foundation, IOM		#406 Learning to work together: Principles and practices for collaborations with Indigenous and rural peoples to advance adaptation - UNESCO		#649 Shaping the future of adaptation monitoring, evaluation, and learning: New insights, tools, and opportunities for overcoming challenges and constraints - UNFCCC, NAP Global Network, OECD						#860 Assessing climate risks: What is missing and what can be done to enhance knowledge and institutional capacities in the global south - Impulsouth		#284 Culture and heritage-based education, training and capacity building for climate change adaptation - Carleton Univ., Norwegian Institute of Cultural Heritage Research		#981 Measuring performance of NBS - ECCC		#641 Building the business case for adaptation: The impacts of recent extreme weather events on Canada's agriculture and food sector and Learning from our experiences - AAFC, UPA		#691 The future of maladaptation research and implementation - Univ. of Bonn, Univ. of Twente, Practical Action		#730 Advancing equity, justice, and Indigenous rights in adaptation through Canada's National Adaptation Strategy - What is required for success? - IISD, McGill, Univ. of Regina		#685 Critical self-reflection, positionality and transformation: A focus on adaptation action - Kulima Integrated Development Solutions, Univ. of the Witwatersrand		#933 Advancing digital climate adaptation platforms to develop a climate-ready workforce - Climate Risk Institute, Resilience by Design Lab, Royal Roads Univ.		#928 Deliberating climate adaptation approaches to overcome challenges and build socio-ecological resilience: a practitioners' workshop - WWF		#380 Emerging adaptation practitioners and scholars: A dialogue on common and divergent challenges across African sociopolitical and environmental contexts - Ohio Univ.																				
10:30-12:00	Plenary Hybrid																																																						
14:00-15:30	#674 Shared wisdoms: a joint dialogue on the contributions of Chiquitano women in Bolivia and Cree communities in Canada to the global goals on climate change (CC) and the conservation of biodiversity - CECI		#968 The role of local and indigenous knowledge systems in climate change adaptation: Case studies - African Academy of Sciences		#704 Catalysing adaptation through early career research: Needs, experiences, futures - START, McGill		starts at 13:30  Innovation Days  Innovation in adaptation: What is the future?		International Forum on Agro-ecosystem Living Labs  Theme 3: Empowering participation, strenghtening participatory governance in living labs - Thematic discussion - Closing Plenary		International Forum on Agro-ecosystem Living Labs  Theme 4: Evaluating success in living labs - Thematic discussion		#829 Innovating targets to reduce wildfire, flood & extreme heat risk in Canada - Climate Proof		#560 Climate justice perspectives on planned relocation - Univ. of Exeter, Maynooth Univ.		#152 Valuation of climate impacts and extreme climate events in Canada: benefits, risks and how it incentivise and finance adaptation action - Canadian Climate Institute		#912 Indigenous adaptation leadership, action and research: Cultivating multi-level relationships and recognizing multidimensional sovereignty - Southwest Climate Adaptation Science Center, USGS		#971 Shaping the future of Nature-based Solutions for Adaptation - Parks Canada		#713 Adaptive creation and disruptive reorientation: Food systems innovation for adaptation - ClimEat		#498 Strengthening supply chain resilience and risk ownership in the face of transboundary climate impacts on trade - GIZ, SEI, Adaptation Without Borders, Global Shea Alliance, ICARUS, Maynooth Univ.		#830 Transformative adaptation: Navigating between rhetoric and reality - Temple Univ.		#506 Unlocking Adaptation Analytics and Tools: Stocktake and What's ahead - UNU-EHS		#39 Incorporating Indigenous knowledge in assessments of climate change impacts and adaptation - Natural Ressources Canada		#115 Scaling Up the Implementation of Community-Based Adaptation: Enablers and the way forward - CARE Germany, FANRPAN, IISD, IUCN		ACORA side events (details coming)																				
16:00-17:30	#752 Climate risk and vulnerabilities assessments for adaptation planning: Practical approaches and lessons learned from Latin America and the Caribbean - UNEP		#969 Sectoral and placed-based adaptation challenges and solutions in South Africa, Ghana, Kenya, Senegal and Benin. - African Academy of Sciences		#778 Personal-political climate change vulnerability: A knowledge exchange about lived experiences of vulnerability - Norwegian Univ.of Life Sciences, Carleton Univ., UC Berkeley Univ.		#285 All eyes on 'My Climate Risk': Q-storming towards collective pathways to adaptation action, from local to global - Univ. of Reading						#124 Adapting to Transboundary Climate Risks: Regional Perspectives and Actions - SPARC-Cascade		#948 Migration and habitability issues in the IPCC AR6: The text and the subtext - IPCC		#362 Inclusive Approaches for Effective Mobilization of Adaptation Finance - Ceylon Chamber of Commerce, IDOS, Ludwig Maximilians Univ.Munich, DEval		#987 The Reconnection Vision – the Yukon First Nations youth-led approach to climate action - Yukon Univ.		#314 Learning from innovative partnerships and taking action with Nature: A reflection on Community Led Climate Adaptation and Resilience - The Nature Conservancy		#673 Climate change and the energy sector: Roadmaps toward adaptation - Hydro-Quebec		#464 Effective adaptation: What is it and how can we measure and manage it? - WASP		#699 Climate risk mapping to advance equitable climate action - WSP Canada, ICLEI Canada		#647 Normative visioning, authorship and imagination: experimenting with alternative futures for transformative adaptation - Leeds Beckett Univ., Univ. College London, Univ. of York, Univ. of Bristol		#880 Global Action on Sea Level Rise Adaptation: Knowledge Café on Co-Producing Actionable Information and Advancing Collaboration and Practice - Natural Ressources Canada		#648 Informality and urban adaptation - Univ. of Cape Town, Stockholm Univ., Arizona State Univ., Univ. of Exeter		#689 What science doesn't say: Implementing vulnerability assessments as part of the NAP process - IISD																				



Rooms	520A LAC Pavilion Hybrid	520B Africa Pavilion Hybrid	520C Hybrid	520D Hybrid	520E Hybrid	520F Hybrid	519A	518A	519B	518B	518C	523	522	525	524A Collaborative	524B Collaborative	524C Collaborative	Agora Hybrid
8:30-10:00	#967 Lessons learned from local adaptation practices in agriculture, forestry, and livestock as a response to climate change in Colombia, Cuba, Chile, Ecuador, and Peru - LedsLAC, Fundacion Avina	#659 Sharing good practice on methodology for empowerment, training and capacity building in climate action - UCLG Africa, ALGA, ADEME	#416 New approaches to indigenous climate change adaptation: decoloniality, intersectionality, indigenous climate justice, and the pluriverse - Univ. of Auckland, Univ. of Adelaide	#639 Crises and compromise: What will it take for countries to reach the Global Goal on Adaptation? - FAO	#660 Indoor Heat: Risks and Solutions for a Warmer World - Health Canada, The Global Heat Health Information Network, the Red Cross Red Crescent Climate Centre, WHO	#973 Empowering the most vulnerable, women, youth, elderly, indigenous populations and incorporating local and traditional knowledge - Adaptation Fund	#982 Decision-support tools for climate resilient infrastructure and communities - Infrastructure Canada	#369 Resilience beyond adaptive capacity: How can Strengthening Loss and Damage response contribute to adaptation? - IFSD, ICCCAD, IDRC	#493 The 2023 adaptation finance gap update and emerging lessons and best practice on how to bridge the gap - UNEP, Kulima Integrated Development Solutions	#694 Applying Indigenous Knowledge to climate change adaptation action across sectors – Panel Discussion on Best Practices and Lessons Learned - Indigenous partners, Government of Canada		#178 Putting rural women at the centre of climate information, advisory services, and adaptation planning - Abt Associates	#375 Critical discussions on adaptation directions: Insights from IPCC Working Group II - Griffith Univ. Univ. of Bonn, Univ. Nationale d'Agriculture	#330 The social impact of standards and technical guidance in climate change adaptation: Making the link between research and the people it seeks to serve and benefit - SCC	#553 How to embed justice in climate change practices. Dialogue on global urgencies and local practices - Maynooth Univ. Irish Climate Change Advisory Council Sct and Wageningen Univ. and Research	#747 Donor coordination fishbowl on adaptation metrics - USAID	#345 Advances and needs for actionable adaptation under deep uncertainty - Deltares	#814 Advancing co-production and use of climate risk information for nature-based solutions - Columbia Univ.

10:30 12:15	Closing plenary Hybrid
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13:00	Field trips (Keep an eye on our website for regular updates)
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#AdaptFutures23

DETAILED PROGRAM  
BEGINS ON NEXT PAGE





session 53

Room 520A  
LAC Pavilion  
Hybrid

Equity & Justice

Building participatory action research and alliances for climate justice with Indigenous Peoples in Latin America

The impacts of climate change are, and will be, disproportionately experienced by groups in situations of vulnerability. Responses to climate change offer potential to create or exacerbate inequalities and injustices but also hold the potential to transform society and build more resilient, just and equitable futures. Doing so, however, will require tackling structural injustices in society, such as the exclusion of marginalized groups from decision-making, and seizing climate action as an opportunity to reinforce democratic governance.

In Latin America, Indigenous Peoples are hailed as critical actors in protecting and sustaining natural resources that are vital to furthering a range of policy goals related to climate mitigation and adaption. However, recent years have seen a steady increase in threats to the rights, security and territories of Indigenous Peoples, who rank as the most targeted group of human rights defenders regionally and globally. Simultaneously, bright spots in the region include Indigenous Peoples’ leadership, the convening power of universities and the protections contained in the Escazu environmental rights treaty (signed by 24 countries in the region).

In response to those challenges and opportunities, a group of researchers, rights advocates and Indigenous Peoples’ groups are documenting efforts to support Indigenous Peoples to achieve climate justice.

Authors and Partner organizations

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- Antonia Berrios Bloomfield, Coordinadora General de ONG FIMA,
- Luis Alberto Jiménez Cáceres, Comunidad Aymara de Guallatire,
- Yanet Velasco Castillo, CARE - Central Ashaninka del Río Ene, Comunidad Nativa Alto Maranquiari,
- Adrian Di Giovanni, International Development Research Centre, Canada,
- Marisol García, President, Federación kichwa (Fepikecha), San Martín, Peru,
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- Andrea Prieto, Researcher, Asociación Ambiente y sociedad (AAyS), Colombia,
- Carlos Quispe, Environmental Rights and Justice program, Derecho Ambiente y Recursos Naturales (DAR), Peru,

session 666

Room 520B  
Africa Pavilion  
Hybrid

Equity & Justice

Inclusive adaptation in african ecosystems: Empowering communities for effective climate resilience

This session aims to showcase community driven climate adaptation solutions across various ecosystems in Africa, including agro-pastoral, farmland, and fisheries ecosystems, affected by climate change. It emphasizes the importance of inclusive, community-based adaptation, and locally led actions with a human rights-based approach. The session will highlight approaches for enhancing gender inclusivity, community ownership and participation in adaptation initiatives.

Actions and models showcased during the session are drawn from UNEPs and Climate Protection Zambia (CPZ) efforts to mainstream Human right-based approaches (HRBAs) for Ecosystem-based Adaptation (EbA), FAOs work in Africa focusing on participatory, community-based approaches to locally defined climate adaptation solutions.

The session will examine strategies and implementation modalities for ensuring the active involvement and meaningful participation of these groups in adaptation decision-making processes. Common factors for success and methods, approaches that enhance effectiveness or sustainability of locally led adaptation will be highlighted.

By bringing together farmers, practitioners, community representatives, researchers and stakeholders, the session aims to stimulate collective learning and foster actionable insights for promoting community engagement, inclusivity, and ownership in climate adaptation initiatives across diverse ecosystems in Africa, and through a human rights-based lens. Through knowledge sharing and interactive discussions, the session seeks to catalyze meaningful change and contribute to building resilient and sustainable communities in the face of climate change challenges in African countries. Participants will have the opportunity to share their insights and experiences and engage in collaborative dialogue to enhance the understanding and implementation of effective adaptation solutions in agroecosystems.

Authors and Partner organizations

- FAO
- UNEP
- Climate Protection Zambia
- Session Chair:** Deborah Duveskog, FAO





session 272

Room 520C  
Hybrid

Teaching & Learning

Towards new models of knowledge exchange for sustainability transformation: A multi-sited dialogue

The community of researchers, practitioners and policymakers working on global climate and sustainability challenges are faced with two competing challenges: First, there is an ever-expanding body of knowledge, networks, and initiatives generating new insights that should be shared. Second, we see a growing recognition that fly-in-fly-out conferencing practices (long the main forum for this sharing) are an insufficient and unsustainable model for learning, boundary crossing and collaboration toward sustainability transformations. The interruption of international travel as a result of the COVID-19 pandemic spurred considerable learning and innovation in virtual, hybrid, and other alternative modes of convening and exchange, but also reminded us of the importance of in-person connections (Harvey et al. 2021). Against this backdrop, this session will bring together conference and network conveners and conference participants, to collectively discuss how we can re-think, re-design and sustain equitable and impactful knowledge exchange on sustainability transformations, building on lessons learned from recent years.

This session, co-convened by organizers of the Adaptation Futures 2023, Transformations 2023 and Gobeshona 2023 conferences, will be the third in a series of three dialogues unfolding at these three venues, with a view to capturing a wide range of experiences, lessons learned, and recommendations. The session's primary objectives at AF2023 are to:

- Co-construct a series of recommendations and principles of practice for the future of knowledge exchange and conferencing in the field of climate and sustainability, and
- Collectively map out a “pathway to impact” that articulates how the insights being co-produced can be brought into practice on a wide scale.

Authors and Partner organizations

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Bronwyn Hayward, University of Canterbury, New Zealand  
Ying-Syuan (Elaine) Huang, McGill University, Canada  
Saleemul Huq, ICCCAD, Bangladesh  
Bruce Goldstein, University of Colorado, USA  
Nick Graham, Transformations Community, Netherlands

session 840

Room 520D  
Hybrid

Teaching & Learning

Re-tooling and re-schooling: Advancing workforce competencies and literacies to meet society’s climate risk, adaptation, resiliency, and leadership imperatives

The complex nature of climate change requires professionals across all sectors to address the complexity of the challenge in decision making and develop new competencies for planning and implementing climate adaptation initiatives (Atiq, 2022). Job postings for professionals appear daily (e.g., via Indeed and LinkedIn) for positions requiring climate adaptation competencies. Regulators and professional associations increasingly require the professionals they govern to possess competencies to identify, manage, and help redress climate-related risks. Whereas there is recognition of the skills gap for the net zero, green-economy transition (World Economic Forum, 2020), the same awareness and mobilization has yet to happen to address the skills gap for climate adaptation.

Education and training have a critical role to play in this agenda, however most education and training programs are grounded in the same dominant cultural norms, economies, and cultures that have created the climate crisis (Fazey et al, 2020). Disciplines are siloed, teaching is often unidirectional, transdisciplinary approaches are far from the norm, and many would-be learners are excluded because of cost, accessibility, and perceived fit or lack thereof to their values and goals. A Canadian study (Henderson, Beiler, & McKenzie, 2017) found that while many educational institutions have initiated climate policies to address their own emissions and financial investments, few institutions are addressing climate education in their policies, and instead are focused on “changing the energy consumption behaviors” of staff and students as part of their overarching carbon reduction plans.

Effectively building climate adaptation capacity and societal resilience therefore, requires not only new content but also new more accessible and inclusive mechanisms of delivery (Veletsianos & Holden, 2020). Education to support capacity building for transformative agendas requires changes that transcend the approaches that have created the climate and other crises, and that have reconciliation, equity, diversity, and inclusion agendas as cornerstones (Fazey et al., 2020).

Authors and Partner organisations

**Facilitator:** Forssman, Vivian – Resilience By Design Lab, Royal Roads University  
Cox, Robin S. - Resilience By Design Lab, Royal Roads University  
Sparling, Erik - Climate Risk Institute  
Brooks, Janis – Indigenuity Consulting Group





session 278

Room 520E  
Hybrid

Equity & Justice

Subnational government innovation to integrate vulnerable community knowledge into adaptation planning and action

According to the RegionsAdapt Progress Report 2021-2022, vulnerable populations have severely constrained adaptive capacities and may be disproportionately affected by any additional stressors. In 2022, 74% of disclosing regions mentioned that climate hazards will affect vulnerable populations; however, only 67% of the reported climate risk and vulnerability assessments explicitly take such vulnerable populations into account. This highlights the gap between the harsh reality already faced by vulnerable populations and their lack of inclusion in assessments or planning.

At the international level, as parties try to define the metrics for the Global Goal on Adaptation, it is important to ensure that the most vulnerable populations, notably indigenous people, women and disabled communities’ participation is secured. Decisions on climate mitigation and adaptation should employ a rights-based approach to ensure that vulnerable groups are not unduly harmed by adaptation and mitigation practices.

Within this framework, Regions4 in partnership with the Government of Quebec, other regional governments from around the world, and leading research institutes, aim to bring into an knowledge exchange interactive presentation the impacts of climate change on marginalized and vulnerable groups, and why efforts to support adaptation must therefore grapple with profound questions of ethics, equity, and justice to leave no one behind.

Participants

Regions4 representative: Natalia Uribe, Secretary General  
Quebec representative: Jean Lemire, Envoy for Climate change, Northern and Arctic Affairs

session 579

Room 520F  
Hybrid

Governance & Finance

Global knowledge exchange event: Climate adaptation getting from assessment to implementation

As cities become engines of economic growth, many are also becoming climate vulnerability hotspots. A greater number of people, assets and economic activities are exposed to climate events as urban areas in the developing world continue to grow rapidly. Especially in Africa and South Asia.<sup>1</sup>

Building institutional capacity to support scaling up and accelerating climate adaptation is critical for building resilient cities and promoting social and economic development. Understanding climate change impacts and risks in the design and planning of urban settlements and infrastructure offer significant opportunities for enhancing human well-being into the future.<sup>2</sup> Analyses focusing on Africa show that the benefits of climate adaptation measures are almost always more than twice the costs, and often are more than five times higher.<sup>3</sup>

The goal of the event is to support the scaling up and acceleration of urban resilience building in the Deltas of Africa and Asia by sharing good practices around ‘Moving from understanding of climate risks to action on the ground’. The session will be opened through a short plenary welcome session followed by three round-table breakout room discussions of approximately an hour. The short plenary session will close the session.

The discussions will focus on issues key to the acceleration and scaling-up of inclusive urban adaptation, participants will choose one of the following discussions themes to participate in:

- Addressing urban informality in climate risk assessment and urban resilience building.
- Ensuring scaled down understanding of climate risk across Africa.
- Mobilizing domestic finance for urban resilience building in Asia.

Authors and Partner organisations

Global Center in Adaptation  
International Panel on Deltas and Coasts  
Government of the Netherlands  
Urban and Local Government Association Africa  
World Bank  
African Development Bank  
Asian Development Bank  
Deltares



## session 259

Room 519A

Governance & Finance

**Session panelists will include  
Coordinating Lead Authors from  
ARC3.3 Elements on:**  
Governance, Enabling Policy  
Environments, and Just Transitions  
Financing Climate Action  
Equity, Informality, and Development  
COVID-19, Cities, and Climate Change  
Urban Climate Change

## Key findings from UCCRN’s third assessment report on climate change and cities

The Urban Climate Change Research Network’s (UCCRN\*) panel session will share critical research takeaways and policy recommendations from the first five publications of UCCRN’s Third Assessment Report on Cities and Climate Change (ARC3.3). ARC3.3 builds on the First and Second Assessment Reports on Cities and Climate Change published by Cambridge University Press in 2011 and 2018. These assessments are the first-ever global, interdisciplinary, cross-regional, science-based assessment to address climate risks, adaptation, mitigation, and policy mechanisms in cities.

ARC3.3 will provide actionable, up-to-date, benchmarked knowledge for urban climate change researchers, city practitioners, and policymakers at all levels of governance to motivate rapid action. Adaptation Futures 2023 will be the first time that ARC3.3’s cutting-edge climate research will be released for discussion amongst a broad gathering of scholars and scientists.

### Session Goals

Identify the necessary traits of urban climate change governance, including leadership, legal frameworks, public participation mechanisms, information sharing, and financial resources at all levels of government

Explain the current state of climate finance and provide examples of equitable finance at the localized urban level

Define equity as a critical area of focus in urban climate change and highlight environmental justice and inclusive actions in cities

Evaluate the lessons learned from the COVID-19 pandemic and demonstrate that climate adaptation must be integrated into the pandemic recovery

Share the latest urban climate projections for 200+ global cities which can be used in climate risk assessment and policy

## Authors

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session 661

Room 519B

Governance & Finance

Financing NDCs in African countries:  
Fellowship program developed  
nine in-country case studies to  
convene dialogue on challenges and  
opportunities for collective climate  
finance leadership

The Paris Agreement (PA) has transformed notions of climate finance, alongside other types of support for means of implementation. Building on the PA, Nationally Determined Contributions (NDCs) have catalysed mixed efforts to mobilise a wide array of financing sources and mechanisms by public and private actors. Logical shift underpinned by the PA necessitates a re-conceptualisation of mobilising, allocating and scaling climate finance in the literature. Such a re-examination of the rapidly changing climate finance landscape is important, especially given that on climate finance in Africa is still dominated by notions of bi- and multilateral financial transfers. There is a need to understand countries’ needs/nature/effectiveness of climate finance, and their implications for climate co-operation and policy in Africa. In this context, this proposal facilitates dialogues by using in-country case studies comparing local contexts/realities with challenges/opportunities of climate finance landscape in African countries.

Authors and Partner organizations

**Chair/Moderation** Dr.Christine Grüning (FSFM), Dr.Joanes Atela (ARIN)

**LightningTalk** Case study authors

session 684

Room 518B

Indigenous Knowledge

Advancing First Nations climate  
leadership: Case stories from the  
National, Territorial, and Provincial level

In the face of a rapidly changing climate, First Nations have been raising their voice to call for rapid decarbonization, raising the profile of what First Nations Climate Leadership means. This panel brings together presentations by First Nations at the national, provincial (British Columbia), and territorial (Yukon) level to highlight how First Nations are not only uniquely experiencing climate impacts, but also uniquely well-positioned to develop strategies that address the climate crisis. The concept of a First Nations Climate Lens will be used to challenge conventional conceptualizations of First Nations as ‘vulnerable’ populations and the ‘passive recipients’ of climate impacts, instead framing them as ‘active leaders’ based on unique connections to the land, water, air, and more-than-human beings.

Authos and Partner organizations

Jocelyn Joe-Strack, Daqualama - Da-kal-a-ma - member of the Wolf Clan of northwestern Canada’s Champagne and Aishihik First Nation.

Jewel Davies - Yekhunashîn yu xhút duwáasakw - member of the Dakl’awedi (Eagle/Killer Whale) Clan.

Nika Silverfox-Young, identify as a Northern Tutchone woman, and a member of Little Salmon/Carmacks First Nation, and part of the Wolf (Egunde) Clan.

Carissa Waugh - Êkè Éwe - Kwanlin Dün First Nation

Graeme Reed, Strategic Advisor with the Assembly of First Nations (AFN), where he advocates for the inclusion of First Nations in international, national, and regional climate change and energy policy dialogues.

Nikita Kahpeaysewat is a Nehiyaw (Plains Cree) person born and raised in Moosomin First Nation, Treaty 6 Territory in Saskatchewan, Canada.

Patricia Rojas is the BCAFN’s Regional Climate Change Coordinator.



session 337

Room 518C

Nature-based solutions

Restoring degraded spaces for a resilient future: Approaches, opportunities and challenges

The 2022 Kunming-Montreal Global Biodiversity Framework requires ambitious restoration action by 2030 and acknowledges the important roles and contributions of indigenous peoples and local communities as custodians of biodiversity and partners in its conservation, restoration and sustainable use. As such, municipalities and Indigenous governments have a crucial role to play in restoring natural spaces in the places where people live and in ensuring climate-resilient and healthy communities. For Indigenous peoples particularly, degraded lands and waters are a direct threat to their culture and economy.

“Nature-based solutions” (NbS) is an umbrella concept that can refer to a range of intervention approaches, such as ecosystem-based adaptation and natural or green infrastructure. It is a concept that encompasses diverse actions aimed at addressing societal challenges by working with nature. Underpinning this concept is also the understanding that functioning ecosystems supply services to people, including many that decrease impacts from climate hazards. So, in addition to addressing societal challenges, NbS must benefit biodiversity and support the delivery of ecosystem services. As a subset of NbS, restoration refers to the process of assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed, and of regaining ecological functionality. As such, natural or green infrastructure (as opposed to conventional “grey” infrastructure) plays an essential role, especially in cities dominated by hard surfaces, as it uses natural vegetative systems (trees and other vegetation), engineered and built features, and green technologies that collectively provide society with a multitude of economic, environmental, and social outcomes.

Nature-based solutions hold promise in addressing multiple challenges cost-effectively, but they remain underutilized. Gaps in awareness of NbS, collaboration, finance, enabling policy, and inclusiveness, as well as uncertainties in NbS performance are among the challenges raised globally and in Canada. Although efforts are underway to reduce barriers to NbS uptake and implementation, there is much effort needed to deploy NbS at a pace required to meet the climate and biodiversity challenges.

This session will discuss current approaches, frameworks and tools that are available to local and Indigenous governments to deploy tailored nature-based solutions to restore natural spaces in ways that maximize climate adaptation, resilience and equitable access to- and benefits from nature. In urban settings, tailored tools and data for decision-making are essential to identify priority areas for greening that maximize climate resilience and equity, including on vacant, contaminated lands. On Indigenous lands, approaches to restoration must be reciprocal, meaning that the enhancement, creation, or re-creation of habitats that aims to restore the environment as well as Indigenous human relationships with the land.

Authors and Partner organizations

Desjardins  
David Suzuki Foundation

session 524

Room 523

Adaptation Choices

What do we know about effectiveness of adaptation in reducing climate risks? A review of methodologies and evidence on adaptations in the agri-food systems

Anthropogenic climate change impacts every aspect of water and food security through changes in water availability and quality, increases in water-induced disasters, and changes in ecosystems and their services. In response to climate and non-climate induced water insecurity, people and governments around the world are undertaking various adaptation responses (Caretta & Mukherji et al. 2022; Kerr, Hasegawa and Lasco et al. 2022). While there are thousands of case studies of current implemented adaptation responses to water and food insecurity, there is a lack of synthesized understanding about the effectiveness of these responses in reducing risks.

In this session, speakers discuss methodologies and challenges for measuring effectiveness of adaptation and the various tools that can be deployed for the same by drawing upon examples from the agri-food sector. In doing so, the speakers will draw upon from the recently concluded IPCC WGII report, and from experiences of various scientific and implementing organisations including the CGIAR and look at a range of methodologies from impact evaluations, meta-reviews and satellite images (Reymondin, L.; Golden, A.; Spillan, C. (2022).

Authors and Partner organizations

Aditi Mukherji, Climate Impact Platform, CGIAR  
Tabea Lissner, Climate Analytics, Germany  
Elena Lopez Gunn, Icatalist, Spain  
Martina Angela Caretta, Lund University  
Ko Jawoo, IFPRI, Washington DC  
Rachel Bezner Kerr, Cornell University



session 410

Room 522

Governance & Finance

Calling those interested in closing the science-policy-practice gap in LDCs! How would you influence the priorities of a new action-oriented adaptation research programme?

This session provides an opportunity for Adaptation Futures conference delegates to influence the design of a new action-oriented adaptation research programme for Least Developed Countries (LDCs).

The Adaptation Research Alliance (ARA) is supporting the co-creation of a new programme to enable LDC researchers to contribute to and support their country's national adaptation priorities with new context appropriate transdisciplinary knowledge. This new programme could support locally-led adaptation, the development and implementation of National Adaptation Plans, or anything in between: it is up to the participants in the co-creation process to share their perspectives of what is needed. This co-creation process is being facilitated by a social enterprise called Interfer.

In this session, Interfer will feed back our findings. So far, the process has involved engagement with representative from LDC universities, governments, multilateral agencies and practitioners through interviews, conference sessions, in-country events and online workshops. We have surfaced the barriers to getting local research into policy and practice in LDCs and considered many innovative solutions to overcome these barriers.

Now, we would like to add your voice to this global conversation.

The proposed session has three main components:

- A presentation outlining the ARA Co-creation spaces, our process, and our findings to date
- A suite of exemplary examples of innovative solutions to the science-policy-practice gap in LDCs to learn from
- Your inputs in a round table discussion: What have we missed? What are your experiences and ideas around what has worked in LDCs? What would you like to see in the programme?

Authors and Partner organizations

**Authors:** Sheona Shackleton, Lucy O'Keeffe, Leigh Stadler  
**Lead organisation:** Interfer  
**Partner organisation:** Adaptation Research Alliance

session 736

Room 525

Adaptation Choices

The session fits within the conference theme of "Making adaptation choices: managing trade-offs and seeking effective adaptation", but has clear contributions also to the theme "Who wins, who loses, who decides: Equity & justice in adaptation"

Incentivizing equitable adaptation: Interdisciplinary perspectives

This knowledge-sharing open session will explore applied approaches to understand and support decision-making for equitable adaptation action. The starting points for the session are both the widespread creation of adaptation planning documents and business cases that suggest that anticipatory adaptation makes good economic sense. Despite this, evidence suggests that the move from planning and business cases to implementation and action is both insufficient and challenging, whilst at the same time often failing to serve the needs of the most vulnerable populations (Eriksen et al., 2021; Kodis et al, 2021; Nyiwul, 2021; Villamor et al, 2023). Further, differences in vulnerability and resources mean adaptation can serve to increase inequality across and within societies (Thomas 2018; Simpson et al. 2020).

This session will draw on papers that examine how to unlock incentives for equitable adaptation action. We aim to draw in interdisciplinary perspectives from submitted papers that focus on incentive structure. These may come from research on how climate services can incentivise more equitable adaptation, applied examples of how innovative governance approaches and public-private partnerships have unlocked action, and evidence of high-level leadership and business cases that have led to more equitable adaptation decisions from policy makers. We particularly welcome contributions on equitable adaptation from political science and perspectives from behavioural sciences.

Overall, the session will provide an opportunity for attendees to gain a deeper understanding of the challenges and opportunities associated with incentivizing equitable adaptation to climate change. The session will encourage attendees to think critically about the contribution of different disciplinary perspectives to understanding and promoting equity in adaptation decision making and action.

Authors and Partner organizations

**Chair/Moderator:** Thomas Tanner (SOAS University of London, UK)

**Presenters/papers**

**Savio Rousseau Rozario and Afsara Mirza** (ICCAD, Bangladesh) - Locally-led Adaptation to ensure indigenous peoples' participation: Case studies from Bangladesh

**Regardt Ferreira and Tim Davidson** (Tulane University, USA) - Consortium for equitable disaster resilience: Creating an equitable and just society

**Rizqa Hidayani** (Kota Kita, Indonesia) - A human-centered perspective in food security and climate justice: The role of informal actors and small-scale community-based Initiatives Case study of Jakarta and Solo, Indonesia

**Donovan Burton** (Informed.City, Australia) - Adopting adaptation in civil organisations - tipping points or theatre in governance of boards and civil society?

**Ifeoma Anugwa** (University of Nigeria Nsukka) - Intra-household gender perception and adoption of climate adaptation practices in climate disaster risk zones of southern Nigeria

**Discussants**

**Aditya Bahadur** (International Institute for Environment and Development, UK/India)

**Mairi Dupar** (Overseas Development Institute, UK)

**Nicholas Simpson** (Global Centre for Climate Mobility, South Africa)



session 875

Room 524A  
Collaborative

Limits to Adaptation

Reimagining the adaptation continuum to include loss and damage

The Adaptation Continuum (Weathering the storm, 2007) was a seminal conceptual tool for parsing out development and adaptation, and the range of adaptation activities that exist. Ten years after its publication, its authors reflected that the continuum highlighted how trying to sharply distinguish between development and adaptation was not helpful or reflective of ground realities, and that long term success meant abandoning the ‘adaptation vs. development’ rhetoric. They also noted that a focus on strict additionality could lead to potentially bad investments and unintended consequences.

Today, many of these similar issues are at the fore in the context of climate-induced loss and damage (L&D). Despite calls to include L&D within UNFCCC processes for decades, it was only at COP26 in Glasgow in 2021 that significant breakthroughs began to occur – led by the Scottish Government’s historic allocation of funds to explicitly address L&D – and continued at COP27 in Sharm El-Sheikh in 2022 with the agreement to establish a L&D Fund. Given this fight for acceptance, there seems to be a strong inclination to clearly distinguish L&D from adaptation – but the history of the continuum highlights the risks of doing so.

This session proposes to learn from experience implementing adaptation measures, briefly showcase examples of overlap between adaptation and L&D, and spend the bulk of the time to reimagine a continuum – or other conceptual framework – in which adaptation, disaster risk reduction, humanitarian action, and L&D can co-exist in ways that honor the reality of frontline communities’ lived experiences, while also being useful to the L&D Fund and other funders committed to L&D. The outcome of the session would be one, or multiple, diagrammatic frameworks that could be used to practically advance the current discourse around adaptation and L&D.

Authors and Partner organizations

The Climate Justice Resilience Fund (CJRF), the International Institute for Sustainable Development (IISD), and the International Centre for Climate Change and Development (ICCCAD) will co-host this session. Heather McGray (CJRF) and Anne Hammill (IISD) are the authors of the adaptation continuum, and Saleemul Huq (ICCCAD) is a veteran expert on adaptation and loss and damage. They will lead the first three sections of the session, supported by relevant partners in this work.

session 467

Room 524B  
Collaborative

Governance & Finance

Knowledge Co-production for the Global Goal on Adaptation

The session aims to contribute to the international discussion and process on the Global Goal on Adaptation (GGA). Article 7.1 of the Paris Agreement established the concept of a Global Goal for Adaptation (GGA) to ‘enhance adaptive capacity, strengthen resilience, and reduce vulnerability to climate change, with a view to contributing to sustainable development and ensuring an adequate adaptation response in the context of the temperature goal’. The GGA calls for adequacy in action and support for adaptation, requiring all parties to engage in and communicate their efforts to plan, implement, and monitor adaptation. Measuring the GGA needs trans-disciplinary approaches considering interactions of adaptation actions across sectors, and interactions between adaptation and development goals. Establishing the GGA requires a collective effort from global to sub-national levels of governance to identify indicators of adaptive capacity, resilience, and vulnerability.

The session will touch on questions such as:

**Knowledge creation/gaps**

What types of adaptation science are needed to support the implementation of the GGA? What are the main knowledge gaps? What type of data is available and what is missing?

**Definitions, Concepts and Indicators**

How does assessment of global adaptation differ from other levels?

How can the GGA support transformations toward more equitable and climate-resilient societies?

**Role of stakeholders/actors**

What are the incentives for private sector to support GGA?

Can the GGA facilitate dialogues between ranges of knowledge-holders for effective and context-specific climate adaptation?

Authors and Partner organizations

The proposed session is organized by the UN-led World Adaptation Science Programme (WASP), and the United Nations University, Institute for Environment and Human Security (UNU-EHS). WASP is one of the four pillars of the World Climate Programme. Its core vision is ensuring that climate adaptation knowledge gaps are filled to inform evidence-based policies, solutions and actions for successful adaptation to new climate conditions.

**Main organisers include:**

Dr Johanna Nalau, Griffith University and Co-Chair of Science Committee and Co-Chair of the GGA Working Group, World Adaptation Science Program

Dr Elisabeth Gilmore, Charlston University and Co-Chair of the GGA Working Group, World Adaptation Science Program

Dr Zita Sebesvari, United Nations University - Institute for Environment and Human Security

Dr Saskia Werners, United Nations University - Institute for Environment and Human Security

session 655

Room 524C  
Collaborative

Governance & Finance

Who is enabling effective and socially just climate adaptation? Frontline organizations as critical intermediaries in adaptation

International funding for adaptation is accelerating; vulnerable communities of the Global South are key beneficiaries (1). Nevertheless, evidence suggests funds may not be reaching those who need it most (1), and many projects implemented are failing to adequately address local needs, risk contexts, and intersectional concerns associated with power, equity and justice (2). Frontline organizations, or “meso-level organizations (MLOs),” work directly in and with populations that are typically targeted for adaptation support; these organizations play critical roles as intermediaries between ultimate beneficiaries (micro-level) and the policy and finance communities (macro-level). They not only facilitate the flow of finance, they also serve as conduits of local knowledge, experience, value and needs “upward” to higher-level organizations and sponsors (3). They also are key players in communicating “outward” the goals, visions and instrumental needs of organizations that sponsor adaptation to these beneficiaries. Nevertheless, there has been little attention to the distinct types of MLOs involved in adaptation program implementation and governance, and their differential capacities, strategies and structures. Better understanding of the roles played by MLOs in the practice and governance of adaptation resource flows, their capacities, strategies and barriers to effective operation, is important if adaptation finance is to not only address salient concerns of vulnerable communities, but do so in ways that are socially just and equitable.

We propose a knowledge co production session of 90 minutes (10 min introduction, 60 min for group interactions, 20 min plenary conclusion), in a World Café format, and designed for a diverse group of academic and practitioner co-collaborators. The key outcomes will be the identification of MLOs from attendee experience, crowd-sourced inventory of MLO capacities and challenges as adaptation intermediaries, and concrete ideas for enhancing the effectiveness of MLOs in equitable and sustainable adaptation project governance. This knowledge will inform the work of an international project focused on enhancing the effectiveness of MLOs in adaptation governance.

Authors and Partner organizations

- Nadine Methner and Mark New, African Climate Development Initiative, University of Cape Town, South Africa - organiser
- Hallie Eakin and Eric Welch, Arizona State University - organiser
- Moushumi Chaudhury, CARE USA - session collaborator
- Mark New, African Climate and Development Initiative, University of Cape Town

session 138

Room 520A  
LAC Pavilion  
Hybrid

Multiple Risks

**Co-Chairs:** Mauricio Luna-Rodríguez is a policy advisor with IISD’s Resilience Program. His work focuses on climate change adaptation, governance, and international policy for the National Adaptation Plan (NAP) Global Network. Mauricio has over 15 years of experience working in sustainable development with international and non-governmental organizations as well as research institutions.

Multilevel adaptation governance in dealing with multiple risks and enabling climate action at subnational levels

As we are confronted with increasing evidence of the growing, profound, and irreversible impacts of climate change, we face the urgent task of implementing adaptive strategies to reduce the negative impacts and leverage the limited opportunities that new climate conditions offer for the sustainability of society. Adaptive approaches, however, have operated as a reactive response to specific hazards, independently pursued by individual actors, and oriented to maintaining the status-quo. In this context, it is necessary to foster strategies able to integrate multiple forms of adaptation into climate-resilient and sustainable development pathways.

The session presents and discusses the initial results of an inter and transdisciplinary research project that pursues the development of regional and sustainable adaptive strategies in selected regions of four countries: Argentina, Canada, Chile, and Uruguay. The interdisciplinary component of the project seeks to assess and integrate the existing climate-related risks, vulnerabilities and adaptive practices in five sectors of each country—infrastructure, ecosystems, livelihoods, economic activities, and governance—the values that support these practices, and the climate scenarios that may frame the development of the existing and alternatives adaptive strategies.

Meanwhile, the transdisciplinary component seeks to identify, with the direct involvement of regional partners, potential adaptation pathways and related trade-offs to facilitate decision-making and the collective building of an adaptation plan. The papers presented and discussed in this session focus on the implementation and results of some initial research activities of the project. Through the analysis of secondary data and climatological records researchers from the four countries have collected information about the regional distribution of climate and water risks during the last twenty years, compound risks that occur simultaneously, followed by the implementation of focus groups to assess the complexity of the risk impacts, cascading through the sectors (livelihoods, economic activities, ecosystems, and infrastructure) and their degrees of exposure to the different hazards. The papers present the results of these two research activities. Thus, the focal point of the session is the second theme of the conference, which pays attention to the complex dimensions of multiple risks; compounding, cascading, and cross-border climate risks.

Authors and Partner organizations

- Presentation 1:** Dr. Cristina Zurbriggen, Nestor Mazzeo, Rafael Terra, Miguel Carriquiry, Carlina Crisci, Daniel Pérez. SARAS, Facultad de Ciencias Sociales, Universidad de la Republica
- Presentation 2:** Dr. Roxana Bórquez, Center for Climate and Resilience Research; Marco Billi, University of Chile and Center for Climate and Resilience Research; Bernardo Reyes, Vertientes del Sur. Santiago, Chile.
- Presentation 3:** Drs. Elma Montaña, and Paula Mussetta, Jorge Ivars, INCIHUSA-CONICET, Mendoza, Argentina.
- Presentation 4:** Dr. Amber J. Fletcher, Margot Hurlbert, Elaine, Wheaton, Barrie Bonsal, Darrell Corkal, Erin Hillis, Gabriela Beltrán, Abraham Bugre. Department of Sociology and Social Studies, University of Regina, Regina, Canada.

session 989

Room 520B  
Africa Pavilion  
Hybrid

Adaptation Choices

Food security in Africa: lessons learnt, opportunities, and priorities for adaptation

Africa’s population is expected to double to more than 2 billion people by 2050. Most of this population is expected to shift from rural to urban areas, potentially affecting food production, demand, and supply patterns. This introduces the need for an elaborate review and re-engineering of Africa’s food systems in the context of availability, accessibility, utilization, and sustainability. This session shall highlight the progress made towards Africa’s food system transformation in the context of climate change and just transition. Additionally, the session shall explore the role of research and innovation (R&I) in Africa’s food system transformation in the context of climate change adaptation. Here, researchers from the African Research Initiative for Scientific Excellence (ARISE), working at the food security-climate change nexus across Africa, shall present insights from their work – highlighting advances made, lessons learnt as well as opportunities, needs, and priorities for adaptation.

ARISE is a flagship initiative aimed at advancing the African Union-European Union Innovation Agenda, one of whose actions is fostering the development and enhancement of sustainable and resilient agricultural and food systems value chains to improve food and nutrition security and sustainable agriculture. With an initial support of €25 million from the European Union, the current pilot phase supports 45 researchers in 38 African countries with 5-year research grants of up to €500,000. The 45 researchers are supported to create teams comprising postgraduate and post-doctoral researchers, resulting in a cohort potentially exceeding 600 researchers across many countries.

Authors and Partner organizations

Moderator:

Dr. Peggy Oti-Boateng, Executive Director, AAS  
Dr. Obed Ogega, Programmes Manager, AAS

Keynote Speakers:

Prof. Lise Korsten, AAS President and Co-Director of the Department of Science and Innovation, Centre of Excellence in Food Security, South Africa  
Dr Agnes Kalibata, AGRA President (TBC)  
Spotlight presentations (ARISE Fellows)  
Dr. Jessica Thorn, University of Namibia, Namibia  
Dr. Thomas Kivevele, Nelson Mandela University of Science & Technology, Tanzania  
Dr. Celimphilo Mavuso, University of Eswatini, Eswatini  
Dr. Sonia Semedo, Universidade de Cabo Verde, Cape Verde  
Dr Koffi Kibalou Palanga, Université de Kara, Togo  
Dr. Alassan Assani Seidou, University of Parakou, Benin  
Dr. Geoffrey Onaga, Africa Rice Center, Cote d’Ivoire  
Dr. Sarobidy Rakotonarivo, University of Antananarivo, Madagascar

session 277

Room 520C  
Hybrid  
Equity & Justice

“South”, the new frontiers of adaptation in the “North”? An ideas’ market place

Adaptation is often framed as a North-South stream of capacities (finance, human resources, knowledge) flowing through Development Aid framework or through dedicated UNFCCC-related structures such as the Adaptation Fund or the Green Climate Fund.

Of course, efforts are still needed to meet financial commitments and adaptation costs (cf. UNEP adaptation gap report 2022), and to improve research funding that is unequally deployed, especially as regards Africa (Trisos, Adelekan, Totin et al., 2022; Overland et 2021).

However, Global South as actors in the frontline of adaptation have advanced their capacity to adapt beyond that of countries in the Global North. As an example, Bangladesh epitomizes such an incongruity, by being both one of the most vulnerable and one of the most advanced countries in adaptation. South-South experience sharing is also fast growing (e.g. through LUCCC, LEG, PAS-PNA, LDC Group, etc.), although challenges to overcome language barriers remain (e.g. for francophone Africa).

Conversely, this session aims at exploring a different stream of knowledge and experience, from “South” to “North”. It is based on the assumptions that:

- (1) the experience gained by developing countries can offer a wealth of adaptation knowledge in developed countries, whether it be in terms of framing or in terms of potential solutions;
- (2) a South-North stream of knowledge can be mutually beneficial and needs to be strengthened;
- (3) specific organisational arrangements should be explored to foster this dialogue.

This session will tackle the following questions:

- what are the previous experiences in terms of the South-North knowledge stream related to adaptation?
- what topics or tools would be the most relevant to share in priority (e.g. hard limits of adaptation, participation and inclusiveness, a specific sector, etc.);
- what would be the most effective format to share this kind of experience between representatives of “South” and representatives of “North”?
- how to make this knowledge sharing actionable?

Authors and Partner organizations

Christophe Buffet (AFD), Vivian Dépouès (I4CE) and Imane Bourkane (AFD)  
Saleemul Huq (ICCCAD)  
Lisa Schipper (GIUB)

session 75

Room 520D  
Hybrid

Adaptation Choices

Integrating mitigation and adaptation into the feasibility assesment approach for improved support to climate-resilient development

First introduced in the IPCC Special Report on 1.5 °C global warming and further elaborated in the 6th Assessment Report, the “multidimensional feasibility assessment” (FA) framework has gained increasing attention from policymakers. The FA approach has several advantages over other approaches for assessing the potential of adaptation and mitigation, namely, cost-benefit analysis or other approaches that focus on single and often only economic dimensions. First, the FA provides a disaggregated synthesis of barriers and enablers along multiple dimensions that facilitates targeted interventions and risk management. Second, adopting a systems transitions perspective highlights how interactions, synergies and trade-offs between individual options emerge and for prioritization across portfolios. Further, the FA also allows for the assessment of linkages between adaptation, mitigation and the Sustainable Development Goals that underpin climate resilient development. In addition to providing valuable guidance – on where adaptation and mitigation responses have high feasibility to yield more impacts, why this is the case, and where efforts are needed to remove additional barriers – these assessments also reveal where more information is needed.

We call for a session on FA to bring scientists, practitioners and policymakers together to discuss and get their perspectives on the FA framework and how it can be improved to better support the synthesis of science for policy needs. Specifically, the session will:

- share best practices and lessons learned about the assessment of adaptation/mitigation feasibility;
- explore actionable steps to use the framework for applications beyond the synthesis of peer review literature towards expert assessments in the ‘real-world’;
- refine the framework for integrated - adaptation/mitigation – assessment.

Authors and Partner organizations

WG2 and WG3 authors to present the framework, methodology and scientific perspective;

Policymakers to discuss how the framework can be relevant to their work and areas where the methodology can be improved;

Practitioners to highlight some of the gaps in the FA framework and how it can be refined for its effective use with communities and serve as an appealing approach for participatory assessment;

Development world (UNEP) and partner organizations that have used the approach before to share their experience about the robustness and the value of the FA framework.

session 113

Room 520E  
Hybrid

Indigenous Knowledge

Ocean and climate crisis in the Pacific: An indigenous perspective

This roundtable session provides a discussion on climate crisis from a Pacific Islands standpoint through the lenses of Indigenous and local peoples’ knowledge, voices, and expertise in relation to adaptation, research, policies, practices and actions.

Indigenous knowledge and approaches to framing adaptation, mitigation and resilience strategies relating to climate crisis is gaining traction because of the deep symbiotic connection between the environment and indigenous cultures and peoples. Indigenous peoples have been stewards of lands, waters and oceans for generations anticipating and responding to climate variability and change. There is increasing recognition of the value of community expertise, plurality of knowledges, including Indigenous Knowledges (IK) and Local Knowledges (LK) for informed climate resilience pathways. IK & LK’s are significant in framing climate change responses across genders, class and generations in addition to its place-based local practices. There is a growing consensus among climate scholars and practitioners that climate adaptation strategies and policies should use the best available knowledge, with exchange and interaction between IK / LK and “Western” knowledge.

The session will include researchers from the Pacific Ocean Climate Crisis project, a joint research project between the University of the South Pacific (Fiji) and University of Canterbury (NZ), funded by the NZ Ministry of Foreign Affairs to provide an Indigenous led, interdisciplinary, multi-methodological and integrated assessment of the climate crisis and oceans covering 16 countries in the Pacific region. It gives voice to Pacific voices in a research space dominated by Global North scientists and policy thinkers.

Authors and Partner organisations

- Facilitator:** Distinguished Prof Steven Ratuva (University of Canterbury)
- Dr Christina Tausa (University of Canterbury): “Voices from Samoa on the climate crisis”
- Dr Dalila Gharbaoui (University of Canterbury): “Experiences of Climate (im) mobility in Fiji”
- Dr Suli Vunibola (University of Canterbury): “Pacific methodologies and indigenous knowledge from local communities”
- Prof Joeli Veitayaki (University of South Pacific) “Ocean, costal management and climate adaptation: Challenges and opportunities at grassroot level”
- Prof Viliamu Iese (University of South Pacific) “Pacific stories on Climate crisis, loss and damage, disaster and risks”

room 520F

Side event





session 180

Room 519A

Adaptation Choices

Organisatrice de session :

Mme Nathalie Bleau – Ouranos -  
Montréal, Québec, Canada

Présidente de session :

Prof. Sophie L. Van Neste - Institut  
national de recherche scientifique  
(INRS), Chaire de recherche du  
Canada en action climatique urbaine -  
Montréal, Québec, Canada

La nécessaire adaptation  
transformationnelle : une combinaison  
de recherches et d’actions

Depuis 2014, l’adaptation aux changements climatiques occupe une place plus im-  
portante dans les rapports du GIEC. Le sixième rapport propose quelques mots clés  
pour une nécessaire adaptation qui se doit d’être efficace et efficiente. Il y est ques-  
tion de collaboration et de complémentarité des savoirs scientifiques, techniques et  
traditionnels ; de solutions basées sur la nature ; de justice sociale ; et de transfor-  
mation. On doit ainsi passer d’une vision de l’adaptation qui recourt à des correc-  
tions, des ajustements, dite adaptation incrémentale, à une vision «évolutive» par  
la transformation des systèmes, des pratiques, des comportements, des processus,  
des décisions. Malgré ces signaux lancés par le GIEC, force est de constater qu’au-  
jourd’hui encore, les actions en adaptation relèvent beaucoup plus de correction et  
d’ajustement que de remise en cause des valeurs, des mécanismes, des systèmes  
en place. Pourtant, cette remise en cause est essentielle pour répondre au wicked  
problem que sont les changements climatiques et aux adaptations justes qu’ils re-  
quièrent.

En Occident, l’adaptation dite incrémentale progresse, on voit de plus en plus d’ac-  
tions de déminéralisation et de verdissement à petit et grand déploiement, la création  
de corridors écologiques qui permettent la migration des espèces, la sélection de  
cultures plus résistantes à la sécheresse, des initiatives de conservation (protection,  
restauration et aménagement durable) des territoires, on développe des systèmes  
d’alerte et des initiatives de soutien aux plus vulnérables, on adapte des bâtiments,  
des infrastructures et de la machinerie, on modifie des règlements et des lois. Tou-  
tefois, bien trop rarement on remet en question nos normes sociales, nos pratiques  
et nos comportements : façons de consommer, d’utiliser l’espace, de prendre des  
décisions ; bien trop peu on se préoccupe des dynamiques des systèmes sociétaux,  
environnementaux, économiques et institutionnels pour lutter contre les change-  
ments climatiques.

Alors que l’adaptation incrémentale vise à s’adapter aux conséquences des change-  
ments climatiques, l’adaptation transformationnelle cherche à créer des altérations,  
évolutives dans le temps, au sein des systèmes producteurs de vulnérabilités. Tou-  
tefois, bien que conceptuellement, l’adaptation transformationnelle tient la route,  
sa mise en œuvre manque d’exemples et on peut s’interroger sur sa pratique réelle.

Présentateur.trices ou invité.es (à définir)

Prof. Isabelle Anguelovski - Universitat Autònoma de Barcelona, Institute for  
Environmental Sciences and technology - Barcelone, Espagne (en virtuel)

Lisa Hiwasaki - University of Rhode Island - Kingston, Rhode Island, États-Unis

Mme Liza Leclerc – Stantec – Montréal, Québec, Canada

Mme Mélanie McDonald – Chemins de transition/Université de Montréal –  
Montréal, Québec, Canada

Dr. Guillaume Simonet - Réseau d’expertise sur les changements climatiques en  
Occitanie (RECO) – Toulouse, France





session 331

Room 519B

Governance & Finance

Financing Adaptation and Building Resilience: Developing a Gender Lens Climate Investment Framework

Financial resources required to address global adaptation challenges are dauntingly large. To date, a significant portion of adaptation finance has come from international agencies and developed country governments. However, there is a growing concern that these existing funding commitments lack gender and social inclusion lens, particularly what opportunities should be ring-fenced for women-led adaptation actions at the local level. Quantifying gendered outcomes in relation to climate/development finance has generally been the purview of academia and one-off impact evaluations. Moreover, there is limited rigorous research on the efficacy of these approaches. More evidence is required to support workable investment strategies that pursue climate change solutions with explicit gender transformative objectives such as women as leaders, managers, entrepreneurs, consumers, and employees.

The main purpose of this session is to discuss how can adaptation investments can be made gender sensitive and can be channeled to key local actors such as women and marginalized groups that face high barriers to accessing finance. Some past studies have confirmed that small women-lead businesses are engines of innovation and can bring with them understanding of local markets, land, skills, and networks needed to overcome practical growth challenges. There are a host of challenges that all micro, small and medium-sized enterprises (MSMEs) face in low- and middle-income countries (LMICs), from missing market functions to technical capacity, but access to capital is a key barrier that constrains the growth of most green and women-owned businesses. The inability to access capital is a greater challenge for women led MSMEs, as most funds are disbursed in large amounts, while women are mostly involved in micro-scale enterprises that face barriers to accessing these funds.

Authors and Partner organizations

- Author:** Dr Bhim Adhikari, International Development Research Centre (IDRC)
- Partner organisations**
- Dr. Joanes Atela, Africa Research Impact Network (ARIN), Kenya
- Dr. Shehnaaz Moosa, Climate and Development Knowledge Network (CDKN), South Africa
- Ms. Andrea Fonseca, Libélula, Peru
- Mr. Raju Pandit, Prakriti Resources Center (PRC), Nepal
- Dr. Vishal Singh, Centre for Ecology Development and Research (CEDAR), India
- Dr. Victoria Plutshack, Nicholas Institute | Duke University, USA
- Mani Ram, Banjade SIAS, Nepal
- Srijana Baral, ForestAction, Nepal

session 748

Room 518B

Indigenous Knowledge

Engaging Indigenous and local people in the co-development of knowledge and resources to enhance climate action and mutual learning

An important shift is taking place globally, towards more inclusive and collaborative ways of working together, including with Indigenous Peoples and local communities (IPLC). In many parts of the world, IPLC are at the forefront of climate action showing leadership and advocating for the respectful consideration of their diverse knowledge systems. IPLC knowledge systems are “maintained through an inter-generational historical connection to place and nature through livelihoods, cultural identity, languages, worldviews, institutions, and ecological knowledge” (IPBES). These knowledge rich systems contain important climate-related information while often being holistic in nature, critical to identifying and understanding the systemic nature of the problems presented by climate change and identifying and implementing effective solutions. As such, this emerging shift in working with IPLC needs to be enhanced and the results of such better integrated into decision-support processes.

The members of this session’s panel will explore the successes and challenges they have experienced when working to bring forth these diverse knowledge systems. They will engage in active two-way dialogue with the audience with the aim of enhancing the sharing of experiences and mutual learning. Deliberations will include considerations around policy, programming, governance and means of knowledge sharing (e.g., web-based climate adaptation platforms).

Authors and Partner organizations

- Damian Morgan-Bulled - Yorta Yorta Traditional Owner Land Management Board.
- Mandy Hopkins and Scott Power - The Centre for Applied Climate Sciences, University of Southern Queensland.
- Siosinamele Lui – SPREP
- Tbd - Canadian Centre for Climate Services
- Roger Street – University of Oxford (moderator)
- Kim van Nieuwaal (moderator) & Menno van Bijsterveldt - Climate Adaptation Services
- Julia Barrott – Stockholm Environment Organisation
- Marcus Leitner, Environment Agency Austria

## session 715

Room 523

Adaptation Choices



## Resilience through environmentally sustainable agriculture production

Climate change is a major threat to our agricultural system requiring new ideas and innovations to support farmers to adapt to and mitigate this threat. MEDA supports the sector with an approach emphasizing the economic, social, and environmental impact on agri-food market system. Our experience has also shown that when businesses are supported in their growth in a gender inclusive and environmentally sustainable manner, the benefits are longer lasting and wider reaching. We refer to this as our triple impact approach.

This session proposes 4 presentations starting with an introduction to MEDA's Guide to Approaches to Environmentally Sustainable Agriculture Production, which promotes 14 production-oriented agricultural objectives to support small-scale food producers and farming families in strengthening their production systems and practices. This includes support for: farm management and planning, crop management, production financial management, market and product opportunities, soil carbon and nutrient management, climate change adaptation, efficient use of water and energy, protection of biodiversity and natural ecosystems, waste reduction, post-harvest management, and food safety and workplace safety.

The following three presentations will focus on the application of elements of the guide within three projects within Philippines, Ghana and Kenya. The presentations will be made by environmental specialists embedded with these projects and who have intimate knowledge of the challenges and opportunities they face in the application of sustainable agricultural practices within the unique project contexts.

### Proposed Moderator and Presenters

**Moderator:** Dennis Tessier, Technical Director, Environment and Climate Change, MEDA

- Presenters:**
- Dr. Zakaria Issahaku, Market Systems Specialist, MEDA
  - Roderick Volones, Market Systems Technical Lead, Resilience and Inclusion through Investment for Sustainable Agrikultura (RIISA) Philippines
  - Cynthia Kutir, Environnment and Climate Change Manager, GROW2
  - Jospeh Kuria, Environmental Specialist, Leveraging Equality for Gender-Inclusive Economic Development (LEGEND) Kenya

session 392

Room 522

Adaptation Choices

What is effective adaptation, for whom, and how do we know? Findings from adaptation policies, NAPs and M&E on vulnerability assessments, measurments and effectiveness

Adaptation is required to tackle the widespread, rapid, and intensifying impacts of climate change. It is equally important that the success or failure of such adaptation is monitored and evaluated. This ensures that the adaptation is effective and reaches especially those most vulnerable to the impacts of climate change. The current evidence of effective adaptation is vast but scattered, which increases the risk of maladaptation.

The Adaptation Gap Report (UNEP 2022) highlights that the adaptation finance gap in developing countries is likely five to ten times greater than current international adaptation finance flows and continues to widen. As such, it is imperative that already scarce adaptation finance supports adaptation measures that have well thought- through theories of change based on vulnerability assessments and provide a clear link to adaptation benefits for vulnerable people. This further underscores the importance of ensuring the effectiveness through rigorous monitoring, evaluation and learning (MEL) that can justify expenditures, meet the growing demands for accountability of financial resources while supporting learning on managing climate risks.

This session answers the following questions:

- How can progress reporting enhance the implementation and effectiveness of National Adaptation Plans, and what can be learned from existing practices?
- What is the state-of-the-art evidence on effective adaptation?
- How can adaptation planning and policy design improve to ensure robust adaptation?
- How can vulnerability assessments facilitate reaching those most vulnerable to the impacts of climate change?
- How can effective adaptation be measured using indicators?
- How can we ensure learning occurs from MEL processes and throughout the adaptation policy cycle?

Authors and Partner organizations

William Solecki, University of New York - Hunter College  
Dorothee Fehling, Kiel University City  
Marta Olazabal, Basque Centre for Climate Change, BC3  
Majorie Ménard, Perspectives Climate Research (PCR)  
Kevin Moull, German Institute for Development Evaluation (DEval)  
Émilie Beauchamp & Shafaq Masud, International Institute for Environment and Development (IISD)

session 784

Room 525

Equity & Justice

Achieving equity in climate change adaptation research and partnerships: Discussion panel and Launch of the edited book “Climate Justice in the Majority World”

This interactive session will focus on the issue of inequitable partnerships and epistemic (knowledge) injustice in the context of adaptation planning and implementation. In both academic and professional contexts, the relationships between Western (or Minority World) and developing country (or Majority World) partners are frequently skewed in favor of the former. This leads to adaptation that fails to understand the local context and is constrained by a narrow body of (usually Western) knowledge and values that it follows. This inequality is one of the main concerns of Climate Justice in the Majority World – a recently published edited collection featuring contributions from authors from across the Majority World. The book reflects a deliberate commitment on the part of the editors and the authors to foreground the diverse ways through which people make sense of their relationships with the climate and their environments. The book captures multiple epistemologies and ontologies of people who experience climate change and environmental challenges first-hand, often in conjunction with the aftermaths of colonisation, neo-liberal economic development models, increasing socio-economic inequalities, and general lack of recognition for their own lived realities.

In addition to serving as an occasion to formally launch the book, this session will build on its key arguments in an interactive and diverse setting. The main part of the event will consist of a panel featuring two book editors (M. Mikulewicz in person & K. Michael remotely), three Majority-World-based chapter co-authors and one Minority World chapter co-author (Patricia Perkins). Questions for panelists include:

- What are the main barriers to creating and maintaining equitable adaptation partnerships and knowledge exchange between Minority and Majority World actors? To what extent are these barriers purely financial vs. being rooted in other causes?
- How does one overcome the intra-country inequities in design and implementation (e.g. urban elites hijacking adaptation planning in rural areas) often found at the local level?
- Can you share an example of a successful adaptation project or initiative that increased overall adaptive capacity while promoting such equitable partnerships?
- What are some of the strategies or resources you would suggest to professionals, activists and academics who wish to decolonize their practice in working with Majority World partners?

Authors and Partner organizations

Kavya Michael, Chalmers University, Sweden  
Michael Mikulewicz, SUNY College of Environmental Science & Forestry, USA  
Neil Crawford, University of Leeds, UK





session 812

Room 524A  
Collaborative

Limits to Adaptation

The values of adaptation pathways for planning under adaptation limits

To consider uncertainty and embed flexibility in adaptation planning, practitioners and scholars advanced “adaptation pathways”. Adaptation pathways are forward looking approaches that comprise sequences of possible actions that can be implemented over time, depending on future dynamics. They allow for dealing with uncertainty in adaptation planning, whilst anticipating triggers and thresholds for action. The co-production of pathways has shown to build capacity for responding to change and anticipatory adaptation.

The concept was introduced into adaptation planning a decade ago, which means that Adaptation Futures 2023 provides an excellent opportunity to reflect on the lessons learned and look ahead to new challenges for adaptation planning. In particular, with the publication of the IPCC Sixth Assessment Report and recent climatic extreme events around the world, it has become evident that adaptation is constrained by soft and hard limits, which restrict the space in which pathways can be developed and raise questions about the feasibility and scope of transformative adaptation.

The aim of the session is to discuss how adaptation pathways can be designed and implemented in contexts experiencing severe climate impacts. More specifically, the session will explore the conditions and mechanisms for effective integration of transformational change, adaptation limits and systemic resilience into adaptation pathways in different contexts. Learning about the pre-conditions, challenges, and opportunities for developing anticipatory ‘transformative adaptation pathways’ in the context of large scale change and in the presence of both hard and soft adaptation limits is relevant for policy and practice as we prepare to reduce the risks of future climate change at different scales.

The session will bring together different stakeholders from research to practice to discuss conceptual and empirical experiences with pathways approaches and the utility of adaptation pathways in the context of development and adaptation limits. We expect to identify pre-requisites and mechanisms for effective adaptation planning under large-scale, transformative changes. We pay special attention to the role and engagement of different actors, ranging from communities, to government and private sector, in order to unpack the different knowledges and value sets these actors bring to the table.

Participants

- Saskia Werners, UNU-EHS, Germany & Wageningen University, NL
- Edward Sparkes, UNU-EHS, Germany
- Edmond Totin, Université Nationale d'Agriculture, Benin
- James Butler, Cawthron Institute, New Zealand
- Russell Wise, CSIRO Environment, Australia
- Katharine Vincent, Kulima Integrated Development Solutions, South Africa
- Sarah McKenzie / Alice Muller, WorldVision
- Mieke Bourne, ICRAF
- Veronica Doerr, ACIAR
- Anna Taylor / Nadine Methner, ACDI, Univ Cape Town
- Hallie Eakin, School of Sustainability ASU, US
- Lisa Schipper, University of Bonn, Germany

session 205

Room 524B  
Collaborative

Multiple Risks

Compound, cascading and complex climate risks and their impacts: getting from methodological advancements to practical outcomes

There is a growing understanding that climate adaptation and risk reduction strategies need to account for multiple hazards and their interrelationships (e.g., compound and cascading), as well as dynamics of exposure, vulnerability and responses across economic sectors, systems and borders. In addition, we are continuously reminded that impacts are not linear, as they propagate across spatial, sectoral, and governance boundaries, making it difficult to account for their complexity or manage their impacts. Compounding hazards and shocks reveal risks that expose the vulnerabilities of interdependent social-ecological systems, resulting in cascading impacts on the built and natural environment, disrupting economies and affecting human and ecosystem well-being. In addition, multiple types of human responses that aim to reduce risks in one system or for one group can exacerbate impacts in another system, region or for another group. Most often this happens in systems deemed less ‘important’ such as ecosystems, and among groups who are already vulnerable and marginalised. Complex risks do not operate within system boundaries, with interconnected vulnerabilities, risks and impacts underscoring the need to move from hazard-by-hazard and sectoral approaches to comprehensive all-hazard and multi-risk approaches of understanding, assessing and adapting to risks.

Given the prominence of the topic, there is a growing body of methodological advancements in assessing these types of risks and impacts. However, as the topic is gaining momentum, it is important to consider what needs to be done to transform cross-cutting scientific research into practical outcomes on the ground, ultimately informing adaptation action for a diverse set of stakeholders.

Participants

- Robert Sakic Trogrlic, International Institute for Applied Systems Analysis, Austria (co-chair and presenter)
- Julius Schlumberger, Deltares, The Netherlands (session organiser and presenter)
- Edward Sparkes, UNU-EHS, Germany (session organiser and presenter)
- Michael Hagenlocher, UNU-EHS, Germany (presenter)
- Marleen de Ruiter, VU University Amsterdam, The Netherlands
- Nicholas Simpson, University of Cape Town, South Africa
- Demet Intepe, Practical Action, United Kingdom
- Arielle Tozier de la Poterie, German Red Cross, Germany
- Dorothy Heinrich, Red Cross Red Crescent Climate Centre, The Netherlands
- Stefan Hochrainer-Stigler, International Institute for Applied Systems Analysis, Austria
- Stefan Schneiderbauer, UNU-EHS, Germany & Eurac Research, Italy & University of the Free State, S-Africa
- Yvonne Walz, UNU-EHS, Germany
- Sumana Banerjee, Jadavpur University, India
- Mr Marlon Vieira Passos, Stockholm Environment Institute, Sweden (presenter)

session 693

Room 524C  
Collaborative

Governance & Finance

Turning knowledge into Action:  
Workshop on linking adaptation  
assessment and adaptation  
implementation through Indigenous  
projects

This workshop will provide an opportunity for participants to discuss challenges and best practices for integrating adaptation assessment into adaptation implementation using key Indigenous projects as examples.

The workshop will include two parts:

Breakout groups

Two breakout groups will be planned, one on adaptation assessment and another one on adaptation implementation. These breakout groups, to be held concurrently, will be an opportunity for participants to exchange ideas, and discuss key topics in small groups, such as challenges with integrating assessment and implementation, best practices for bridging the gap, and lessons learned. Indigenous partners will be on hand in each group to showcase example projects from their communities and prompt discussion on how this issue can be addressed from an Indigenous context.

Knowledge exchange

After the breakout rooms, the two groups will join together to share what they have learned with each other and exchange further ideas on how to more effectively use knowledge and information gained during adaptation assessment to inform actions during implementation of adaptation projects.

This workshop will particularly tie in with Theme #8 of the conference themes, in that it will be an opportunity for participants to explore and discuss inclusive governance mechanisms and effective decision-making processes that help to turn knowledge into effective climate action. Highlighting Indigenous projects as examples will be particularly critical, as Indigenous peoples have a holistic view of climate adaptation, and Indigenous knowledge and expertise in this regard can be pointed to as best practices.

Expected outcomes of the session include knowledge exchange on challenges, best practices and lessons learned to better integrate climate adaptation assessment and implementation that participants can bring forward in their own initiatives.

Participants

Indigenous Services Canada (ISC) and Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) will facilitate and moderate the breakout rooms and knowledge exchange discussions.

Indigenous partners will be invited to participate as expert examples in the breakout groups, and help demonstrate Indigenous-Canadian programming in assessment and implementation, such as through the Indigenous Community-Based Climate Monitoring Program and the First Nation Adapt for assessment initiatives, and the First Nations Infrastructure Fund and the Climate Change and Health Adaptation Program for implementation initiatives (TBC).

session 221

Room 520A  
LAC Pavilion  
Hybrid

Indigenous Knowledge

Outcomes

Attendees will learn how respectfully engaging with Indigenous communities and centring their perspectives in program design and implementation is crucial for building climate resilience. Doing so not only improves donor-funded project outcomes, but more importantly redistributes power and control over rights and resources into the hands of Indigenous communities. With this session, we hope that attendees can learn effective ways for integrating gender, equity, and social inclusion (GESI) principles into climate adaptation and resilience programming.

Centering Indigenous perspectives in  
climate resilience planning

Knowledge sharing session (one-way) where Indigenous leaders will share information about best practices for strengthening climate resilience by centring Indigenous Peoples’ perspectives in climate programs. This panel will feature Indigenous and women leaders who will share insights on how centring Indigenous visions in the design, planning, and implementation of climate programs can deliver both adaptation and mitigation outcomes and distributive climate justice goals

Participants

**Raymond Martinez, Director of the Department of Environmental and Cultural Preservation (DECP):** Abt Associates has a long history working with the Pueblo de San Ildefonso in developing a climate action plan that is community driven and centered around their community vision. The Pueblo is now focused on implementing their priority climate adaptation actions. Raymond Martinez will describe their community-focused approach to develop climate resilience actions that preserve and sustain key aspects of their community’s life for future generations and describe challenges and opportunities in pursuing various funding opportunities to implement actions.

**Rita Spadafora, Program Lead, FSC Indigenous Foundation:** Ms. Spadafora will share how the FSC Indigenous Foundation (FSC-IF) is supporting the implementation of the Indigenous Women of Panama’s Economic Empowerment Plan (PEMIP 2025). The plan is a comprehensive and pioneering initiative that seeks the full inclusion and effective exercise of the socioeconomic rights of Panamanian Indigenous women, based on their self-determination. It creates a space to convene multi-sectors including public and private actors to bring resources and commitment to support the Indigenous women of Panama. Ms. Spadafora will share how the FSC Indigenous Foundation (FSC-IF) is supporting the implementation of PEMIP through three of its components including ancestral cultural restoration, leadership, and governance.

**Carla Cardenas, Forest Trends/People’s Forest Partnership:** Launched in COP26, the Peoples Forests Partnership aims to use the voluntary carbon markets to assure equitable, accessible, and culturally appropriate investment partnerships with Indigenous Peoples and Local Communities (IPLCs) to protect the environment, while setting the best-in-class standard for forest communities to engage with climate finance. Ms. Cardenas will share insights about how the partnership was developed and launched with Indigenous Peoples and Local Communities in the driving seat, and how this partnership can equitably build climate resilience.

**Daniel Peniston, Climate Adaptation and Resilience Specialist, Abt Associates (Moderator):** Daniel has experience in climate adaptation, climate policy, responsible forest management, and in supporting Indigenous-led forestry and climate programs. He will moderate the session.

## session 421

Room 520B  
Africa Pavilion  
Hybrid

Teaching & Learning

### Youth climate adaptation leadership: Insights from capacity building programs and lessons from the field

What can we learn from the recent series of fellowship and capacity strengthening programs aimed to equip research and policy fellows to play a leadership role in advancing the field of adaptation in Africa and in the global south? How can scholars benefiting from those fellowships work with private sectors young entrepreneurs aiming to transform the agriculture and food systems in Africa in a more inclusive and sustainable way? In collaboration with AfDB and the Frankfurt School, IDRC proposes a session bringing around the same table representatives from some of the following programs:

- The One Planet Women fellowship program through the AWARD initiative
- The Africa Climate Leadership Program (AfriCLP) and the following West Africa Climate Leadership Program (WestAfriCLP)
- The NDC Finance Fellowship Program and the Adaptation Finance program through the Frankfurt School
- A group of young entrepreneurs leading agricultural transformation on the ground in Africa, and supported by the AfDB via the African Adaptation Acceleration Program (AAP)

The participants will react to the following questions:

- Where are you now in your career, and how have the fellowship programs you participated in or the support you received helped you to get there?
- How have the fellowship and acceleration programs helped Youth to become leader in the adaptation domain, in academia, policy and private sector?
- What are the key ingredient of a successful capacity strengthening program in the adaptation domain
- What are the specific challenges and opportunities for women in the adaptation domain, in particularly linked to capacity strengthening in research and in the private sector?

This session will benefit researchers and practitioners and will be listening to from the audience to inform these initiatives moving forward.

### Participants & Partner organizations

**Session Lead:** Christine Grüning, Senior Projekt Manager, Frankfurt School-UNEP Collaborating Centre for Climate & Sustainable Energy Finance

**Session Chair:** Michele Leone, Senior Program Specialist, Climate Resilient Food Systems, International Development Research Program

**Session co-chair:** Edith Ofwona Adera, Lead Coordinator, African Adaptation Acceleration Program (AAP), African Development Bank

**Facilitator:** Jemimah Njuki, Chief of Economic Empowerment at UN Women

## session 613

Room 520C  
Hybrid

Adaptation Choices

### Scaling up climate risk informed decision making for a climate resilient development

#### Context

IPCC AR6 has widened the scope for climate change adaptation to climate resilient development, picturing pathways of resilient development that combine climate risk reduction, climate mitigation and development goals and action. This increases the relevance and transformative character of climate change adaptation and the need for action. At the same time, requirements are increasing for risk-informed decision making to come up with effective adaptation strategies that maximize benefits and minimize trade-offs towards other goals (e.g. how can an action both reduce risks, increase biodiversity and improve equity?).

#### Need

As demand for action is rapidly increasing, the community of practice in risk informed decision making (RIDM) is expanding and the need for upscaling successful methods is growing. We aim to foster knowledge sharing (bridging), catalyse networking (bonding) and identify the common lessons and recommendations for practitioners, researchers and decision makers about analytical and socioeconomic tools and methods that can support the decision-making process (empower).

#### Anticipated outcomes

During a hybrid (live/online) collaborative session, we will share and discuss current practices and emerging topics to meet these new requirements in adaptation planning. We will produce a collaborative summary of the session (tangible outcome) as an opportunity for the participants to remain connected, and help clarify means to pursue dialogue on scaling up RIDM (intangible outcome).

### Organisers

Ad Jeuken, PhD (Deltares) Expert advisor Climate change adaptation

Sadie McEvoy, PhD (Deltares) Researcher Climate Resilient Development Pathways

Ursule Boyer-Villemare, Ph.D. - Team Leader, Climate risk and adaptation expertise, Ouranos & Associate professor in Disaster risk resilience, Universite du Quebec a Montreal

Clara Champalle, M.a. – Project manager in climate risk and resilience at Ouranos

### Partner organizations

US Army Corps of Engineers, Deltares, Ouranos, UQAM, Univ. of Cincinnati, Univ. of Stellenbosch, UNESCO, WSP Canada, CCG



session 764

Room 520D  
Hybrid

Equity & Justice

Squaring the debate: Does Locally Led Adaptation (LLA) help or hinder transformational adaptation?

At the Climate Adaptation Summit (CAS) in the Netherlands in 2021, organizations from across the world came together to endorse the Principles for Locally Led Adaptation (LLA). LLA is about local people and their communities having individual and collective agency over defining, prioritising, designing, monitoring and evaluating adaptation actions, and working with higher levels to implement and deliver adaptation solutions (Soanes et al. 2021). Since the CAS, the movement to bring LLA into the mainstream of climate action has gone from strength to strength with almost a 100 entities (including the Governments of Costa Rica, Nepal, UK, Ireland, Netherlands, Denmark, Sweden and USA) formally committing to bring these Principles to life. It is safe to say that LLA is well on its way to becoming a dominant discourse on adaptation policy and practice.

Even though LLA is finding support from across the world, it is important to examine the degree to which this approach to managing risk can deliver ‘transformational’ change in the context of a changing climate. This is described by the IPCC as adaptation that changes the fundamental attributes of a system in response to climate and its effects, (IPCC 2012). Those arguing for LLA would underline the fact that this approach to tackling the impacts of climate change is essentially about shifting agency to those on the frontlines of climate risk and therefore catalysing fundamental shifts in adaptation decision making and financing regimes. Others might contest that a sharp focus on the local scale may not deliver the fundamental shifts as this would necessary entail robust engagement with national and international processes (Adger et. Al. 2005). This group might also argue LLA does not offer much over the existing concept of ‘Community Based Adaptation’ (Kirby et al 2015). Representatives from particularly vulnerable groups to climate change, that are prioritised in theory by the LLA Principles (women, girls, people with disabilities, indigenous peoples, other marginalised ethnic groups) may argue for or against LLA being an approach that better supports climate justice compared to mainstream adaptation.

Therefore, this session seeks to unpack these views, and explore whether LLA can be a credible pathway to transformational adaptation. It seeks to do so by providing a forum for frank and honest debate.

Authors and Partner organizations

- Marek Soanes, Climate Justice Lead, CARE Australia
- Aditya Bahadur, Chair of the Research Strategy Team, IIED
- Cristina Rumbaitis del Rio, UN Foundation
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session 807

Room 520E  
Hybrid

Nature-based solutions

Scaling up ecosystem-based adaptation: Leveraging behavioral science for effective climate policy and action

Despite mounting evidence that Ecosystem-based Adaptation (EbA) can deliver important economic benefits on top of environmental and social gains, its application remains relatively limited globally. One of the challenges is that EbA requires significant behavioral changes, but our field has been slow to integrate insights from the behavioral sciences into our efforts to encourage such change. To effectively scale up EbA, we must leverage behavioral science and go beyond raising stakeholders’ awareness in the interventions that we deploy.

Presenting work at the intersection of applied behavioral sciences and EbA, this interactive knowledge exchange session will begin with a review of the typical choice scenarios and biases that people face when it comes to adaptation, before looking at real-world case studies of organizations tackling such choices through behaviorally-informed interventions. Starting with a look at Canada, where the Natural Infrastructure Learning Ecosystem (NILE) approach is innovatively used to shape interventions at various learning stages, ensuring better incorporation of EbA and NbS in problem-solving and initiating a shift in both professional and societal norms. Transitioning to coastal cities, we will examine terrestrial behavior-change efforts aimed at enhancing ecosystem resilience and promoting the ‘blue economy.’ Then, an intervention in Kenya will demonstrate how nudges tailored to local values, norms, and knowledge can help Kenyan farmers adapt their planting decisions to climate change realities. In Colombia, a climate-smart agriculture program will demonstrate how we can shift social norms and make “silent” behaviors more observable to encourage long-lasting behavior change. And in Fiji, an initiative aimed at incentivizing the adoption of vetiver grass for riverbank rehabilitation explores how behavioral insights can inform the design of effective policies.

Throughout these examples, speakers will discuss how behavioral science enhanced adaptation efforts, and will elaborate on attendees’ interests and concerns which will be collected in real-time throughout the session. Attendees will be asked to think through their own behavior-change challenges, identifying the case studies and behavioral science concepts most relevant to their work. Speakers will also highlight the challenges of relying on insights from one context when deploying interventions in another (for example, the global north vs the global south).

Overall, this session will serve as a showcase of the critical role behavioral science should play in scaling up climate adaptation efforts, and serve as an opportunity to better understand the various ways practitioners and policy-makers are approaching behavior change for EbA. Additionally, data gathered during the session will be collated and analyzed to identify implementers’ needs in the translation from academic behavioral insights to real-world application, and to identify better ways of bridging EbA-relevant policy-making and behavior-change.

Authors & Partner organizations

- Dr. Philipe Bujold, Rare, Center for Behavior & the Environment
- Julie Dekens, International Institute for Sustainable Development (IISD)
- Cortney Price, UN Food and Agriculture Organization (FAO)
- Stewart Sarkozy-Banoczy, Resilient Cities Network
- Liese Coulter, Royal Roads University





session 83

Room 520F  
Hybrid

Equity & Justice

Maximizing synergies across climate change adaptation, women’s empowerment, and nutrition objectives through goat value chains

This session proposes to examine the potential for goats and other small ruminants to enable small producers in low- and middle-income countries to adapt to climate change, facilitate women’s empowerment, and improve nutrition. Goats and other small ruminants are considered to be particularly “hardy” animals, and as such are considered to be climate resilient, especially to droughts. Goats are also used as a store of wealth and are more easily traded following shocks, which can increase household resilience to climate shocks and stressors. At the same time, goats constitute an important animal source food (ASF), as goat milk is generally consumed by young children in the household and goat meat is consumed, in some contexts, as part of religious ceremonies. Goat products could be leveraged further in the context of under- and malnutrition, particularly for young children and mothers. Doing so will require identifying opportunities to improve goat production and strengthening value chains for goats and goat products to support women’s empowerment, climate resilience and improved nutrition. This includes identifying and addressing production risks and tradeoffs, such as animal disease, declining availability of feed sources, as well as bottlenecks in the supply chain, such as market access and price fluctuations, many of which are associated with climate change.

Authors and Partner organizations

- Elizabeth Bryan, Senior Scientist, International Food Policy Research Institute (IFPRI)
- Juliet Kariuki, Postdoctoral Researcher, University of Hohenheim
- Dina Najjar, Senior Gender Scientist, International Center for Agricultural Research in the Dry Areas (ICARDA)
- Immaculate A. Omondi, Gender Research Economist, International Livestock Research Center (ILRI)

session 831

Room 519A

Adaptation Choices

Favoriser la résilience de la société en renforçant les liens entre le génie-conseil et les propriétaires/gestionnaires d’infrastructures

Les changements climatiques posent des risques pour la fiabilité des infrastructures et des services rendus, ainsi que pour la sécurité du public et pour l’économie. Bien que les infrastructures soient directement affectées par le climat, elles jouent également un rôle très important dans le renforcement de la résilience de la société face à ces impacts du climat. Tout d’abord, les nouvelles infrastructures doivent être planifiées, conçues, construites et exploitées pour tenir compte des changements climatiques qui peuvent survenir au cours de leur durée de vie utile. Ensuite, les infrastructures existantes doivent être adaptées ou gérées différemment dans un contexte de changements climatiques.

Afin que les infrastructures remplissent ce rôle, les professionnels en adaptation et les ingénieurs collaborent avec les différents acteurs afin que la conception et l’exploitation des infrastructures soient adaptées aux impacts des changements climatiques. Cette collaboration entre les divers acteurs facilite le dialogue, réduit les barrières de l’adaptation et éclaire les décisions d’adaptation.

Comme l’adaptation est relativement récente, il existe des barrières à surmonter et des innovations à mettre en œuvre. Parmi les obstacles à l’adaptation, notons :

- Le manque de ressources financières et techniques;
- Le manque de coordination entre les acteurs;
- Le manque de sensibilisation et de communication.

Il est également important de favoriser l’innovation à travers les solutions et leur mise en œuvre.

La session proposée se base sur deux thématiques principales définies dans l’appel de propositions :

- Gérer des risques multiples : plusieurs projets touchent de nombreux défis simultanés, et les changements climatiques représentent de nouveaux facteurs de stress.
- Faire des choix d’adaptation : plusieurs projets visent à promouvoir des choix d’adaptation qui valorisent la diversité et limitent la maladaptation.

Auteurs et organisations partenaires

- Organisatrice de session** : Liza Leclerc - Stantec - Montréal, Québec, Canada
- Président de session** : Frédéric Gauthier - Stantec - Montréal, Québec, Canada
- Présentateurs.trices ou invités.es (à définir)** :
  - Jean-Philippe Martin - Hydro-Québec - Montréal, Québec, Canada
  - Laurie Talluto - Aéroports de Montréal - Montréal, Québec, Canada
  - Brigitte Laliberté - Services publics et Approvisionnement Canada - Montréal, Québec, Canada

session 834

Room 518A

Limits to Adaptation

Partner Organizations:

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Boston, United States

International Centre for Climate  
Change and Development (ICCCAD),  
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Understanding the loss and damage  
finance facility: Opportunities and  
challenges ahead of COP28

Loss and Damage due to climate change is inevitable and will impact developing countries, small islands, and other vulnerable countries disproportionately (IPCC AR6 2021, Geest et al 2019, Roberts & Pelling 2018). It is estimated that the average annual cost of addressing loss and damage in developing countries will be \$435 billion USD by 2030 and \$1 trillion by 2050. However, only \$300 million has been pledged by high-income countries, and current financial and institutional arrangements by government or other institutions in developing countries are not sufficient to comprehensively address loss and damage that can support local needs and respond quickly (Huq & Joshi 2023, IPCC AR6 2021).

“Loss and Damage” has been a highly contentious issue in the climate negotiations since it was proposed by the Small Island Developing States (SIDS) in 1991. While the SIDS proposed to establish a dedicated fund for vulnerable countries with mandatory funding by developed countries, developed countries have sought instead to treat losses and damage as a sub-component of adaptation within the UNFCCC negotiations (Byrnes & Surminski 2019). However, the adoption of loss and damage as a separate article in the Paris Agreement in 2015 indicated that financing for loss and damage should be considered separate and additional to adaptation finance. More than three decades after its initiation, all countries finally agreed to establish a financial facility to address loss and damage in Egypt at COP27.

While this agreement is a significant achievement and has created an opportunity to establish the institutional arrangement of a dedicated fund directly supporting climate-impacted communities, how this facility will function is now an important question. It is yet to be decided if it will be a fund under the UNFCCC like the GCF or an autonomous multilateral fund but regardless, the institutional design is critical to ensure that the fund is both effective and beneficial for vulnerable countries. Many suggest having a mosaic of funding arrangements as the issue of loss and damage is a complex spider net and requires a variety of mechanisms (Warner 2023). Hence this discussion on institutional development should be inclusive of different perspectives and lessons learned from existing climate finance mechanisms that can guide the design of the new proposed fund.

Authors and Partner organizations

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session 963

Room 519B

Governance & Finance

Integrating adaptation into city  
budgeting - Lessons from C40 cities  
and Montreal

Cities are starting to incorporate science-based emissions reduction targets and yearly caps on emissions into their main budgeting process, but mainstreaming adaptation in city budgets is relatively new.

How are cities integrating adaptation into municipal budgets? How can cities integrate their adaptation planning into the major municipal policies that determine investment prioritization? How do cities identify what is and isn't adaptation spending within their budget? How can cities monitor the implementation of adaptation measures and projects?

C40 will be hosting a panel with cities leading on climate adaptation budgeting and governance mainstreaming to explore the above questions and different mainstreaming climate adaptation methodologies in city budgets and governance.

The session will be led by city practitioners who will present their experiences, lessons learned and challenges so that these approaches can be scaled up to more cities in the future.

The session will delve into the experience of the City of Montreal, which has developed the ‘climate test’ to assess city investment decisions and committed to allocating 10% to 15% of the Ten-Year Capital Expenditures Program budget to adapting to climate change by 2030.

This session will contribute to the “Inclusive adaptation governance and finance: how do we get there?” theme of Adaptation Futures by sharing with attendees’ potential methodologies for mainstreaming adaptation in city budgets and governance, providing practical knowledge and opportunities for collaboration and sharing experiences.

Authors and Partner organizations

Speaker(s):

- Barbara Barros, Senior Adaptation Finance Manager, C40 Cities
- Aline Xavier, Planning Strategies Coordinator of the SUBPAR/ SMFP Planning Office, City of Rio de Janeiro
- Lloyd Lee, Senior Sustainability Specialist (Climate Accountability), City of Vancouver
- Nicolas Dedovic, Acting Head of Division, Office of Ecological Transition and Resilience, City of Montreal

session 990

Responsible Artificial Intelligence for  
Resilience in a Changing World

Room 518B

TBC

Adaptation Choices



session 986

Room 522

Multiple Risks



## Facilitating an adaptation mindset using lessons from the transportation and buildings sectors

Adaptation is a journey involving many steps and paths. An early step is understanding how the climate is changing. As awareness grows that the past is no longer a reliable predictor of the future, professionals from diverse groups, sectors and backgrounds are being called on to grapple with a changing climate. Using the lens of transportation and buildings, this session will explore how climate services providers and adaptation practitioners can couple climate data with facilitation skills to enable users to take adaptation actions.

This session will describe applied research processes used to increase relevance and user-friendliness of adaptation tools targeted at specific sectors. The sector-tailored content on ClimateData.ca, a national climate data portal, will be used as examples as they were developed through collaboration between regional, national and sector focused organizations.

The session will also include knowledge co-production elements to engage participants and draw upon expertise in the room. The session will be designed to walk through and replicate some common characteristics of the adaptation learning journey, draw out common roadblocks, and brainstorm creative solutions that can help to integrate climate data into adaptation practice.

### Authors and Partner organizations

**Session Chairs:**

Trevor Murdock, Canadian Center for Climate Services  
Kari Tyler, Pacific Climate Impacts Consortium



session 628

Room 525

Equity & Justice

Just transitions to water resilience in African cities

This session explores building urban water resilience in African cities, looking at adaptation priorities and actions from a justice and equity perspective. Many fast-growing African cities are facing persistent water stress, severely aggravated during drought periods. Infrastructure maintenance and expansion, diversification of water sources, ensuring equitable water access, rehabilitating and protecting rivers, catchments and aquifers all require transformations in how cities work, in a social, economic and material sense.

The session draws on experiences in a range of African cities. It takes the format of an interactive panel discussion, inviting participants into a conversation guided by three questions:

- What are the most urgent priorities for strengthening urban water resilience in African cities?
- What actions and coalitions are needed to accelerate the implementation of priorities?
- How can just adaptation be undertaken that ensures the needs of the most vulnerable are actively considered and acted upon, alongside economic and environmental needs?

Authors and Partner organizations

Session facilitators and panelists:

- Gina Ziervogel - University of Cape Town, South Africa (Moderator)
- Anna Taylor - University of Cape Town, South Africa (Panelist)
- Liteboho Makhele - South African Cities Network, Johannesburg (Panelist)
- Leila Harris, UBC, Canada (Panelist)

session 38

Room 524A  
Collaborative

Equity & Justice

Connecting the dots across regional resilience priorities: What have we learnt and done in 2023 so far and how are we gearing up to COP28?

Since COP26, adaptation and resilience have become a visible and prominent theme in a way not seen before. COP27, in turn, demonstrated the unequivocal power of radical, long-term collaboration across civil society, state, and non-state actors that led to the breakthrough decision on Loss and Damage. Building on this momentum, the road to COP28 must continue to match the highest ambition with enabling frameworks to ensure implementation moves towards regulation that centres justice and equity.

This event is envisaged to be part of the Resilience Hub ecosystem in 2023, building on the workshops and dialogues with local constituents via Regional Resilience Hubs. Regional Resilience Hubs have, to date, played a crucial role of ensuring the voices and perspectives of the most vulnerable and climate affected are amplified and increasingly drive the global resilience agenda. In 2022, each of the regional hubs was led by a regional partner who facilitated a series of outreach and consultations that elicited great interest among stakeholders across sectors and geographies to share and, more importantly, to learn how to advocate locally-derived priorities and solutions at the global level (see Table 1 for snapshot of engagement).

Building on 2022 stakeholder engagement, 2023 efforts are under way to ensure that the Regional Resilience Hubs provide more meaningful spaces to engage and offer opportunities for capacity and capability building (of which this event is one). Noting also the importance of regional engagement that is highlighted by Adaptation Futures hosts via an open call, we are keen to explore a potential for deeper collaboration with AF regional hubs throughout 2023.

This session will present some of the emerging red threads from the Regional Hubs, but will also provide a space for cross-regional experiential learning. It will also retain space for High Level Champions and COP Presidency to respond to how they will carry these messages forward into COP28 and ensure that the drumbeat of implementation does not remain just that.

Authors and Partner organizations

The event will be co-created with the regional resilience leads (CDKK/SSN; SDI; AVI-NA, ICCCAD, Global Evergreening Alliance) and GRP, and will draw from the regional engagements that will take place throughout 2023. This could also include Adaptation Futures Regional Hub leads.





session 455

Room 524B  
Collaborative

Adaptation Choices

Measuring the resilience of communities to climate impacts and using this knowledge to adapt

Communities around the world, in the developing world as well as in the global north are on the frontlines of the climate emergency. Communities, whether they are neighbourhoods in urban areas or villages in rural settings, are where the impacts are felt the most, with their livelihoods and their wellbeing threatened by rising sea levels, increased flood risk, heat stress, drought, etc. These same communities are facing existing and new and additional risks in addition to climate change, such a poor development choices, poor governance, social change, and population flux. How can communities be empowered to contribute to their development in a way that enables them to mitigate negative impacts and thrive in spite of increasing risk?

Climate smart risk informed development has been gaining traction as a practical approach to respond to change impacts and address adaptation deficits. But informed decision making is an essential ingredient for effective climate smart risk informed development. Climate smart risk informed development may comprise incremental (e.g., raising dikes), fundamental (floodplains instead of dikes) or transformative (voluntary migration from floodplains, shifts in livelihoods), but all these interventions need to be integrated into a coherent approach with community and individual actions coordinated with the actions (from their plans, capacities and budgets) of local governments, key sectors and national development.

The session brings together science and practice in order to inform policy as well as implementation. The session outlines the basic concept and rationale of climate smart risk informed development, it then presents our experiences of using a standardised community engagement tool to collect data to inform their development choices, then presents recent sectorial and place-based applications, such as on early warning, flood risk management, risk financing and how they have contributed or otherwise to their resilience, using the most widely applied a standardized disaster resilience measurement tool in the world. This session will include practical case study experiences from the UK, Nepal, Bangladesh, Cambodia, Philippines, Peru and US. It will explore the practical and conceptual opportunities and challenges of measuring community disaster resilience for both a single hazard (flood) and within a multi-hazard framework.

Authors and Partner organizations

Teresa Deubelli-Hwang, Jung Hee Hyun, Adriana Keating, Reinhard Mechler, Naomi Rubenstein, Robert Sakic-Trogrlic – International Institute of Applied Systems and Analysis (IIASA)

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Colin McQuistan, Dharam Uprety, Practical Action

Manuel von der Muehlen, Daniela Donia – Plan International

Sarah Knight, Mercy Corps

session 702

Room 524C  
Collaborative

Adaptation Choices

Co-producing adaptation strategies for agriculture supported by interdisciplinary system modeling and empirical studies

The proposed session will address the challenge that development of effective agricultural adaptation strategies requires close collaboration between decision and policy makers and scientists in the co-production of interdisciplinary science that is complex, evolving, and requires methodological innovations. The complexity of the research can raise barriers to stakeholder engagement. The research involves ex ante assessments of adaptations through integrated models of socio-environmental systems including climate, crops, livestock, economics, and human decisions. Ex post evaluation of outcomes from implemented adaptations can inform both adaptation design and integrated model improvement.

In order for the science to produce adaptation guidance that is relevant, useable, trusted, and tailored to the contexts in which it will be applied, decision and policy makers should participate in co-producing the science more fully than is common in practice. The collaboration should strive for end-to-end engagement of decision and policy makers in identifying research questions, co-designing and planning research, guiding the execution of research, and interpreting and applying results.

Participants

Chair and co-chairs:

Malgosia Madajewicz, The Climate School, Columbia University, USA

Sabine Homann-Kee Tui, International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Zambia

Dilys MacCarthy, University of Ghana, Ghana

Laure Tall, Initiative Prospective Agricole et Rurale (IPAR), Senegal

Roberto Valdivia, Oregon State University, USA

Alex Ruane, NASA Goddard Institute for Space Studies, USA



## session 292

Room 520A  
LAC Pavilion  
Hybrid

Indigenous Knowledge

### In Situ conservation of agro-biodiversity to ensure adaptive capacity - Building on Indigenous and local knowledge from Andean mountain ecosystems

The Andes are one of the centers of origin of species that constitute the food base of humanity. However, climate change and extreme weather events are increasing the vulnerability of smallholder family farming. Adaptation strategies such as out-migration further erode ancestral practices and knowledge, which can be the basis for conservation of agro-biodiversity and future adaptive capacities.

Through showcasing three case studies from Andean countries of Bolivia, Ecuador, and Peru, the Andes Resilientes project will share innovative and participatory practices for in situ conservation of agrobiodiversity, which also help family farmers adapt to climate change. These practices combine indigenous and ancestral knowledge for conserving ecosystems and their services, including water, as well as the recovery and sustainable management of cultivated and wild native species and varieties, that significantly contribute to reducing vulnerability to climate change and adaptive capacities.

We will hear from women in the Cochabamba region of Bolivia who are recovering native potato seeds as agroecological practices for improved nutrition and crop productivity under changing growing conditions. From Ecuador, farmers associations will share the “tomate de arbol” experience that has allowed them to understand the benefits of its conservation and provide better access to markets. From 6 agrobiodiversity zones in Peru, CSOs, market actors, government functionaries and scientists will talk about their collaboration to conserve native species, combining their resources and competences.

### Authors and Partner organizations

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Victor Hugo Ortega, Analyst at Dirección de Articulación Multisectorial de Agricultura Familiar Campesina del Ministerio de Agricultura y Ganadería de Ecuador (Ecuador)

**Moderator:** Mauricio Luna, Policy Advisor in Resilience Program at IISD

## session 634

Room 520B  
Africa Pavilion  
Hybrid

Governance & Finance

### Mobilising climate-smart private finance for East African food security

**Thematic focus: Food systems adaptation**

Climate-smart finance, using the best available science-based climate assessments, combined with selected climate-smart practices and technologies can help improve food security and farmer resilience to climate change. The inclusion of women and youth is a particular focus.

**Context**

Climate change is increasingly threatening agri-food systems with rising temperatures, unpredictable rainfall patterns, and increasing extremities such as floods and prolonged droughts. Such extremes in addition to external shocks such as the war in Ukraine, are affecting global markets and increasing prices for the most vulnerable members of society. Women and minorities are disproportionately affected .

The cost of inaction is as much as 20-fold the investment costs of adapting agricultural practices now. New approaches are needed to rapidly integrate climate adaptation, mitigation and embed a culture of long-term disaster risk reduction practices in food crop production and supply systems.

More innovative and climate-smart finance is needed to leverage investment in interventions that promote market-driven adoption and scaling of inclusive, climate-smart business to enhance risk reduction and climate resilience along agricultural value chains.

session 304

Room 520C  
Hybrid

Multiple Risks

Addressing the challenges of climate change, food insecurity, sustainable health and wellbeing - Time to innovate for progress on the Global Goal of Adaptation

As the UN Secretary-General has stated: “ global challenges are more and more integrated, and the responses are more and more fragmented ... this is a recipe for disaster.” To effectively adapt to a changing climate, there is need to bring together issues and have integrated global responses. The Sustainable Development Goals - Food (SDG 2), Health (3), Life below Water (14) , Life on Land (15) and Climate Action (13) - need to be addressed in an integrated way, noting that Poverty (1), Gender Equity (5), Water (6), Consumption (12), Innovation (9) and Sustainable Communities (11) are also critically connected.

The Session specifically addresses Theme 2: Dealing with multiple risks: Compound, cascading, cross-border climate change risks; with links to: 1: Learning from Indigenous and local peoples’ knowledges and expertise in adaptation; 3: Making adaptation choices: managing trade-offs and seeking effective adaptation; and 6: The power of nature for climate action. It directly addresses the SDGs: Health (3), Food 2) and Climate Action (13), linking to sources of food and implications for health (SDGs 14, 15, 12, 9) – with the objective of Sustainable Cities and Communities (SDG 11).

Authors and Partner organizations

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Gordon McBean is member, Future Earth Governing Council, Fellow IAFoST, and Chair, Canadian Association of Professional in Climate Change and was ADM, EC and President, Int’l Council for Science. Harper is Associate Professor, School of Public Health, co-leads the Indigenous Health Adaptation to Climate Change (IHACC) program and was a lead author for IPCC 2022 Assessment and the Health Canada’s report - Health of Canadians in a Changing Climate.

Dr Anna Gunz is a MD at Children’s Hospital, London Health Sciences Center, Associate Professor, School of Medicine & Dentistry, Western University and has established a Children’s Environmental Health Clinic.

Isaac Luginaah is co-director of Western’s Centre for Climate Change, Sustainable Livelihoods and Health and is on Science Committee for international Urban Health and Wellbeing Programme.

session 211

Room 520D  
Hybrid

Adaptation Choices

Do we need a Global Goal on Adaptation?

The Paris Agreement (Article 7) established a Global Goal on Adaptation (GGA) of “enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change” while contributing to sustainable development and meeting the temperature goal. Many challenges and questions emerge from the GGA framing and the Global Stocktake mechanism established to review progress towards it. These questions refer to the collective willingness to move towards a more precise definition of the GGA, assessment methods and means, sources of information and aggregation, temporal scales to consider, governance processes of monitoring and evaluation, and linkages with global and local justice and equity (1,2,3). The goal of this session is to facilitate the co-production of a nuanced narrative on the benefits and dangers, and - opportunities and trade-offs (and for whom), of the Global Goal on Adaptation framing.

Through a participatory debate, the session aims to generate a transparent collective discourse around the GGA that sets the scene for further constructive discussions to advance science, policy and practice on the effective, just and sustainable measurement/assessment of adaptation progress. The question “Do we need a GGA?” is used here to provoke constructive discussions about how, when, and for whom the GGA will be effective.

This hybrid session will be organised in four parts.

**Part 1.** Introduction (30 min). Co-conveners will welcome participants to the session and in a panel format will briefly explain the session and provide the context for the debate on the GGA.

**Part 2.** Preparation of the debate (40 min) - Participants are organised into two groups (each group led by one of the co-conveners) and work on arguments for the different sides of the main question set by this house, for which a set of guiding questions will be used. A virtual discussion will also happen in parallel with online participants.

**Part 3.** Debate (40 min) - In a facilitated debate, each group has the opportunity to argue on each one of the guiding questions but also an opportunity to respond to the other group.

**Part 4.** Wrap-up and future steps (10 min).

Authors and Partner organizations

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room 520E F

Side event

## session 107

Room 519A

Adaptation Choices

### Adaptation in practice: How local governments are mainstreaming climate resilience

This panel will provide an international look at municipal responses to the impacts of climate change.

In the 2022 National Adaptation Strategy, the Government of Canada identified the Federation of Canadian Municipalities (FCM) as a key delivery partner in its shared path to a more climate resilient Canada. Support provided by FCM's Green Municipal Fund will ensure that all municipalities, regardless of size, location and/or state of readiness, are able to access climate adaptation program support in a way that meets their needs in advancing their capacity and readiness to access complementary federal programs.

FCM will showcase its Theory of Change for National Adaptation Strategy implementation funding detailing how the organization proposes to support more than 1,400 community-based adaptation projects through a combination of grants, partnerships, capacity development opportunities and the infusion of private finance. Reinforcing this content will be examples from across Canada and internationally of how local governments are mainstreaming climate resilience considerations into municipal decision-making, including results from municipal knowledge exchange between local governments in Canada and the Global South will demonstrate the capacity development potential of direct peer-to-peer dialogue and process sharing, as well as highlighting climate adaptation mainstreaming opportunities undertaken by the cities of Montreal and Windsor.

### Authors and Partner organizations

Dustin Carey, Lead, Adaptation, Federation of Canadian Municipalities

Karina Richters, Supervisor, Environmental Sustainability and Climate Change, City of Windsor

Nicolas Dedovic, City of Montreal, Bureau of Ecological Transition and Resilience (subject to change)

Pascal Lavoie, Director, International and Governance and Social Inclusion Programs, Federation of Canadian Municipalities

Amy Pieterse, Senior Researcher, Council for Scientific and Industrial Research

Dr. Robin Leichenko, Professor of Geography and Dean of Social and Behavioral Sciences, Rutgers University

Dr. William Solecki, Professor, Department of Geography and Environmental Science, Hunter College-City University of New York.

## session 976

Room 518A

Governance & Finance

### Migration and climate change: understanding decisions and evaluating outcomes

Globally, populations are moving in response to a broad range of drivers. Such movements occur over a continuum ranging from temporary moves to more permanent relocations. Though the impacts of climate change are now identified as one of the key drivers of migration and displacement, knowledge on the interaction between migration decisions and outcomes remain uneven. Through a combination of empirical and conceptual studies, this session explores how human migration at different spatial and social scales is deployed as adaptation strategy to environmental stressors.

### Participants

**Chair:** Ricardo Safra do Campos (University of Exeter).

session 617

Room 519B

Adaptation Choices

## How to incentivise financing for a resilient recovery

While efforts to adapt to climate change should occur at all times, and its impact is much greater when undertake ex-ante, there is an opportunity post-disaster to consider future risk with increased political focus and some funding. There is a window of opportunity to invest in resilience, to build back better, to help avert and minimize the damage of future events.

Ensuring a Resilient Recovery requires reconstructing and restoring communities, homes, businesses, and infrastructure after a disaster in a way that reduces risk, such that they are better able to withstand future events. It is a holistic approach that goes beyond simply restoring the pre-disaster state, but also focuses on creating more resilient communities that can withstand future shocks and stresses and have a higher overall quality of life for residents.

This session will explore the evidence from a new report, which draws together the evidence from three case studies where a post-event analysis (PERC – Post Event Review Capability - conducted by the Zurich Flood Resilience Alliance) was undertaken after floods in Mexico, Senegal, and Nepal. The session will review whether and how authorities in those countries were able to build back better, what were the incentives and challenges to this, whether international finance was made available to support that, and how financial incentives can be created to encourage investment in resilient infrastructure.

### Authors and Partner organizations

Simon Mercer, Mercy Corps, UK  
Karen MacClune, ISET International, USA  
Dharam Uprety, Practical Action, Nepal

session 329

Room 518B

Indigenous Knowledge

## Adaptation for a climate resilient North: Amplifying local voices in pursuit of northern-based solutions

The session will bring together Northerners with lived experience of climate change impacts in Canada's Arctic and Sub-arctic regions. Drawing from their perspectives as leaders and residents of the North, presenters will share knowledge and experience of climate change adaptation and resilience in their communities. This panel will feature Indigenous Elders and youth voices from across the North.

The Canadian Arctic is exposed to some of the fastest rates of temperature increase on the globe. Entire landscapes are being transformed in response to impacts such as permafrost thaw and sea ice loss. These changes have cascading links throughout human and natural systems and are creating significant challenges for vulnerable populations in each.

Presenters in this session will explore Northern perspectives of the interconnectedness of human and natural systems, resilience, self-sufficiency, cultural revitalization and collaboration as topics driving adaptation action across the diverse landscapes of the North.

### Authors and Partner organizations

**Chair, intro and closings:**  
Alison Fung, intro (and registered chair)  
Sara Holzman, facilitator

**Panelists:**  
Allison Perrin, Yukon University  
Julia Gyapay, NWT Youth Council  
Tim Heron, NWT Climate Council  
Solomon Awa, NWT Association of Communities



## session 16

Room 518C

Nature-based solutions

### Making nature count for adaptation - Global, national and local action to value services provided by nature

It is widely recognised that nature-based solutions have a key role to play in climate adaptation. Historically, climate adaptation approaches have heavily relied on “grey” infrastructure solutions to either control natural processes, or to harden development, to reduce risk of damage and danger to public safety. In some cases, these techniques have resulted in negative impacts on the function of ecosystems. In contrast, nature-based solutions can help manage climate risks in a way that provides benefits for both people and nature. Examples include protecting and restoring wetlands to manage downstream flooding or increasing urban forest cover to reduce extreme heat in cities. The role of nature in climate adaptation is underscored by Target 11 of the recently adopted Kunming-Montreal Global Biodiversity Framework, which calls for Parties to use nature-based solutions to restore, maintain and enhance nature’s contributions to people, including protection from natural hazards.

As parties work to implement the Global Biodiversity Framework, there is significant opportunity to accelerate the use of nature-based solutions to reduce the impact of climate change on people, while achieving multiple benefits. Identifying and valuing these multiple benefits will be important to support decision-making to make this opportunity a reality, at global, national and local scales.

A key challenge is that, while nature is considered by many to be priceless, nature’s contributions to people are largely absent from the financial balance sheet of a world driven by produced capital and GDP. This panel session brings together leaders working at global, national and local scales to highlight initiatives and tools that are already been applied to make the value of nature for climate adaptation (and other services) transparent. Specific consideration will be given to how Indigenous ways of knowing and values can be used to accelerate this process. Canada will also be used as a case study to discussed the inter-relationship between organisation and ecosystem scales.

### Authors and Partner organizations

#### Organisers (and panelists)

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Dr. Ursule Boyer-Villemaire, Ph.D. - Team Leader, Socioeconomic Analysis for Adaptation, Ouranos and Associate Professor in Disaster Risk and Resilience, Universite du Québec a Montreal

#### Panelists

Shawn Blankinship, MBA, CPA, CA - First Nations Financial Management Board

Bailey Church, CPA, CA, CIA – Lead, National Public Sector Accounting Advisory, KPMG Canada

Liesbeth Casier, LLB., NBI Global Resource Centre, International Institute for Sustainable Development (IISD)

## session 309

Room 523

Adaptation Choices

### Flood mitigation and adaptation

Flooding, caused by heavy rainfall, storm surges, or rapid snowmelt, is one of the natural hazards which is directly influenced by climate change. As predicted by IPCC’s assessment reports, climate change-induced extreme flooding events are becoming common phenomena around the world in recent years. Millions of people and their livelihoods, infrastructures, economy, as well as natural ecosystems are affected by severe flooding every year in both developing and developed countries. Particularly, settlements in coastal areas and in large river deltas are vulnerable to high flood risks. To prevent damage from flooding, traditional flood adaptation measures (e.g., levees, flood walls) are implemented in many places; however, some of them are not providing adequate protection because they are either very old or not built to withstand climate change-induced extreme flooding events. Even some flood mitigation measures implemented decades ago have now turned into examples of ‘maladaptation’ practices due to poor maintenance and lack of upgradation. Therefore, adaptation to flooding through building flood-resilient infrastructures and community remains a key priority in all flood-prone countries. Especially, urban infrastructures like transportation, houses, telecommunication, water and power supply, and wastewater drainage systems, which require huge investment and time for implementation, need to be built with innovative designs and materials considering flooding scenarios under climate change. Transformative and resilient adaptation measures combining grey infrastructures and nature-based solutions are necessary to achieve effective long-term sustainable flood risk management.

### Authors and Partner organizations

#### Chair:

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Katherine Allaby, University of Waterloo, allaby.katherine@gmail.com

## session 319

Room 525

Equity & Justice



## Driving equitable systems change in a world of urgent transitions: Effective knowledge brokering practices in the global South

Climate change is causing widespread negative impacts. Given that the window of opportunity to support appropriate adaptation at the scales needed is rapidly closing, the IPCC has called for systems-wide transitions, resilience building and an urgent all-of-society response. Practitioners and researchers working to support adaptation over the past two decades have learned that treating this imperative for action as a technical problem that can be solved through more accurate information alone is a fallacy. Addressing climate change is, at its core, a socio-economic, rights-based and governance issue in which systemic barriers such as power asymmetries, conflicting knowledge systems and incentive structures, as well as institutional fragmentation are crucial impediments to action.

If society is to respond to the urgent adaptation imperative, researchers and practitioners need to become much more effective knowledge brokers. Knowledge brokers act as the link between producers and users of knowledge. The range of activities that knowledge brokers are involved in occurs along a spectrum from creating information flows to seeking to bring about systemic change. A new generation of climate knowledge brokers will operate in the context of multiple transitions and needs to be able to drive systemic change while navigating a complex environment encompassing a range of sectors and stakeholders with different values and priorities, at multiple levels.

This session will share cutting edge lessons about effective approaches to climate knowledge brokering in the global South. It will share lessons from practitioners and researchers alike who have taken on the challenge of driving systemic change. Methods for generating equitable climate action will be shared from such diverse contexts as Nepal, South Africa and Argentina, using case studies across urban and rural systems. The presentations hold a common thread in their focus on disrupting established power relations, and take on the challenge of elevating under-represented forms of knowledge, women’s leadership and youth voices. In so doing, the speakers will traverse, and provide methodological insight into three core thematic priorities for the conference, namely: adaptation finance; ecosystem-based adaptation and the fight for gender equality and social inclusion in climate action.

### Authors and Partner organizations

Georgina Kemp, IDRC  
Lucia Scodanibbio, SouthSouthNorth/CDKN

session 723

Room 524A  
Collaborative

Equity & Justice

## Fostering equity and justice in adaptation and adaptation interventions: Perspectives and questions from early-career African women scientists

Addressing equity and justice in adaptation efforts in Africa requires more holistic science leaders that are able to effectively navigate complexity and uncertainty and collaborate with diverse others. Actors from across scientific and professional sectors struggle to engage in science-society spheres without dedicated training on how to thrive in these spaces. With this session, a small group of early-career African women scientists who have been competitively selected as START’s Sheila N. Onzere Memorial Leadership Fellows in 2023 will convene a virtual or hybrid knowledge café to co-interrogate questions of decision-making and inclusion in adaptation interventions alongside participants.

As part of their Fellows Program, the scientists will be journeying through a series of capacity-strengthening offerings on foundations for successful collaborations, systems thinking reflexivity and empathy, learning and growing in the face of discomfort, and power, gender, and intersectionality. The knowledge café will offer a space for them to share concrete examples from their own work on adaptation as African women scientists and to more deeply explore key questions of equity and justice in adaptation and adaptation interventions that emerge during their fellows program with session participants. These questions may include a spotlight on inclusivity and diversity in collaborative adaptation processes, the need for greater transdisciplinary training in technical sciences linked with adaptation issues, nurturing more equitable and meaningful collaboration for adaptation, and how to deal with injustice in adaptation processes. During the session, participants will be joined in small groups with one or more of the START fellows as table hosts for at least two rounds of questions and discussion, after which the table hosts will deliver key messages back to the group.

### Authors and Partner organizations

Dr. Mariama Camara, START International (Senegal)- Session Chair

Dr. Mary Thompson- Hall, START International (USA)- Session Organizer

Ms. Karen Goldberg, Reos Partners (South Africa) – Session Organizer

Edward R. Carr, Humanitarian Response and Development Lab (HURDL): George Perkins Marsh Institute, Clark University, Worcester, Massachusetts, (USA)- Session Organizer

session 848

Room 524B  
Collaborative

Equity & Justice

**This will be a Knowledge Exchange session based on a two-way exchange among the session organizers and participants.**

## Improving assessment practices to incorporate equitable climate resilience amid increasing complex events

Climate impacts are increasingly widespread, cascading through complex socio-economic systems, resulting in more severe impacts and risks that threaten efforts at poverty reduction and entrench long-standing injustices within communities. Despite recognition of the need to address distributive, structural, and procedural justice in climate responses that aim to moderate the impacts and risks (i.e., adaptation), as well as activities that build resilience, little replicable guidance exists that is grounded in empirical evidence of what has and has not worked and why. Both replicability and contextual considerations are critical in scaling up resilience while ensuring effective, equitable planning and implementation moving forward.

We strive to address the critical gap of existing analytics and their application to identifying and accounting for systemic vulnerabilities and risk perception and preferences of those affected by climate change and interventions, especially in monitoring and evaluation activities. At the nexus of research and practice, there is more evidence on what approaches have or have not worked than the published scholarly literature might suggest. Yet, this knowledge and data has not been systematically captured and integrated in iterative learning, guidance and implementation. Further, transparency around failures may cut against cultures, politics, perceived stakeholder interests, etc. Additionally, we hope to explore the fact that adaptation planning is multi-scalar in nature and requires funding/budget, which often drives the priority and ‘who is at the table’ towards solutions that may not be locally equitable or just. We believe there is enormous value in tapping into and capturing the practitioner and community knowledge around such areas for improvement, requiring the creation of inclusive, “safe” spaces where open conversations about outcomes and lessons learned can take place and be shared.

### Authors and Partner organizations

**Confirmed:**

Elisabeth Gilmore, Carleton University

Debora Ley, Economic Commission for Latin America and the Caribbean

Jia Li, World Bank

Jennifer Helgeson, National Institute of Standards and Technology, USA



session 642

Room 524C  
Collaborative

Adaptation Choices

Global goal, local action: can  
measurment make adaptation more  
effective?

This session will bring together practitioners, policymakers and researchers to co-produce new knowledge on how the process of measuring adaptation and the data generated can make adaptation more effective. The global goal on adaptation and the global stocktake within the UNFCCC have focused global attention on measuring the outcomes of adaptation and this will continue as a global goal framework is agreed at COP 28. Climate funds, national governments, and local communities all have experience setting up monitoring and evaluation systems for adaptation but beyond the reported results, there is little understanding of how these experiences have led to better outcomes for vulnerable groups over time, and what types of metrics and processes generate the most useful and usable lessons (IPCC, 2022; AC, 2022). In some cases measurement may lead to perverse incentives or distract from the underlying causes of vulnerability. The session will start as a facilitated “fishbowl conversation” where participants are invited to come up to make their inputs, engage in discussion and then sit back down again. The session will focus on three dimensions where measurement may lead to change: policies and programmes, incentives and behaviour, and the framing of adaptation. For each dimension an invited researcher will give a three-minute provocation about how the theory behind how this dimension may lead to change to frame the conversation. Participants will then be invited to come up into a “fishbowl” to add their contributions and examples. They leave the fishbowl when they have made their points but may return to follow up and deepen analysis, co-producing new knowledge. After the initial fishbowl to generate a range of ideas, participants will move into a worldcafe discussion to explore one of the three dimensions in more depth. The focus will be on using the research input to provoke personal reflections and experiences from practitioners and policymakers and through this exchange to create new understandings of the potential impacts – both positive and negative of measurement processes. Facilitators will draw out the intersectional implications of the discussed changes to ensure gender, equity and social inclusion dimensions are considered. All inputs and examples will be documented and used to make a submission to Glasgow Sharm el-Sheikh work programme. All participants who wish can be co-authors of this submission. The outcomes will be: an improved understanding in the adaptation community about the potential effects of recent measurement efforts, identifying case studies and examples for further research, and a briefing for COP 28 or the final workshop of the Glasgow Sharm el-Sheikh work programme on the findings from the session.

Authors and Partner organizations

**Lead:**  
Susannah Fisher, University College London

**Partners:**  
Joanes Atela, African Research and Impact Network  
Dharam Uprety, Practical Action Nepal

session 332

Room 520A  
LAC Pavilion  
Hybrid

Nature-based solutions

Accelerating and scaling nature  
as a solution fro equitable climate  
adaptation

Adapting to climate change can be very different depending on which region of the world you are in, which group you belong to, your economic reach and your gender. This puts the equity approach in a central position when we address climate adaptation.

However, these people focused issues need to be in balance with natural systems to ensure effective and long-lasting solutions. Nature-based Solutions (NbS) can do this by performing “at the interface of the socioeconomic system and the ecosystem to reduce the vulnerability of the social–ecological system as a whole” (Seddon et al, 2020).

This Roundtable Discussion will explore how equity and justice considerations are embedded in some NbS and why they are missing in others. We will investigate the benefits and challenges of ensuring equitable nature-based approaches to attain resilience and adaptation outcomes.

Our aim is to show the diversity of perspectives and of Nature-based Solutions applied in different contexts to highlight how principles of equity and justice are an important pillar to help scale and accelerate nature as a solution for climate adaptation and resilience. To do this, we will first frame the topic and then engage in discussions with a diverse panel of experts who will bring their learnings from the implementation of people centered NbS projects.

Authors & Partner organizations

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Fernanda Kalena - Climate Adaptation Network Manager  
Eric Roberts - Climate Risk and Resilience Senior Manager  
Natainia Lummen – Snr NbS and Community Resilience Specialist

**Partner Organizations**  
Rosario Carmona - PhD in Anthropology. Postdoctoral researcher, University of Bonn  
Paulina Aldunce – University of Chile

session 554

Room 520B  
Africa Pavilion  
Hybrid

Adaptation Choices

How gender-responsive climate adaptation solutions can accelerate resilient food systems in Africa

Authors and Partner organizations

Dr. Susan Kaaria, Director, African Women in Agricultural Research and Development (AWARD), Kenya  
Dr. Meseret Tesema, Associate Professor, Plant Physiology, Hawassa University, Ethiopia  
Ms Michelle du Toit, Director, Africa and Regional Engagement, Climate and Development Knowledge Network (CDKN), South Africa  
Ms Marie-Therese Daba Sene, PhD Candidate, University of Gaston Berger, Senegal  
Ms Dorine Odongo, Senior Manager, Communications AWARD, Kenya

session 147

Room 520C  
Hybrid

Indigenous Knowledge

Optimizing adaptation for Island Peoples: The role of traditional and local knowledges

The attainment of the sustainable development goals (SDGs) in small islands and coastal areas is threatened by environmental adversity, especially climate-change. In response, a growing body of literature has pondered the linkages between climate-change adaptation, disaster risk-reduction, and indigenous and local knowledge (Nunn and Kumar, 2019; Petzold et al., 2020; Walshe and Nunn, 2012). Climate-change adaptation and traditional and local knowledge (TLK) may converge to foster structural transformations (Makondo, C. C., & Thomas, 2018). Fostering adaptation by actively involving existing traditional and local knowledge may not only provide more suitable context specific solutions, but also potentially extend existing established theories and inform policy making in contexts often left out by mainstream studies. In this regard, there remains a question of how specific regions/communities in both high and low-income countries will be affected by climate-change. This is especially true for small islands. Research in this field is gaining momentum (Kelman, 2014, Moncada et al., 2021), but lack of data and research capacity remains a major challenge, particularly (and paradoxically) for the most impoverished/vulnerable communities in small island developing states (SIDS) (Lewis, 1999; Foley et al., 2022). What the proposed policy-solutions mean for specific island and coastal-communities is still largely unknown (Nunn et-al., 2007; Wolf et al., 2022); how these solutions might be optimally designed and implemented is often inadequately understood, especially in rural communities where traditional methods of coping are more highly valued than 'western' or global ones. Available data is frequently interpolated from large spatial or temporal scales. In turn, failure to identify specific local shocks may lead to adaptation activities that are poorly targeted, inadequate, or even maladaptive (Bambrick, Hales 2013). This too delays the comprehensive understanding of how specific development interventions might enhance adaptation, and how funds can be fairly and equitably distributed (Remling, Persson, 2015). The proposed session focuses on cutting-edge knowledge and experience on indigenous and local knowledge, especially stemming from small islands and coastal areas, with the intention of addressing knowledge gaps, foster transboundary perspectives for adaptation, and discuss realistic solutions to identify concrete connections with existing development goals.

Authors and Partner organizations

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Laurie Brinklow, University of Prince Edward Island, Canada



## session 535

Room 520D  
Hybrid

Equity & Justice

### Establishing a globally-relevant just adaptation network

In the past decade, attention has largely focused on some of the systemic drivers of impacts from climate change that are not readily addressed by more information about the conventional factors – exposure, vulnerability and adaptive capacity, seen through a hazards lens. In particular, intersectional structural inequities and injustices have come to be understood as an intrinsic part of societal vulnerabilities, constraining the ability of many social actors to respond to climatic hazards and a multitude of other disturbances and shocks. We know that transformational change in levels of adaptation and societal resilience cannot be achieved without tackling these structural causes that continue to shape adaptation barriers and limits, such as colonialism and patriarchy. Hence, debates on just adaptation have become more prominent, whether expressed through empowering experiences and strategies of First Nations Peoples or through more inclusive and respectful involvement of disenfranchised minorities in adaptation decision making and disaster response planning. Other areas of inquiry now examine policy failures that further hamper rather than strengthen adaptive capacities, such as those in the housing sector that prevent low-income residents from protecting themselves against heat waves.

The recognition of needing to address layers of injustices in adaptation while foregrounding just, inclusive, and dignified processes is starting to be reflected in adaptation strategies and policy. For instance, Australia’s recent National Strategy for Just Adaptation proposes a framework for just adaptation in policy and practice. Yet, the translation from recognition to locally meaningful practice needs to be ramped up rapidly, in parallel with efforts for just transitions in mitigation. To this end, it is time to enable new globally-networked conversations not only about conceptual and theoretical approaches in this area but also about tested, negotiated, and recommended practice and advocacy across various scales of mattering. We also propose to articulate a conversation across continents about leading practice to just adaptation, and the many remaining pitfalls, in order to speed up the world’s ability to respond in equitable ways to the rising impacts from climatic changes, including extreme events.

### Authors and Partner organizations

(some face-to-face and some online)

Petra Tschakert (Curtin University), Kate Nairn (Future Earth Australia), Roger Street (University of Oxford), Chandni Singh (Indian Institute for Human Settlements - IIHS), Sirkku Juhola (University of Helsinki; Climate Panel of Finland), Linda Shi (Cornell University), Paulina Aldunce (University of Chile), Jola Ajibade (Portland State University), Braiden Abala (Partnerships for Infrastructure – P4I, Thailand), Naomi Godden (Edith Cowen University), Karen Paiva Henrique (University of Amsterdam), Gina Ziervogel (University of Cape Town), Georgina Cundill Kemp (International Development Research Centre – IDRC), Satya Ramen (Government of Nova Scotia), Lisa Schipper (University of Bonn), and Mark Stafford-Smith (CSIRO). Others may be added following pre-conference scoping meetings.

room 520E F

Side event

## session 984

Room 519A

Adaptation Choices

### Adapting our infrastructures to climate change while transitioning to a circular economy model

In the past years, a lot has been done to decrease the carbon footprint of our built-environment, but we still have a lot to do to reach carbon neutrality in 2050, as required to keep the temperature increase below 1.5 or 2°C. In the meantime, the effects of climate change are already being felt and strongly affect our infrastructures. There is an urgent need to change the way we build to adapt our infrastructures to this new reality. And doing so, we must not increase the pressure by adding additional GHGs to the atmosphere. The circular economy model aims at optimizing the use of material and energy resources in order to decrease environmental impacts associated with extraction, manufacturing, use and disposal activities. The construction sector’s circularity is still very low and the implementation of circular economy strategies is very challenging. While we develop innovative solutions to adapt our built-environment to climate change, we must be proactive and already integrate circular economy strategies. How can we do that?

### Authors and Partner organisations

**Organized by:** AdapT Institute at École de technologie supérieure

**Chaired by:** Annie Levasseur, Professor at École de technologie supérieure and Scientific Director of AdapT Institute

**Presenter 1:** Hugo Lafrance, Associate and Director Sustainability, Lemay

**Presenter 2:** Gabriel Jobidon, Professor, École de technologie supérieure

**Presenter 3:** Hortense Montoux, Project manager of the construction sector circular economy living lab from CERIEC at École de technologie supérieure

## session 741

Room 518A

Indigenous Knowledge

### Indigenous anti-displacement manifestoes: Community strategies of resilience and resistance

Climate displacement is a pressing global issue. Indigenous communities are simultaneously vulnerable to disasters—through shared histories of colonization and systemic exclusion from power—and resilient, through localized knowledge systems, community unity and cultural practices. By exacerbating existing hazards and triggering cascading disasters at increasing scales, climate change represents the most significant challenge to these communities since colonization.

In Canada, Indigenous communities are faced with impacts of disasters and climate change that are disproportionate compared to other communities. This reality flows from historical and ongoing racist policies, such as the Indian Act, that dispossessed land, suppressed culture, and placed reserves in hazardous locations. Climate change is exacerbating disaster risks. I the face of increasing climate risk, some communities will have to consider relocation. Drawing on Indigenous disaster risk reduction, decolonial climate adaptation, and intersectional scholarship and praxis, in this panel we examine an emerging praxis that explores the multiple objectives and identities that Indigenous Peoples occupy which produce unique vulnerabilities, capacities and encounters with adaptation policy and practice (Johnson, Parsons and Fisher, 2021). This session brings together Indigenous researchers and community voices to present current Indigenous DRR thinking and practices.

#### Authors and Partner organizations

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Patrick Michell, Kanaka Bar Indian Band, Lytton, Canada  
Darlene Munro, Siksika Nation, Canada  
Astokomii Smith, Siksika Nation, Canada

Faisal Bin Islam, University of Delaware, Newark, United States  
Lilia Yumagulova, Preparing Our Home Program, Slocan, Canada

## session 799

Room 519B

Governance & Finance

### Aligning perspectives to unlock the potential of climate adaptation finance and close critical funding gaps

Financing climate action has finally taken center stage in the decision-making of country leaders, public and private financial institutions, corporations, and other policymakers. Leveraging this collective focus to scale up investment in climate adaptation is critical to build global resilience to worsening climate impacts. While adaptation investment is growing, it is far from what is needed. In 2019-2020, of the more than USD 600 billion annually tracked to climate finance, USD 49 billion was committed to climate adaptation, a fraction of what is needed to address accelerating climate risk.

The financing gap is a central topic in recent scientific and policy dialogues. Bridging the financing gap will require better alignment between funding communities, including private sector, public sector, philanthropy, and other types of funders and across issue areas, recognizing interrelations between mitigation, adaptation, and biodiversity as well as the growing importance of the intersection with digitalization.

#### Authors and Partner organizations

**Lead organizers:**

Future Earth Canada and Sustainability in the Digital Age & Climate Policy Initiative

**Collaborators (preliminary):**

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Morgan Richmond (Climate Policy Initiative)



## session 746

Room 518C

Adaptation Choices



## EbA in practice: Lessons from implementers on planning and measuring EbA

Through a series of short presentations, this knowledge exchange session aims to provide attendees with a comprehensive understanding of the Ecosystem-based Adaptation (EbA) approach, particularly its effective planning and monitoring. The session will feature experiences at different scales and from various implementers, including Indigenous Peoples and Local Communities (IP & LCs), academia, government, civil society, and international organizations. Participants will learn about the criteria and standards for EbA, understand the importance of stakeholder engagement throughout the process, become familiar with different strategies and practical tools for planning and monitoring EbA initiatives, and gain more awareness of how to demonstrate EbA outcomes.

### Authors and Partner organizations

**Session chair:**

Carolina Chambi (Programme Officer, Nature-based Solutions, UN Environment Programme World Conservation Monitoring Centre (UNEP-WCMC))

**Speakers:**

- David González (Policy Officer, Global Resilience Partnership)
- Paul DeMerritt-Verrone (Water and Ecosystems Technical Specialist – CARE USA)
- Rosa Morales (Program Manager for Climate Change, Water Resources, and the Amazon, CARE Peru)
- Emily Campbell (Pou Whakamahere Kaupapa Here – Tikanga Māori Policy Planner, Hutt City Council)
- Tui Warmenhoven (Community Researcher, Ngāti Porou)
- John Reid (Senior Research Fellow, The Ngāi Tahu Research Centre)
- Annie Huang (Kairangahau – Research Assistant, The Ngāi Tahu Research Centre)
- Elena López-Gunn (CEO and Founder, ICATALIST)
- Consultant representative from Commission for Environmental Cooperation – Awaiting final confirmation
- Shuchi Vora (Resilience Evidence Coalition Lead, Global Resilience Partnership)
- Alec Crawford (Director - Nature for Resilience, International Institute for Sustainable Development)

session 978

Room 523

Multiple Risks

## Basins’ Resilience, Water Adaptation and Management: Challenges and Opportunities

This session seeks to discuss several water resilience and governance related experiences in different latitudes of the globe that assess and show how civil society, experts, decision-makers, and First Nations could face the future challenges and opportunities of water, and how information, mechanisms, and policies could contribute to strengthen more resilient communities.

### Speakers and Partner organisations

- Sonja Behmel, International Secretariat for Water (Québec, Canada)
- Lisa Scharf, Martin Hämmerle, and Regina Patzwahl, Federal Waterways Engineering and Research Institute (Karlsruhe, Germany)
- Neha Singh, Indian Institute of Technology Bombay (Bombay, India)
- Sarah Redicker, University of Exeter (Exeter, United Kingdom)
- Kayla Sunday, Mohawk Council of Akwesasne (Akwesasne, Canada)
- Koto Dagnon, Benin Youth Parliament for Water, (Cotonou, Benin)
- Vladimir Arana, International Secretariat for Water (Montréal, Canada).

session 766

Room 522

Limits to Adaptation

## Effective support for transformative adaptation: What is it and how do we know we’re making progress?

Over the last 10 years, considerable literature has called for, and struggled to define, transformative adaptation. At the same time, a host of development practitioners, aware of the urgency of this work, have endeavored to bring this lofty concept into practice. These practitioners have worked with a wide range of organizations to synthesize knowledge, organize planning sessions, recommend investments, articulate policies, design programming, and manage trade-offs — all with the goal of fostering systems-level transformative change. This session provides an opportunity for practitioners to share their experience, adding to the growing number of case studies of transformative adaptation and further illuminating both the challenges and opportunities in advancing the practical work of transformation. The session will involve a mix of formal presentations and audience participation; it will both share and generate knowledge regarding the sorts of choices development practitioners can make to support transformative adaptation.

### Authors and Partner organizations

- USAID Center for Resilience; USAID Center for Adaptation Support Activity; Gates Foundation; Ethiopian Agricultural Transformation Agency; others
- Presenters**
- What is transformative adaptation and how does the USAID Climate Strategy support it? - Laurie Ashley - USAID Center for Resilience
- Agricultural transformation at Gates Foundation. - Steve Prager - Senior Program Officer for Agriculture Transformation Strategy - Bill & Melinda Gates Foundation
- Transforming water systems in the Philippines through Safe Water - Maria “Ella” Lazarte - Sr. Water and Sanitation Advisor, USAID
- Transforming Ethiopia’s Agricultural Sector - Mandefro Nigussie - Chief Executive Officer of the Ethiopian Agricultural Transformation Agency (ATA)





session 389

Room 524A  
Collaborative

Indigenous Knowledge



## The Climate Atlas of Canada: Weaving Indigenous and Western Knowledges to Advance Applied Adaptation

The Climate Atlas of Canada ([www.climateatlas.ca](http://www.climateatlas.ca)) connects science and storytelling with local and Indigenous knowledges to support applied adaptation locally, regionally, and nationally. This interactive digital platform, launched in 2018, was built upon years of climate mapping and filmmaking by the team that developed it, which now spans the Prairie Climate Centre (PCC) and the Pacific Institute for Climate Solutions (PICS). The platform initially visualized data for cities, towns, and regions – from coast to coast to coast – and created immediate opportunities for local, provincial and federal partners to access and use data for applied adaptation. Although the tool was ground-breaking at the time, the Climate Atlas team also recognized that maps have been used as colonial tools, and they set out to decolonize the platform by, with, and for Indigenous partners. A revised version of the Climate Atlas was launched in 2022.

The tool now takes a “two-eyed seeing” approach, which weaves together Western and Indigenous knowledges, and now includes climate projection data for all 634 First Nation reserve communities, all 53 Inuit communities, and projects across the Métis homelands. This major update to the Climate Atlas was co-developed with the Assembly of First Nations, Métis National Council, and Inuit communities and partners. By taking a distinctions-based approach, this new Indigenous Climate Atlas brings together diverse Indigenous perspectives, stories, and knowledges with climate data and other resources to advance climate action, resilience, and reconciliation.

This interactive session will introduce the Climate Atlas – the philosophy, pedagogy, and partnerships – and share the ongoing processes and progress of the initiative. Through dialogue and sharing, this session will bring to light the complexities and critically important opportunities for research and tool co-production, which links climate science and cartography with local and Indigenous knowledges, video-based storytelling, and planning and design approaches. Diverse voices will guide the conversation and opportunity for knowledge exchange.

### Authors and Partner organizations

- Chairs:** Christey Allen, Prairie Climate Centre; Ian Mauro, Pacific Institue for Climate Solutions
- Plenary Presenters:** Sheila Watt Cloutier; Brett Huson, Prairie Climate Centre; Annie Martel, Graduate Student, Prairie Climate Centre; Elmer Lickers, Ontario First Nations Technical Services Centre
- Breakout Group Presenters:** The Application of Two-Eyed Seeing; Ian Mauro, Pacific Institue for Climate Solutions; Sheila Watt Cloutier; Brett Huson, Prairie Climate Centre; Eromose Ebhuoma, Prairie Climate Centre
- Tools for Risk Assessment and Adaptation Planning:** Elmer Lickers, Ontario First Nations Technical Services Centre; Danny Blair, Prairie Climate Centre; Matthew Loxley, Prairie Climate Centre; Izabella Robak, Prairie Climate Centre
- Community-based Storytelling:** Marcel Kreutzer, Prairie Climate Centre; Erika MacPherson, Prairie Climate Centre; Annie Martel, Prairie Climate Centre

session 349

Room 524B  
Collaborative

Multiple Risks

## Pushing the envelope on climate change risk assessments: Aspirations, lessons learned, and new horizons

As climate change impacts are becoming more frequent and severe, many governments are rethinking approaches on how to assess and prioritize climate change risks. New ideas and novel approaches to climate change risk assessments are increasingly being explored, including co-development, enhancing engagement, centring equity, increasing the scope and comprehensiveness of what’s assessed (e.g., compounding, intersectional, and cascading risks across social and ecological systems), using the latest science and methodologies, and exploring new ways to overcome limitations.

These attempts are most often met with a mix of expected and unanticipated successes, challenges, and lessons learned. With much effort put into developing climate change risk assessments, their benefit in terms of adaptation planning rests on overcoming challenges in communicating, translating, and mobilizing findings in ways that are relevant, practical, compelling, and accessible for diverse audiences.

This session will begin by offering insights and lessons learned in challenging the status quo in both implementing and sharing climate change risk assessments and will create space for conference participants to connect and share their respective successes, challenges, and lessons learned with one another. The session will be guided by a central question: What are some key opportunities, insights, lessons learned, and considerations to improve how climate change risk assessments are developed and ultimately used by intended audiences?

### Authors and Partner organizations

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- Emma Squires, Senior Policy Analyst, Climate Risk Management at the B.C. Climate Action Secretariat
- Fionna Warren, Natural Resources Canada
- Satya Ramen, Manager, Research and Knowledge Mobilization, Nova Scotia, Department of Environment and Climate Change

session 974

Room 524C  
Collaborative

Teaching & Learning

## Building understanding and capacity of climate change adaptation through education and learning

Education through teaching and communicating is fundamental for building capacity and taking action to adapt to climate change. In this session we discuss different teaching approaches across the Global South and in different sectors—storylines, experiential learning, leadership, and professional practice for sustainable practice. The session comprises five short presentations and a panel discussion over 90 minutes.

### Authors and Partner organisations

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## session 525

Room 520A  
LAC Pavilion  
Hybrid

Adaptation Choices

### Integrating adaptation into business strategies: Tools, lessons learned, and public-private articulation opportunities from a LAC perspective

For companies across the world, integrating climate change adaptation into their corporate strategies is crucial, since climate change can present a threat to operations and supply chains, impacting the jobs, goods, and services they provide, and at the same time can bring about new business opportunities.

Building on the work of the Community of Practice on Public-Private Sector Articulation for Climate Action in Latin America (ArticuLAC) and the NAP Global Network (NAP GN), this online session will discuss tools available and practical examples of companies from diverse industries incorporating climate scenarios and multiple risk analyses into their decision-making processes for transformative adaptation and long-term resilience.

ArticuLAC is an initiative of the EUROCLIMA+ Program, through GIZ, the LEDS LAC Regional Platform and the Latin American Center for Competitiveness and Sustainable Development at INCAE Business School. Members representing more than 40 government and private sector organizations from 13 LAC countries participate in dialogue and capacity building activities, and collaborate in the development of knowledge products, with the purpose of promoting the alignment of public and private climate strategies and actions. One of the most recent knowledge products is a Toolkit that systematizes guides, web applications, case studies and other materials publicly available that can be useful for companies to integrate adaptation considerations into their corporate strategies.

### Authors and Prtner organizations

#### Panelists:

Virginia Vilariño, Argentina´s Business Council for Sustainable Development (CEADS) and LEDS LAC Platform (TBC)

José Alfredo Arce, Pozuelo Cookie Company, Costa Rica (TBC)

Evangelina Gómez, CERES, Ecuador (TBC)

#### Partner organizations:

Community of Practice on Public-Private Articulation for Climate Action (EUROCLIMA+, GIZ, LEDS LAC Regional Platform and INCAE Business School

NAP Global Network Secretariat, IISD.

## session 630

Room 520B  
Africa Pavilion  
Hybrid

Adaptation Choices

### From locally led metrics to international adaptation frameworks: capturing the diversity of adaptation needs and outcomes in communities across Africa and Asia

Local communities are the worst hit by the impact of climate change many vulnerable groups are dependent on livelihoods related to climatically sensitive sectors that are at serious risk. Coping strategies include developing local adaptation actions that are currently supported by Nationally Determined Contributions (NDCs) and National Adaptation Plans of countries and partners.

This session will exchange lessons and experiences on metrics for adaptation to build a shared understanding of how local measurement efforts can support an intersectional understanding of adaptation within national and international frameworks. The session will identify how funds and projects have captured adaptation needs and outcomes for different social groups within communities, and the challenges faced in building and integrating effective locally-led adaptation (LLA) into broader systems. Many adaptation interventions are not needs-driven and do not necessarily align with the differentiated adaptation needs of women, children, and other marginalized groups (Eriksen et al. 2021). Adaptation metrics have often struggled to capture differentiated outcomes within communities (UNEP, 2022). As such, it is unclear whether already disbursed funds will lead to the changes needed for all groups within diverse communities.

Adaptation finance structures are still relatively top-down across Africa and Asia due in part to a lack of consolidated insight and evidence on what works for local communities. This further impedes opportunities for supporting effective and inclusive locally-led adaptation. The IPCC Sixth Assessment report has revealed that while there is progress in efforts to address climate vulnerabilities in Africa, the outcomes of such efforts are mixed with certain groups getting better while others being pushed to the margins of vulnerabilities due to inequalities in interventions, policies, funding, and misalignment of adaptation priorities for different social groups. It is necessary to begin consolidating lessons and experiences to understand the metrics that capture diverse adaptation needs and to understand how these needs can be integrated into wider systems offering both depth and breadth of understanding around adaptation progress.

### Authors and Partner organizations

Joanes Atela – Africa Research and Impact Network (Session Chair); Sheehnaz Moosa and Blaise Dobson- SouthSouthNorth; Christine Grüning - Frankfurt School; Susannah Fisher- University College London; Bhim Adhikari and Marie-Eve Landry - (IDRC); Mikkel Funder and Alphonse Mollo- Rights and Resilience Project; Dharam Uprety- Practical Action; Lucy Njuguna- International Livestock Research Institute, Wageningen University & Research; Andreea Nowak - The Alliance of Bioersity and CIAT, Wageningen University & Research; Fredrick Dapillah- Simon Diedong University of Business and Integrated Development Studies; Jean-David Coulibaly - Climate Analytics; Robbert Biesbroek - Wageningen University & Research; Todd Crane - International Livestock Research Institute; Karl Schutz – Adaptation Works & International Platform for Adaptation Metrics; Charles Tonui – Africa Research and Impact Network, and the Africa Platform for Adaptation Metrics Initiative.

session 835

Room 520C  
Hybrid

Equity & Justice

## Advancing women’s leadership in climate action: Lessons from within and beyond adaptation

Efforts to advance women’s leadership in climate change adaptation have sought to address gender-related barriers and to enable the significant contribution of women’s diverse knowledge, expertise, experience and perspective toward adaptation research and action. These efforts show that sustained commitment is essential for more equitable participation in adaptation scholarship and practice, and more gender-equal outcomes from adaptation action.

This session will show and articulate lessons about advancing women’s leadership. This will draw on multiple initiatives working in diverse contexts within the adaptation research and practice community. It will also bring together the often-siloed research communities in adaptation and mitigation, to advance a shared goal of enhancing women’s leadership in climate action. In particular, it will draw on innovative efforts to promote women’s leadership in low-carbon economic activities.

The session will share lessons from across research and leadership programming, showcasing insights and innovation from the global South. It will highlight results from adaptation research projects that sought to advance knowledge and action on gender-transformative climate adaptation and disaster risk response. Case studies will highlight innovative approaches to strengthening women’s leadership in disaster risk reduction and response in Nepal and India, promoting gender and climate justice for migrant women in Buenos Aires, Argentina and enhancing gender responsive climate adaptation in agriculture in South Asia. It will also set out an agenda for advancing women’s empowerment and leadership in the low-carbon transition in the global South, highlighting new research in Central America and Nepal supported by IDRC’s Gender Equality in a Low Carbon World (GLOW) programme.

### Authors and Partner organizations

Heidi Braun and Arjan de Haan, International Development Research Centre (IDRC), Canada

Speakers:

Natalia Gavazzo, Universidad Nacional de General San Martin (UNAM), Argentina

Dipak Gyawali, Nepal Water Conservation Foundation (NWCF), Nepal

Mairi Dupar, Overseas Development Institute (ODI) / Climate and Development Knowledge Network (CDKN), UK

Margarita Beneke de Sanfeliú, Fundación Salvadoreña para el Desarrollo Económico y Social (FUSADES), El Salvador

Kanchan Lama, ForestAction Nepal

Dr. Sneha Krishnan, OP Jindal Global University; ETCH Consultancy Services, India

Dr. Aditya Bastola, independent gender consultant working with Asian Disaster Preparedness Centre, Nepal

session 58

Room 520D  
Hybrid

Adaptation Choices

## Urban climate resilient development: Reflections and insights from policy practice and research: opportunities, challenges and pathways for systemic change

This knowledge exchange session facilitates a dialogue between urban climate researchers, practitioners, and civil society, about climate resilient development in the context of five diverse cities in the global North and South

The 2022 IPCC Working Group II Report, Climate Change 2022: Impacts, Adaptation and Vulnerability defined climate resilient development as an approach which integrates adaptation and mitigation measures to advance sustainable development for all. The report emphasized the significance of key enabling conditions, such as: decision making which prioritises risk reduction, equity and justice, sufficient finance, and effective partnerships with business, and civil society including traditionally marginalised groups (Indigenous peoples, women, young or disabled communities). There are many diverse pathways to advance climate resilient development however options are constrained by ‘every increment of warming’, beyond 1.5°C (IPCC WGII SPM D1.1).

### Authors and Partner organizations

Prof Siri Ellen Hallstrøm Eriksen (Norwegian University of Life Sciences) and a policy official partner from the Oslo Municipality, Norway.

Dr Nick Simpson (Africa Climate & Development Initiative (ACDI), University of Cape Town) with a policy practitioner partner from City of Cape Town’s Strategic Planning and Policy Team and Resilient Unit

Prof William Solecki (Director of CUNY Institute for Sustainable Cities); with a policy practitioner partner from the US Urban Northeast

Associate Prof Minal Pathak (Faculty of Planning at CEPT University), Ahmedabad with a policy practitioner partner from Ahmedabad city/ Climate Change Department, Government of Gujarat,

Prof Bronwyn Hayward (University of Canterbury) with a Policy practitioner partner from Westport, Buller District Council New Zealand

Debbie Ley, United Nations Economic Commission for Latin America and the Caribbean, Energy and Natural Resources Unit

Lisa Schipper, University of Bonn



session 509

Room 520E  
Hybrid

Adaptation Choices

Improving farmer resiliency and livelihoods: Science- and data-driven approaches to Inform climate adaptation in smallholder agriculture

Communities and ecosystems around the world are already suffering from the devastating impacts of climate change. In the World Economic Forum's recent Global Risk Report for 2022, extreme weather, climate action failure, and livelihood crises were listed as some of the top ten biggest short-term threats already facing humanity, and environmental risks were ranked amongst the top ten biggest threats to humanity. In agriculture, unpredictable weather patterns and more frequent and severe weather events such as droughts, floods, and storms are already affecting farmer yields and threatening farmer livelihoods across the globe. These impacts are likely to continue to intensify in the near future, further disadvantaging some of the world's most vulnerable populations.

There is an urgent need to enhance the resilience of smallholder farmers and farming systems to climate change. Successful adaptation interventions in agriculture must be crop- and context-specific, informed by science and context-specific data, and navigate the multiple layers of uncertainty to ensure that they deliver the greatest impact to farming communities on the frontlines of the climate crisis. Farmers and agribusinesses must be equipped with the tools and resources to make informed decisions about adaptation planning and pathways. Empowering farmers with the data, knowledge, and expertise to understand how climate risks will impact their farms and farming businesses is fundamental in increasing their ability to adapt to a changing climate. Furthermore, innovative approaches to financing adaptation pathways will be critical in building smallholder farmer capacity to cope with the impacts of climate change.

This session will highlight the innovative ways in which different organizations are working with smallholder farmers to generate knowledge on the climate change risks in agricultural and rural communities and empower smallholder farmers with the data, knowledge, and resources to implement adaptation strategies. The session will highlight different approaches to providing data, tools and information to smallholder farmers in support of their adaptation strategies and will also provide examples of successful interventions where data initiatives have improved the resilience and adaptation of smallholder farmer groups.

Authors and Partner organizations

- Celia A. Harvey, Ph.D., Rainforest Alliance, Co-Chair
- Sabrina Kerin, Rainforest Alliance, Co-Chair
- Christian Bunn, Ph.D., International Center for Tropical Agriculture (CIAT), Panelist
- Pablo Imbach, Ph.D., Tropical Agricultural Research and Higher Education Center (CATIE), Panelist
- Antoine Libert-Amico, Ph.D., Food and Agriculture Organization of the U.N. (FAO), Panelist
- Maitreyi Koduganti, Indian Institute for Human Settlements (IIHS), Panelist

room 520F

Side event

session 572

Room 519A

Adaptation Choices

NBS to address coastal flooding: New tools and case studies from North America's emerging community of practice

The Commission for Environmental Cooperation (CEC) is a trilateral organization that brings together government officials, experts, practitioners, and stakeholders from across Canada, Mexico, and the United States to explore and promote solutions to protect the shared North American environment. The CEC is currently working on a project to support the broader implementation of nature-based solutions (NBS) to manage coastal flood risk in a changing climate, with the goal of maximizing co-benefits for coastal communities and the natural environment. The CEC offers a unique forum to leverage existing knowledge from across North America to foster the development of integrated flood risk management approaches and build capacity for the benefit of coastal communities.

Drawing on the diverse expertise from the three countries, a collection of guidance documents is currently in development and will be published ahead of the Adaptation Futures conference. These guides cover the topics of NBS co-benefits, retrofitting existing infrastructure using NBS, and monitoring NBS. The documents synthesize significant previous work, incorporate insights from an interdisciplinary community of practitioners, and propose new, practical decision frameworks and processes. In particular, the guides highlight the importance of adaptive management as applied in the context of climate change to address changing conditions, and the importance of engaging community members, Indigenous Peoples, historically marginalized groups, and other local stakeholders to anticipate and account for trade-offs between social, economic, and environmental outcomes.

In a series of scoping workshops in spring 2022, experts from across North America emphasized the need for knowledge and data sharing about other NBS projects to help identify best practices and build on lessons learned. As such, case studies are included in the guidance documents and the CEC is planning to bring together practitioners and decision makers from across the three countries to share their expertise; and the session at Adaptation Futures will be an opportunity to exchange as part of this ongoing process.

Authors and Partner organizations

- John Sommerville, Mary-Ann Wilson and Kelsea Walker (Natural Resources Canada)
- Catherine Lafleur, Pierre Huns and Annette Morand (Infrastructure Canada)
- Enda Murphy (National Research Council of Canada)
- Martha Niño Sulkowska and Gloria Cuevas Guillaumin (Secretaría de Medio Ambiente y Recursos Naturales),
- Pedro Joaquín Gutiérrez and Maxime Le Bail (Procuraduría Federal de Protección al Ambiente - PROFEPA)
- Isabel Selene Benítez Ávila, Leonel Álvarez Balderas and Juan Domingo Izabal Martínez (Instituto Nacional de Ecología y Cambio Climático - INECC)
- Trisha Bergmann (National Oceanic and Atmospheric Administration)
- Julien Katchinoff (U.S. State Department)
- Lucie Robidoux (Commission for Environmental Cooperation)

session 979

Room 518A

Multiple Risks

## Building resilience in fisheries management: Insights from around the globe

Experts from research and practice share valuable insights from around the world on implementing climate adaptation in fisheries management and increasing resilience for coastal communities. Four diverse case studies will be presented, with the first looking to the Canadian north and the bridging fisheries science with Indigenous knowledge to increase resilience in fisheries management and food security. Second, we'll look at identifying adaptation solutions through a gender lens with the introduction of CARE USA's Gender Transformative Approach in coral reef and aquaculture adaptation. Next, we'll touch on the lessons that resilience pathways in American lobster fisheries can offer fisheries adaptation planning and management, and the last case study will showcase the role of information ecosystems in facilitating or inhibiting action on climate change adaptation of climate-vulnerable groups. The session will close with a dynamic discussion on operationalizing adaptation solutions, bridging the gap between research and practice, and communicating with diverse stakeholders.

### Authors and Partner organizations

- Chair:** H  l  ne Osterman, Ouranos
- Panelists:**
- Dylan Fraser, Concordia University
  - Katherine Maltby, Gulf of Maine Research Institute
  - Khalid Hossain, Monash University
  - Moushumi Chaudhury , Care

session 975

Room 519B

Governance & Finance

## Lessons from the GCF: transformational finance for climate justice

The GCF is one of the largest and most influential climate funds. Its portfolio is important to analyze in its own right, but it also offers broader lessons for climate finance and is a demonstration site for piloting new and innovative climate finance mechanisms. In this session, presentations will analyze various aspects of the GCF portfolio, offering reflections on a) the process of decision-making, b) the ways that transformation is conceptualized in the GCF, and c) the tensions and synergies between mitigation and adaptation in the GCF portfolio. Presenters will also offer insights from the experience of the GCF for climate finance more broadly, including the design of the Loss and Damage Facility and innovative financial mechanisms such as debt-for-climate swaps. Collectively the presentations in this session will reflect on insights regarding the potential of climate finance to promote climate justice and provide recommendations to help achieve this.

### Authors and Partner organizations

**Chair:** Laura Kuhl, PhD - Assistant Professor - School of Public Policy and Urban Affairs and International Affairs Program, Northeastern University



session 966

Room 518B

Indigenous Knowledge

## Adaptation Across the Metis Motherland

As one of the three National Indigenous Organizations of Canada, the Métis National Council has been tireless in its efforts to actualize climate adaptation solutions that are equitable, inclusive and effective. The Métis cultural identity is profoundly linked to stewardship of the land and our connection with the land. Climate change does not only impact our food security, health, safety and livelihoods but it directly impacts how we connect with our communities, culture and history. Despite the impacts of climate change, Métis identity, culture and communities hold climate solutions that can provide adaptation domestically and abroad.

This panel will include representation from across the Métis Motherland to discuss how climate impacts different communities and identities throughout the diverse Métis Nation. Panelists will discuss the historical and contemporary Métis stewardship of the lands, skies, waters and animals of the Métis Motherland. Our panel of experts will discuss programs that bring community, research and climate action together to monitor and adapt at home, in community and abroad.

Topics of discussion include:

- Braiding Métis Traditional Science
- Métis culture and environmental stewardship
- Community climate monitoring
- Adaptation engagement
- Adaptation action
- Whole of society approaches to adaptation

## Authors and Partner organizations

**Moderator:** Dane de Souza – Policy Advisor, Métis National Council

**Panelists:**

Jennifer Pylypiw – Engagement and Policy Manager – Métis Nation of Alberta

Ali Greenslade – Engagement Coordinator and Policy Analyst  
– Métis Nation of Alberta

Cole Chretien – Policy Analyst – Métis Nation of Saskatchewan

session 291

Room 518C

Nature-based solutions

## Nature-based Solutions for just Urban Adaptation – Case Studies from the Global South

With more than half of the global population residing in urban areas and still increasing urbanization rates, cities are particularly vulnerable to the effects of climate change. The impacts vary from indirect impacts such as economic losses, social inequalities, migration, and health-related issues to loss of life or destruction of infrastructure due to extreme weather events such as floods, droughts, and storms. Disadvantaged populations residing in urban areas are particularly exposed to these impacts due to lack of access to services and utilities. Nature-based solutions (NbS) have the potential to significantly improve the living conditions of these disadvantaged populations and increase their resilience to the adverse impacts of climate change. For example, NbS such as riverine management, green roofs and rain/community gardens can help to reduce the risk of flooding, reduce heat stress, and improve the air quality. Furthermore, NbS can also provide economic benefits for disadvantaged neighbourhoods by creating jobs in the green infrastructure sector and increasing property values.

This knowledge sharing session will explore the potential of NbS for infrastructure and just urban development with a focus on disadvantaged communities. It will examine the challenges and opportunities associated with planning and implementing NbS in urban areas in the global south, as well as the potential benefits of these approaches for reducing vulnerability to climate change impacts. Furthermore, the session will also discuss the key challenges and opportunities associated with scaling-up and mainstreaming projects related to NbS, including issues related to governance, infrastructure financing, and stakeholder engagement. Overall, this session will provide valuable insights for practitioners, policymakers, and researchers working on climate change adaptation, and will highlight the potential of NbS and green infrastructure to support just, sustainable and resilient urban development.

## Authors and Partner organizations

Amina Schild (CitiesAdapt, GIZ) - moderation

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James Nyagol (County Government of Kisumu, Kenya)

Alannah Hofemeier (PlanAdapt, Germany)

Sheetal Patil (Indian Institute of Human Settlements)

Liesbeth Casier - International Institute for Sustainable Development (IISD)



session 972

Room 523

Multiple Risks

Addressing water insecurity: A multi-dimensional perspective on causes, consequences and solutions

This session will feature five studies focusing on various aspects of water security and resilience in different regions of the World. The first study investigates the driving factors behind water security risks in Maharashtra, India, emphasizing the need for integrated analysis of biophysical, hydro-climatic, and socio-economic factors to inform policy measures. The second study explores water supply sustainability and adaptation in drought-affected areas of Mbhashe and Mnquma in South Africa, highlighting challenges faced and potential adaptation options through knowledge co-production. The third study presents the OWASA project, which utilizes open science to support water security and drought risk management in Southern Africa, offering data products, assessment frameworks, and decision support for adaptation measures. The fourth study examines the root causes of gender inequality in climate resilience and water security in Benin, Cameroon, Tunisia, Uganda, and Zambia, employing a gender transformative approach to identify barriers and opportunities for addressing inequalities. Finally, the fifth study focuses on understanding the drivers of emergency response to growing water insecurity in critical health infrastructures from humanitarian and low-resource contexts and discusses the possibility that the German and comparable Global North contexts could learn from the findings to increase their adaptation capacities. Together, these studies contribute to the understanding of water security challenges and provide insights into effective strategies for enhancing resilience and sustainability.

Participants

**Chair:** Anne Blondlot, Ouranos

session 980

Room 522

Equity & Justice

The session will cover presentations from (i) DanChurchAid's programmatic responses to conflict and climate related loss and damage in Mali, outlining perspectives and/or lessons on the collaboration with research institutions to quantify "Non-Economic Losses and Damages" and contribute to building an evidence base for the identification of community-appropriate responses, leveraging on local leadership and documenting gaps and opportunities to inform future adaptation interventions; (ii) Mercy Corp's Uganda-based USAID funded programme "Securing Peace and Promoting Prosperity Project" (EKISIL), offering new insights on recent approaches to addressing climate conflict risks, including insights on what works and challenges; (iii) a UKRI funded Prosperity and Peace Pathways Project output on differential vulnerabilities of populations on the frontline of interacting conflict, climate change and environmental crises in the Niger Delta region of Nigeria; and (iv) a political ecology analysis of the ways in which violent conflict interacts with agrobiodiversity and climate adaptation in agroforestry systems in the borderland region of East Africa (from an ongoing research at the Department of Global Development, College of Agriculture and Life Sciences, Cornell University).

Adaptation at the Nexus of Climate Change and Conflicts

People dealing with climate crisis and violent conflict at the same time are among the most vulnerable to socioecological shocks and most neglected by adaptation actions. In situations characterised by state fragility, adapting to both climate and conflict can be somewhat complicated as it can require major social, cultural, political, ecological or economic changes. In addition to the challenges of dealing with multifaceted and multidimensional needs, which are driven by a variety of overlapping and concurring factors, clearly differentiating between specifically conflict- versus climate-induced vulnerabilities and related crises becomes particularly challenging. This potentially impacts on the effectiveness and sustainability of possible responses aiming to integrate nexus considerations. At the same time, the climate change-conflict nexus often overlays other nexus dynamics at play – namely the humanitarian-development-peace nexus, thus making it even harder for communities to identify effective adaptation strategies to address these stress factors all at once. For these reasons, especially considering the urgency of the climate crisis, promoting integrated and multidisciplinary approaches to addressing climate and conflict-related crises becomes crucial. In fact, these multidimensional approaches, combining both science-based and traditional response/resilience mechanisms, are necessary to promote effective locally-relevant and community-led resilience building activities – not only to operationalise locally-led adaptation principles, but also to identify effective responses specifically aiming at preventing and/or compensating climate-induced losses and damages.

This session, organised around four presentations, will explore various context-specific changes and practical approaches to addressing the compounding threats of climate change and conflict that show the most promise for long-term transformational adaptation, and identify how to move them forward.

Taken all together, the session will tackle the following questions:

- What can we learn from the humanitarian sector to advance long-term adaptation in situations characterised by conflict and climate related loss and damage? And how does the climate change and conflict nexus play out in contexts characterised by multidimensional challenges related to wider needs – and along 'other nexuses'?
- In examining climate-conflict vulnerability and food insecurity relations, how/why do people's inability to cope with multiple interacting stressors undermine their capacity to improve their food security status?
- How do we decouple food security actions from risks emerging from the 'triple challenge' of conflict, climate and environmental crises?
- How can we minimize the risks associated with interventions along the humanitarian-development nexus, namely by ensuring that the 'do no harm' principle extends to the environment? In other words, how do environmentally- and climate-sensitive interventions reinforce the do no harm principle?
- How can donors support the implementation of holistic interventions and what type of funding is needed to address holistically these multidimensional challenges?
- What potentials exist in agroforest systems to buffer against the shocks and stresses posed by conflict and climate change?

Authors and Partner organizations

**Session chair:** Dr Uche Okpara, UK Research and Innovation Future Leaders Fellow, and Senior Lecturer in Climate Change, State Fragility and Conflict at the University of Greenwich, UK

**Speakers:** Elisa Benevelli [Head of Programmes DanChurchAid (Mali/Sahel)], Eliot Levine [Senior Director Climate & Water Security (Technical Support Unit) Mercy Corps], Uche Okpara [Natural Resources Institute, University of Greenwich] and Emily Baker [College of Agriculture and Life Sciences, Cornell University]



session 565

Room 525

Adaptation Choices

## Adapting to a changing climate: strategies for building climate-resilient health systems in Canada, US, and the UK

This session explores strategies and tailored solutions to address vulnerabilities and risks faced by health systems in the wake of climate change. Experts from the United States, United Kingdom, and Canada will present how they are working to build climate-resilient health systems through initiatives designed to increase the adaptive capacity of their local communities. They will discuss challenges and opportunities in adapting to a changing climate across various geographical contexts, including rural, urban, and remote settings. The session also focusses on the importance of monitoring and surveillance, intersectoral collaboration, and knowledge mobilization in promoting effective adaptation behaviours.

### Authors and Partner organizations

- Emin Nawaz, Health Canada (Chair/ Moderator)
- Melanie Madore, New Brunswick Department of Health (Panellist)
- David Demers-Bouffard OR Celine Campagna (TBC), Institut national de santé publique du Québec (INSPQ) (Panellist)
- Paddy M. Enright, University of Waterloo (Panellist)
- Lily Lessard, Centre intégré de Santé et de services sociaux (CISSS) de Chaudière-Appalaches (Panellist)
- Magalie Canuel, Institut national de santé publique du Québec (INSPQ) (Panellist)
- Sara Mehryar, London School of Economics Grantham Research Institute on Climate Change and the Environment (Panellist)
- Neil Muscatiello, New York State Department of Health (Panellist)

session 459

Room 524A  
Collaborative

Teaching & Learning

## Advancing knowledge brokering for climate action: A collective reflection and learning journey

Join the Climate and Development Knowledge Network (CDKN) for an interactive reflection journey in which we will all learn more about the world of knowledge brokering.

Climate knowledge brokers are understood as those individuals (hailing from practice, research or policy spheres) who aim to facilitate change, seeking to strengthen relationships, networks and understanding on the climate challenge, based on diverse types of knowledge and experience, to advance more evidence-based, inclusive and innovative decision-making and climate action.

CDKN's 12 years of working at the intersection of knowledge and adaptation action has revealed the urgent need to enhance capacities for more effective knowledge brokering, particularly at a time when climate action is critically needed. This requires practical and solutions-oriented tools, as well as soft skills, to navigate a complex environment encompassing a range of sectors and stakeholders with different values and priorities, at multiple scales. As different knowledge types and actors are brought together, different hierarchies - shaped by gender, sectoral affiliation, cultural or socio-economic factors - emerge, and these need careful, yet deliberate, surfacing to be acknowledged and possibly addressed. In the course of 2023, CDKN, in collaboration with diverse partners, has been developing and collating a series of modules, tools and approaches to strengthen the skills of climate knowledge brokers.

This interactive session will focus on one of the tools CDKN has developed - in the form of a card game - to create a peer learning space in which participants can reflect on different issues and elements critical to consider when working as knowledge brokers. By sharing their knowledge and experiences - wherever they are along the journey - participants will be invited to think about the kinds of questions we need to ask ourselves when working in the climate knowledge brokering space.

### Authors and Partner organizations

Lucia Scodanibbio (session chair), Lisa McNamara and Nadia Sitas, Climate and Development Knowledge Network; Georgina Kemp, International Development Research Centre



session 316

Room 524B  
Collaborative

Governance & Finance

**Auteurs**  
Ville de Montréal - Bureau de la transition écologique et de la résilience

Le Bureau de la transition écologique et de la résilience s’assure que la Ville de Montréal transforme ses façons de faire et augmente sa résilience face aux enjeux environnementaux comme la crise climatique et la perte de la biodiversité.

Architecture sans frontières Québec  
Architecture Sans Frontières Québec (ASFQ) est un organisme qui vient en aide aux populations victimes de crises, de catastrophes naturelles ou d’inégalités sociales. Il œuvre avec les communautés pour renforcer leurs capacités grâce à l’engagement de différents acteurs de l’architecture. ASFQ intervient outre-mer, avec d’autres organismes canadiens de coopération internationale, et au Québec, en milieu urbain, et auprès des peuples autochtones.

Pratiques exemplaires d’aménagements résilients aux inondations en milieu urbain : vers un modèle de gouvernance inclusif et efficace

La conception d’aménagements résilients aux inondations est essentielle dans un contexte d’incertitude croissante. Que ce soit à l’échelle des villes, des quartiers ou des propriétés, elle repose sur la cartographie et la modélisation des aléas, permettant ainsi une meilleure compréhension du territoire, des dangers auxquels il est exposé et des vulnérabilités des personnes qui l’habitent. Il en résulte le développement de plus en plus de projets dits exemplaires. Ceux-ci sont fondés sur des données scientifiques qui abordent notamment l’intégration des infrastructures naturelles et la nécessité d’adapter les bâtiments tout en étant en accord avec les objectifs des politiques publiques et pensés pour le bien commun.

Cependant, la mise en œuvre de tels projets, surtout dans des zones déjà largement urbanisées, peut être entravée par de nombreux obstacles liés à la gouvernance, au financement, aux cadres réglementaires et législatifs, ainsi qu’à l’acceptabilité sociale.

Pour répondre à ce défi, le Bureau de la transition écologique et de la résilience (BTER) de la Ville de Montréal, en partenariat avec Architecture Sans Frontières Québec (ASFQ), propose un Café du savoir visant à identifier les capacités et les pratiques de gouvernance qui accélèrent la mise en place d’aménagements résilients aux inondations, allant des échelles des villes à celle du logement. La réflexion s’inscrit dans un contexte où la conception de projets résilients ne doit pas être seulement basée sur une logique de coûts-bénéfices, mais doit également permettre des débats sur des choix collectifs et une approche de la gestion des risques axée sur la résilience communautaire.

Afin d’orienter les discussions, Gilles Côté, directeur du développement du territoire de la Ville de Montréal, exposera la problématique des inondations et les actions mises en œuvre en contexte montréalais. Des courtes présentations suivront pour dresser le portrait de la session. Les connaissances de trois aménagistes spécialisés dans les stratégies visant à réduire les risques liés aux aléas hydrauliques seront ensuite mises à profit à travers une approche créative, conjointe et inclusive.

Participants confirmés

Gilles Côté, Directeur du développement du territoire de l’arrondissement d’Ahuntsic-Cartierville de la Ville de Montréal.

Joanna Eyquem, Directrice générale, Infrastructures résilientes au climat au Centre Intact d’adaptation au climat (Université de Waterloo).

Élène Levasseur, Directrice de recherche et d’éducation chez ASFQ.

Catherine P. Perras, Urbaniste - Conseillère en aménagement du territoire et urbanisme à Vivre en Ville.

Sybil Zettel, Conseillère en planification à la Ville de Montréal.

session 79

Room 524C  
Collaborative

Adaptation Choices

Driving transformational change through action-orientated research

Climate Adaptation and REsilience (CLARE) is a seven-year initiative funded jointly by the United Kingdom and Canada, aiming to lead to transformational changes in adaptive capacity that will benefit vulnerable communities to tackle weather and climate change in the near and longer term. In 2022, the initiative convened a global call for research ideas that meet CLARE objectives whilst being transdisciplinary and system-focussed, needs-driven, action-orientated, and southern led. With a combined investment of over USD 130 million, of which roughly USD 50 million allocated to this call, CLARE is one of the world’s largest initiatives in adaptation research.

The knowledge exchange will convene dialogue on enabling partnerships for research that enable transformational changes benefitting the most vulnerable communities. Researchers, practitioners and funders will examine the approaches that enable action-orientated projects that create and nurture diverse, southern-led partnerships and collaboration. The session will be opened and closed by independent advisors that provide a critical perspective on CLARE. Representatives from FCDO and IDRC will briefly share key insights from establishing the programme, then facilitate discussion involving leaders from the CLARE consortia, tapping their experience convening and planning research that involve diverse coalitions.

Participants and Partner organizations

**This knowledge exchange is convened by:**

Foreign, Commonwealth and Development Office (FCDO)

International Development Research Centre (IDRC)

**Participants:**

Arame Tall (World Bank) and Lisa Schipper (Bonn)

Elizabeth Kendon (Bristol) or Luis Artur (UEM)

Babatunde Abiodun (UCT)

Daniel Geiger (Hamburg)

Ayan Mahamoud (IGAD, Kenya)

Kate Gannon (LSE) or Julie Truelove (WaterAid)

Veena Srinivasan (KREA University) or Tom Omollo (IFRC)

Chandni Singh (IIHS) or Amina Maharjan (ICIMOD)

Blanche Butera (Rwanda)

Louie Posadas (TAMPEI, Philippines) or Vanesa Castan Broto (Sheffield)

Manuela Di Mauro Climate Science and Adaptation Advisor, FCDO

Heidi Braun, Senior Program Officer (capacity strengthening), IDRC

session 568

Room 520A  
LAC Pavilion  
Hybrid

Nature-based solutions

Hydro-social landscape approaches in Ecuador to link improved water management, health and other co-benefits in the face of climate change

This event looks at the experiences of landscape approaches established by CARE Ecuador under the Climate Change Adaptation of Andean Populations (ACCRE) project. Specifically, the session focuses on sharing the “how we got here” of this experience, with the goal of facilitating exchanges between practitioners on what works and does not work, and recommendations moving forward. Landscape approaches can be complex and require coordination and goal setting among multiple sectors, actors and levels of government to balance demand and use of landscapes. However, the impact and social benefits can be extensive, including improvements to environmental conservation, climate adaptation, water security, gender equality and social justice, sustainable livelihoods, and health. CARE’s model in the Pedro Moncayo canton promotes agroecological practices and the conservation of the paramos -- highland mountain grasslands that provide critical water and ecosystem services. The model has protected over 6,000 ha and restored 160ha of water recharge zones while also providing co-benefits in improved health, livelihoods based on agroecological principles, and capacity strengthening for community organizations and public sector actors working in climate change and water resources management. CARE’s hydro-social territorial approach has five main components: i) ensure responsible production processes based on agroecology; ii) development of local regulation for the conservation of ecosystems that provide water services; iii) delineation of agricultural boundaries and conservation corridors to reduce the effects of agricultural production on the health of the water-supplying paramos; iv) conservation and restoration of paramos / water sources / water recharge areas; and v) valuing the inclusion of women in the community as central actors of change. This session will focus on what it took to negotiate goals, meaningfully engage government, private sector and communities, develop fit-for-purpose policy and legislation, set up agroecological production and markets, and how to use conservation and water funds based on local public policy to improve the management and conservation of water recharge zones impacted by climate change. The water funds developed in Pedro Moncayo have been particularly useful in forming a multi-sector coalition of water utilities, private sector actors, civil society organizations, community and women’s groups, and small-scale farmers that are brought together through a shared financial mechanism that funds mutually beneficial solutions for the protection of the paramos, such as training for agroecological livelihoods and the creation of water recharge zones.

Authors and Partner organizations

CARE Ecuador, CARE USA

session 230

Room 520B  
Africa Pavilion  
Hybrid

Adaptation Choices

Towards Integrated climate change adaptation and scaling strategies

Climate change has a growing and diverse impact on the five regions of Africa (East, Central, Northern, Southern and West). It exposes fragile farm households to more intense production and consumption shocks contributing to food insecurity (ACPC 2020). For example, in West Africa, a region characterised by negative economic growth, conflict and migration, climate change is considered a threat multiplier for the long-term livelihood security of farm households (IPCC, 2014). East, Southern and West African regions are expected to experience a reduction in GDP per capita ranging from 4 to 15% by 2050 due to increased temperatures ranging from 1°C to 4°C (ACPC 2020). Therefore, climate change and variability continue to worsen the vulnerability and limit the adaptive capacity of these farm households that rely on rain-fed agriculture for their livelihood. Indicative findings show an increasing frequency of droughts and decreasing yields of legumes, maize, sorghum, and millet in all three regions due to climate change and variability (Traore et al., 2013; Sultan et al., 2019)

Accelerating Impact of CGIAR Climate Research for Africa (AICCRA), funded by the World Bank research for development program, has been promoting integrated CSA and CIS innovations using socially inclusive business models based on context-specific enabling conditions. This program is implemented in six countries (Ethiopia, Ghana, Kenya, Mali, Senegal, and Zambia). With growing emphasis on leveraging private sector investments in CSA-CIS innovation and agricultural development to achieve impact at scale, validated CSA practices complemented with reliable, relevant and actionable climate information services have been recommended as a cornerstone of climate adaptation and an oasis for sustainable livelihoods at farm-scale in Africa (ACPC, 2020). Although private sector-driven inclusive business models have gained prominence globally as viable approaches to transform and build climate-resilient smallholder agri-food systems, there is still a gap in the scalability, suitability and sustainability of these models in the African context. Sustainable strategies for scaling CSA-CIS innovations require understanding the business models fundamental elements that drive the scaling process and radical change at the systems level. Therefore, there is a need to understand the incentive mechanisms that drive the behaviour change of the key value actors in the system and the scaling outcome. Additionally, more knowledge and understanding are required of the necessary conditions under which inclusive business models can create more equity and sustainable, resilient smallholder farming at scale within diverse farmers’ livelihood needs and geographical contexts.

Authors and Partner organisations

Authors and Partner Organisations:

Munyaradzi Mutenje, Sophia Huyer, Everisto Mapedza, Bhekiwe Fakudze, Tinashe Lindel Dirwai, Vimbayi Chimonyo, and Tafadzwa Mabhaudhi

Partner organisation

CIMMYT, ILRI and University of KwaZulu-Natal





session 238

Room 520C  
Hybrid

Indigenous Knowledge

Mutual learning across Indigenous, Local and Scientific Knowledges to better adapt to interconnected risks: towards building a global Community of Practice

In our increasingly interconnected and globalised world, the compound, cascading, and systemic nature of risks takes on a whole new dimension and meaning. As regularly observed, different parts of the world are experiencing devastating climate-related interconnected risks resulting in systemic, transboundary impacts. Indigenous and Local Knowledges are increasingly seen as a crucial part of building climate resilience and accelerating climate adaptation. This is also reflected in global policy frameworks, such as the Sendai Framework for Disaster Risk Reduction, the Paris Agreement, as well as in the latest version of the IPCC WG2 report. Recent literature also explores the 'integration' of Indigenous, Local and Scientific Knowledges (Hadlos et al. 2022; Vasileiou et al. 2022; Hermans et al 2022). However, there is clear evidence that recognition of these Knowledges is often just lip service, while best practices for on-the-ground practice are still under-researched and not widely shared, preventing increased and mutual learning between Indigenous Knowledge and modern technologies. Power imbalances and epistemic inequities between the Global North and Global South and social injustices within a country can also impact the degree to which such Knowledges are integrated.

To better understand and address this issue, we intend to organise a global knowledge co-production session/contribution using an innovative approach consisting of three consecutive phases: 1.) a pre-conference phase, 2.) the actual conference session, and 3.) a post-conference phase leading to a global Community of Practice (CoP). This facilitated process and the CoP serve to create a common platform for sharing best practices for climate change adaptation and interconnected disaster risk reduction based on Indigenous Knowledges and the co-production of Indigenous and Scientific Knowledges.

Participants

Mr. Joerg Szarzynski (lead), United Nations University Institute for Environment and Human Security (UNU-EHS), Bonn, Germany.

Ms. Mayashree Chinsamy, DSI-NRF Centre in Indigenous Knowledge Systems (CIKS), University of KwaZulu-Natal, Durban, South Africa.; Ms. Paola Fontanella Pisa, United Nations University Institute for Environment and Human Security (UNU-EHS), Bolzano, Italy.; Ms. Thirze Hermans, Wageningen University & Research, Netherlands; University of Leeds, UK.; Mr. Marc van den Homberg, 510, an initiative of the Netherlands Red Cross, Den Haag, Netherlands.; Mr. Oscar Lino, International Center for Humanitarian Affairs, a knowledge hub of Kenya Red Cross Society, Nairobi, Kenya.; Mr. Robert Šakić Trogrlić, International Institute for Applied Systems Analysis (IIASA), Laxenburg, Austria; Mr. Micha Werner, IHE Delft Institute for Water Education, Delft, Netherlands.; NN, ICIMOD, Kathmandu, Nepal; NN, Canadian Mountain Network/First Nation Representatives (CMN), Alberta, Canada; NN, Consortium for the Sustainable Development of the Andean Ecoregion (Condesan), Peru, South America; NN, Tohoku University, International Research Institute of Disaster Science (IRIDeS), Sendai, Japan; NN, Tsunami and Disaster Mitigation Research Center (TDMRC), Banda Aceh, Indonesia; NN, ASEAN Coordination Center for Humanitarian Assistance on Disaster Management, Jakarta, Indonesia; NN, WFP Zimbabwe.

session 602

Room 520D  
Hybrid

Indigenous Knowledge

Breaking the mould – Southern led micro-grants as a catalyst for scaling up Local Adaptation

Only 10% of climate finance committed from international funds was prioritised for local level in 2016 (Soanes,M 2017). This speaks to the power dynamics and hierarchies which prevent adaptation being shaped by and taking place at the local level. Through listening to the voices and experiences of the ARA Grassroots Action Research Micro-grantees (small grants given to 60 local organisations based in the global south for undertaking action and research on adaptation). This session will showcase how the micro-grants act as a tool to enable ownership by, and as a result concentrate actions on local and indigenous people most vulnerable to climate change in the following ways;

- Converging multiple knowledge types and sectoral stakeholders.
- Eliciting innovations around local climate action.
- Identifying new opportunities for building the knowledge base from a grassroots perspective or influencing a solution.

In addition to listening to the experiences of grantees themselves, this session will include a technical expert on Locally Lead Adaptation (LLA) who will frame the discussion in the wider context of LLA, to convey the importance of this kind of funding model for enabling the necessary transformation needed for communities to adapt to Climate Change. This proposal will speak to Theme 1 – learning from Indigenous and local peoples, and is anticipated to be a knowledge exchange session.

Authors and Partner organisations

Suggested speakers;

ARA – Sydney Church (female, moderator)

ARA/IIED - Aditya Bahadur (male, speaker)

The ARA will partner with 3 grantees from round 1 and 2 – suggested speakers include:

- PRIA Participatory Research In Asia (Micro-grantee, Asia) (Karol Anshuman, male)
- Universidad Nacional De Rosario (Micro-grantee, Latin America) (Maria Del Pilar Bueno, female)
- KASA Ghana (Africa) (Jonathan Gokah, male)



session 808

Room 520E  
Hybrid

Teaching & Learning

## Climate-action: Challenges, opportunities and good practices of formal and non-formal education

Agriculture is one of the sectors most vulnerable to climate change and is already coping with the impacts of climate change. Without urgent and wide-scale efforts towards adaptation, our global food security faces serious threats. Although options for adaptation exist, a challenge is to disseminate them widely and efficiently to all actors of agrifood systems. In this aim, formal and informal education will be two key complementary allies to support the public’s understanding of the challenges climate change will bring, and in preparing current and future generations to act to limit the magnitude of climate change and respond to those challenges.

Formal education systems cannot remain static in a rapidly changing world. If tailored to current challenges, they can prepare new generations to be changemakers in the climate crisis. To provide future generations with the knowledge and practical skills needed to protect the world around them, we must create curricula that empower people to take action and responsibility, and actively contribute to societal transformation.

In addition, informal education, which refers to teaching approaches happening outside of regular school curricula, gathers initiatives which complement and fill gaps of formal education. With enough reach to cater to those outside of formal education systems, it is also an incubator for innovative teaching approaches, based for instance on gamification. Informal education offers an accessible and flexible way of learning with emphasis on hands-on, practical learning experiences. Its potential has been harnessed in diverse contexts, teaching from children to government officials, with the aim of raising awareness or transferring complex skills.

### Authors and Partner organizations

Food and Agriculture Organization of the United Nations  
Université du Sine Saloum El-Hâdj Ibrahima NIASS  
Marondera University of Agricultural Sciences and Technologies  
Mer et Monde

session 496

Room 520F  
Hybrid

Multiple Risks

## Compound risks and vulnerability - What are implications for habitability and migration? Insights from research and practice

With the current reports and findings on the increasing dynamics (e.g. UNEP 2022, Armstrong McKay et al. 2022) and impacts of the climate crisis (e.g. IPCC 2022, Romanello et al. 2022, Steel et al. 2022), it is becoming increasingly clear that adaptation to climate change has limitations. Humanity is facing permanent and crisis-like changes. Complex linkages between physical drivers and societal forces exacerbate pre-existing habitability challenges for the most vulnerable people and ecosystems worldwide. For example, in 2022, Pakistan was affected by extreme heat in the spring, followed by extreme monsoon rains compounded by glacier melting that led to the country’s worst flooding in a decade. The flood event caused environmental devastation, suffering among humans and livestock, and reduced habitability 12 years after the 2010 flood disaster.

Against this background, “habitability” and its loss are increasingly recognized as important dimensions of climate change impacts, compound risk and vulnerability. Habitability extends the focus towards the necessary medium and also long-term perspective on development trajectories of regions and places. Building on recent contributions on habitability in the context of climatic and environmental change, as well as on the research of the HABITABLE project, this session approaches habitability from several angles: while it acknowledges that habitability is determined by interacting ecological and social systems, and processes, with compounding and cascading effects between various subsystems, it contends that the habitability of a given place is hardly objective and cannot be determined by analyses of macro-parameters alone. It is dependent also on individual and collective perceptions of changes and risks, adaptive strategies and capacities of populations in situ.

### Participants

The session is jointly organized by the EC- funded HABITABLE project, the United Nations University’s Institute for Environment and Human Security (UNU-EHS) and the Risk-KAN initiative.

**The session will be led by:**  
Prof. Dr. François Gemenne – Hugo Observatory, University of Liège, Belgium  
Dr. Lisa Thalheimer, Senior Researcher in the Environment and Migration: Interactions and Choices (EMIC) section at the United Nations University (UNU-EHS) and Steering Committee member at Risk-KAN.  
with support from Dr. Yvonne Walz, Associate Academic Officer, Interim Head of the Environmental Vulnerability & Ecosystem Services Division (EVES) at UNU-EHS.



session 670

Room 519A

Adaptation Choices

## Strengthening the resilience of food systems to climate changes through agroecology

Multiple crisis during the last years have highlighted the structural vulnerability of food systems to local or global shocks such as climate extremes, pandemics, socio-political instability. Several reports from the international community (FAO, IFAD, CIRAD, HLPE) stressed the importance to transform food systems to address current inequalities and strengthen their resilience and sustainability. The urgent need to transform food systems as a condition to address current and future challenges and contribute to the Sustainable Development Goals was also recognized by the international community during the 2021 UN Food Systems Summit.

There is a growing interest for agroecology and for its potential to inform the transformation of food systems towards more resilient and equitable outcomes. The recent COP 27 (Climate) and COP 15 (Biodiversity) also witnessed an increased interest of countries and international organizations for the potential of agroecology to adapt and mitigate climate changes and revert the dramatic trend of biodiversity loss.

Evidence for the overall viability of agroecology and for its potential contributions to adaptation and mitigations to climate changes across scales is increasingly robust. However, benefits are not uniformly distributed and the complex nature of food systems points to the differential impacts and trade-offs associated to agroecology in different agroecological and cultural contexts. How is it influenced by ecological dynamics, historical legacies, political economic relations, governance structures, and social institutions that shape who has access to resources and the agency to realize their goals.

The session will explore evidence and perspectives on the potential and limits of agroecology to guide a food systems transition toward more equitable, healthy, and sustainable outcomes in the context of climate changes. Building on practical case studies and research projects, it will review and discuss different perspectives on the potential, limits, conditions and trade-offs associated to agroecology, to support food systems adaptation to climate changes.

### Participants

**Facilitation:** Renaud De Plaen and Sandra Gagnon, International Development Research Centre (IDRC)

**Roundtable participants:**

Mamadou Goita, Institut de recherche et de promotion des alternatives de développement (IRPAD): Executive Director, socio-economist of development and engineer in management of education and training systems.

Lini Wollenberg, Alliance of Bioversity and Centro Internacional de Agricultura Tropical (CIAT): Anthropologist and natural resource management specialist concerned with rural livelihood and the environment.

Alvaro Acevedo, Universidad Nacional de Colombia (UNC): Specialist in agroecology and sustainable rural development.

Emily Baker, Cornell University: PhD Candidate in Rural/Environmental Sociology and Applied Ecology, in the Department of Development Sociology.

session 977

Room 518A

Multiple Risks

## Challenges in coastal zones

This session will touch on a multitude of challenges in the coastal zone including a coastal resilience deadline, multi-meter se-level rise in a populated low-lying country, adaptive capacity and local adaptation methods, as well as adaptation approaches.

### Authors and Partner organizations

**Chair:** Dr Sabine Dietz, Climatlantics

**Presenters :**

Ms Aishath Azfa, University of Melbourne

Dr Aysin Dedekorkut-Howes, Griffith University

Dr Elizabeth English, University of Waterloo

Prof Marjolijn Haasnoot, Deltares/Universiteit Utrecht

## session 466

Room 519B

Limits to Adaptation

### Research questions for enhancing actions to address loss and damage associated with adverse impacts of climate change

The COP established the Warsaw International Mechanism for Loss and Damage associated with Climate Change Impacts (Loss and Damage Mechanism), to address loss and damage associated with impacts of climate change, including extreme events and slow onset events, in developing countries that are particularly vulnerable to the adverse effects of climate change. COP27 decided to establish a dedicated fund for Loss and Damage, which has been seen as a big breakthrough for negotiations on the topic. Herein, promoting the implementation of approaches to address loss and damage associated with the adverse effects of climate change is important.

The proposed session is organized by the UN-led World Adaptation Science Programme (WASP), which is one of the four pillars of the World Climate Programme. WASP's core vision is ensuring that climate adaptation knowledge gaps are filled to inform evidence-based policies, solutions and actions for successful adaptation to new climate conditions. Our priority is addressing the knowledge needs in vulnerable developing countries and providing policy-relevant science for decision-makers.

The programme of the session requires 90 minutes, including a brief opening remark, one or two technical presentations, followed by a panel discussion with some interactive activities with the audience. The chair of the session will close the discussion with summaries and closing remarks.

### Authors and Partner organizations

**Leading experts:**  
Cynthia Rosenzweig, Anand Patwardhan, Johanna Nalau, Minpeng Chen, Bruce Currie-Alder, Saleemul Huq (tbc)

## session 233

Room 518B

Teaching & Learning

### Developing the capacity of professionals to address climate change adaptation: the leverage effect of international cooperation

The general objective of this session is to share knowledge on how to accelerate the development of the adaptive capacity of professionals. Many of the decision-makers and professionals currently addressing the impacts of climate change have received no formal training on climate change, nor on how to design adaptation solutions and pathways. There is an urgent need to develop their knowledge and skills and provide ad hoc tools designed for their area of work.

This session will focus on the training of professionals in the private and public sectors (e.g., building sector, tourism sector, local governments, funding institutions...) and the potential leverage effect international cooperation can provide for the learners and the teachers. The session aims to share knowledge through a panel discussion on the way in which capacity building programmes and resources have been designed and implemented, and the lessons learned of the effectiveness of different approaches.

The session will be chaired by ADEME, the French Agency for the Environment and Energy Management. A panel discussion will be organised with representatives from international initiatives who have developed professional capacity-building programmes for their sectors. The panellists will address the specific cognitive challenges climate change adaptation poses in various sectors, highlighting any gender and social considerations. The members of the panel will then share their analyses of the effectiveness of their training programmes, resources and tools and the challenges they have faced. Finally, the leverage effect of multilateral cooperation for the development of the adaptive capacity of both the trainees and trainers will be discussed.

### Authors and Partner organizations

**Session chair**  
Dr. Céline Phillips, French Agency for the Environment and Energy Management (ADEME)

**Panellists**  
Dr. Najat Zarrouk, Director of Development, Knowledge Management and African Local Governments Academy (ALGA), United Cities and Local Governments of Africa (UCLG-Africa)  
Garfield Young, Associate Professor & Dean, Faculty of the Built Environment, University of Technology, Jamaica  
Judy Zakreski, Senior Vice President, Global Operations & Solutions, International Code Council



## session 335

Room 518C

Nature-based solutions

### Climate action and innovation on nature Based solutions and equity in Canadian municipalities

The Municipalities for Climate Innovation Program (MCIP) was a five-year program, delivered by the Federation of Canadian Municipalities and funded by the Government of Canada. From 2017 to 2022, the program supported more than 600 municipalities under eight climate action programs, ranging from adaptation and mitigation planning to the integration of climate change data into asset management, feasibility and operational studies, and capital projects. The program provided funding, training and information sharing with the aim of encouraging municipalities to better adapt to the new realities of climate change, and reduce their emissions sources into the future.

#### Authors and Partner organizations

Alison Shaw, ACT - Action on Climate Team, Simon Fraser University  
Rebecca Sivel, Federation of Canadian Municipalities (FCM)

## session 663

Room 523

Governance & Finance

### Advancing collaborative climate adaptation: Lessons learned from a Municipal and First Nations adaptation project

For Canadians to build and improve resilience to climate change impacts, it is essential to continually develop and update climate change information that can guide adaptation strategies and action. A thoughtful approach to mobilize information and knowledge consists of both adequate translation of scientific knowledge and accurate translation of Indigenous Knowledge Systems. This understanding of climate change must be coupled with effective climate change response; response that requires collaborative, community-based approaches where governments and non-government actors work together to identify impacts, assess risks, co-produce plans, and take action.

To address this challenge, the Advancing Adaptation project led by ICLEI Canada, aimed to increase climate change resilience in communities in the Great Lakes watershed, regardless of their stage in the adaptation process. ICLEI worked with 27 Ontario municipalities and First Nations to build capacity around collaborative adaptation response over an 18-month period. Each participant identified the local partners and community members which were involved throughout the duration of the project, then in collaboration with a training lead, participants developed the adaptation response that best suited their local priorities and needs. These responses ranged from vulnerability assessment posters shared at a local hunt to community asset mapping during neighbourhood fairs to hosting shoreline erosion planting events. The innovation in this approach was both the collaboration requirement (between government and civil actors) as well as the local ideation of adaptation solutions.

#### Authors and Partner organizations

**Session Organizer:** ICLEI Canada - Ewa Jakson, Managing Director  
**Presenter/Panelist 1:** Shawnaga First Nation - Steven Kell, Species-at-Risk Biologist & Program Coordinator  
**Presenter/Panelist 2:** District of Muskoka - Lauren Valliere, Climate Initiatives Coordinator  
**Presenter/Panelist 3:** Dufferin County - Sara MacRae, Manager of Climate and Energy  
**Presenter/Panelist 4:** Georgian Bay Biosphere - David Bywater, Conservation Program Manager



## session 759

Room 522

Adaptation Choices

### Building the evidence base for inclusive adaptation in Africa

The proposed session organized by GCA's Research for Impact team in collaboration with Akademiya2063, a pan-African research organization, presents studies – undertaken in collaboration with research partners - that speak to the three research gaps set out above while at the same time examining entry points to address adaptation needs in line with the priority thematic areas of the AAAP. The five studies presented in this session speak to the following topics: the macro- and micro-economics of adaptation in agriculture including an assessment of existing or potential adaptive strategies to aid mainstreaming in policy, the how-to of adaptation job creation including a granular assessment of climate risk and barriers to adaptation such as disempowerment of women and how these can be overcome.

#### Authors and Session organizers

Global Center on Adaptation (GCA - <https://gca.org/>); an international organization working as a solutions broker to accelerate action and support for adaptation solutions, from the international to the local, in partnership with the public and private sector, to ensure we learn from each other and work together for a climate resilient future. Having its HQ in Rotterdam, GCA has regional offices in Africa, South Asia and Asia Pacific, and a knowledge and research hub based in Groningen, the Netherlands.

Fleur Wouterse, PhD, Director of Research

Gül Tuçaltan, PhD, Project Manager, Research for Impact

Amara Zongo, PhD, Research Fellow

Folake Kareem, Research Analyst

Sveva Lazzati, Research Intern

Akademiya2063 (<https://akademiya2063.org/>); an international Africa-based non-profit research organization with headquarters in Kigali, Rwanda and a regional office in Dakar, Senegal. AKADEMIYA2063's overall mission is to create a state-of-the-art technical capacities to support the efforts by the Member States of the African Union to achieve the key goals of Agenda 2063 of transforming national economies to boost growth and prosperity. The main goal of AKADEMIYA2063 is to help meet the needs of African countries in terms of data, analytics, and mutual learning for the effective implementation of Agenda 2063 and the realization of its outcomes by a critical mass of member states.

Getaw Tadesse; PhD, Director Operational Support

## session 172

Room 525

Adaptation Choices

### Incorporating health and well-being into climate adaptation actions

Responses to climate change risks have diverse consequences for dimensions of well-being and dimensions of health. Well-being includes safety, place, self and belonging. Both multi-dimensional well-being and the physical and mental dimensions of health and ill-health are under-accounted for outcomes from adaptation interventions and actions. These are key issues for the Making Adaptation Choices theme of the conference.

This session therefore presents new knowledge from across multiple disciplines on new measures, new methods, and new findings on how to account for the health and well-being consequences of adaptation, over and above the simple observation that adaptations that draw down climate risk avoid some of the negative consequences of impacts. The various research present uses both observational and action and co-creation techniques across the social and health sciences to seek to make adaptation assessments comprehensive and inclusive of diverse knowledge.

#### Authors and Partner organizations

##### Convened by:

Neil Adger and Catherine Butler, University of Exeter, UK

Stacey Heath, Open University, Milton Keynes, UK

Contributions of presented papers by: Hannah Hayes, Sergio Jarillo, Binaya Pasakha-la, Betetebu Asule, Catherine Butler and Stacey Heath.

Introduction to the topic and theme by: Neil Adger

Principal partners: University of Exeter, University of Melbourne, International Centre for Mountain Research and Development (ICIMOD), and co-authors from various institutions.



## session 464

Room 524A  
Collaborative

Adaptation Choices

### Effective adaptation: What is it and how can we measure and manage it?

The new estimates of the costs of adaptation and the estimated financial needs for adaptation from developing countries indicate higher values than previously reported (Adaptation Gap Report 2022, UNEP). There have been positive trends in the emergence of new instruments, actors and approaches to scale up adaptation, including in the private sector. However, the financial gap remains larger and larger. It is also important to note that finance is a means rather than an end: the availability of funds does not guarantee that they will be used efficiently and effectively. It is worth noting that insufficient evidence on the effectiveness of adaptation in different contexts, exacerbated by various metrics applied across projects and result in weak incentives for investment in adaptation.

The proposed session is organized by the UN-led World Adaptation Science Programme (WASP), which is one of the four pillars of the World Climate Programme. WASP’s core vision is ensuring that climate adaptation knowledge gaps are filled to inform evidence-based policies, solutions and actions for successful adaptation to new climate conditions. Our priority is addressing the knowledge needs in vulnerable developing countries and providing policy-relevant science for decision-makers.

The programme of the session requires 90 minutes, including a brief opening remark, one or two technical presentations, followed by a panel discussion with some interactive activities with the audience. The chair of the session will close the discussion with summaries and closing remarks. This session intends to conduct an open consultation with the wide adaptation community on the critical issue to address adaptation effectiveness, focusing on adaptation guidelines, metrics and toolkits currently in practice and in development at project, national, regional, and international levels, including vulnerability indexes.

The outcome of this session will contribute to the upcoming WASP science for adaptation policy brief on the topic, to be launched at the COP28. We also hope the discussion and outcome will help move forward the research agenda and policy process around this topic, informing IPCC, UNFCCC, GEF and GCF, the funding organizations of the WASP.

### Authors and Partner organizations

Cynthia Rosenzweig, NASA Goddard Institute for Space Studies

Sivapuram Ventaka Rama Krishna Prabhakar, Institute for Global Environmental Studies (IGES)

## session 295

Room 524B  
Collaborative

Governance & Finance

### From knowledge to action: Overcoming challenges, embracing opportunities and building community resilience through inclusive adaptation strategies

The science is clear. The benefits of effective adaptation action against extreme climate events—from wildfires to extreme heat waves to floods—are significant. Nevertheless, governments across the world continue to face a number of challenges in progressing from adaptation knowledge and planning to action. As climate impacts become more severe and the costs mount, the implementation of effective and inclusive adaptation strategies can help us work together more effectively and ensure that our collective actions do not leave anyone behind.

#### Purpose

The objective of this session is to explore and share transformative approaches to accelerate the implementation of local, regional and national adaptation strategies to increase the resilience of communities against the impacts of a changing climate. During this session, speakers from across government jurisdictions in Canada (federal, provincial, Indigenous and municipal governments) and participants from the international community will be discussing two areas of opportunity:

- Increased financial resources and innovation: What are the innovative long-term financial solutions and mechanisms at the public, private, or community levels that can be scaled up to better support communities affected by climate change? How can governments ensure with codes and guidance that all investments consider current and future climate change impacts, maximize benefits and avoid maladaptation?
- Enhanced participation, coordination, and empowerment: What are the most effective approaches for governments to co-develop inclusive climate adaptation decision-making processes and public information campaigns with multiple partners, Indigenous peoples and stakeholders? How can governments ensure that those processes advance equity and environmental justice, respect jurisdictions, and uphold Indigenous rights?

### Speakers

Laniel Bateman, Director at Environment and Climate Change Canada, will present about considering gender, equity, accessibility, and social inclusion in the development of Canada’s first National Adaptation Strategy (2022)

Tina Neale, Director at the Ministry of Environment and Climate Change Strategy of the Province of British Columbia (B.C), will present foundational actions included in the new B.C.’s Climate Preparedness and Adaptation Strategy (2022-2025), including practical actions to support Indigenous-led climate adaptation and improve understanding of climate change impacts on diverse populations.

Graeme Reed, Senior advisor at Assembly of First Nations, will discuss about approaches to advance First Nations Climate Leadership and learn from Indigenous peoples’ expertise in adaptation

Marieke Cloutier, Acting director of the Bureau de la transition écologique et de la résilience de Montréal, will share lessons learned from Montréal’s Climate Plan 2020-2030



session 393

Room 524C  
Collaborative

Governance & Finance

Good practice community and citizen engagement for accelerating a climate resilient future in Europe and beyond

In 2022, the European Union (EU) launched the Mission on Adaptation to Climate Change, to foster the climate resilience of regions, cities, citizens, and companies in Europe. The EU funded project, AGORA, brings together 13 partners from eight EU countries and the UK to support communities and citizens to accelerate their transformation to a climate resilient future. More specifically, AGORA aims to co-create a digital toolbox of innovative mechanisms and transdisciplinary approaches for inclusive climate governance that fosters citizen and community engagement using the Tandem framework for transdisciplinary co-design (Daniels et al., 2020). Different pilot communities and regions will advance adaptation action in the AGORA project by co-evaluating existing good practice with experts in different sectors using co-design methods to co-create visions, innovation pathways, and solutions.

Against this backdrop, we propose a transdisciplinary co-production session to facilitate dialogue across research and government, practitioners, civil society, private sector, and international organizations and foundations. The overarching objective of the session is to foster peer-to-peer learning on citizen and stakeholder engagement in adaptation planning and action. This will involve actors across the science-society interface sharing good practice, opportunities and barriers to engagement; co-creating innovative solutions for empowering vulnerable groups, integrating local knowledge, gender and equity considerations; and developing strategies for evaluating effectiveness of citizen and stakeholder methodologies.

All these insights will feed into the co-design of a 'Digital Agora', a toolbox of innovative mechanisms and approaches for inclusive climate governance and action. The co-created outputs of this session will also feed into the co-design of an evaluation framework for case study application and the implementation of the 'Digital Agora'.

Authors and Partner organizations

SEI HQ - Åsa Gerger Swartling, Mathilda Englund, and Karin André  
SEI Oxford – Rosie Witton and Sukaina Bharwani

session 611

Room 520A  
LAC Pavilion  
Hybrid

Indigenous Knowledge

Indigenous perspective of climate adaptation in food systems

The impacts of climate change on food systems and local communities are not homogenous. Given their socio-economic marginalisation and vulnerability, indigenous and smallholders farmers in climate hotspots are particularly affected. Dominant models of food production are increasingly being challenged for their role in climate changes and for their failure in responding to the needs of the most vulnerable populations, who experience hunger, miss key micronutrients or suffer from diet-related chronic diseases. New paradigms or models are required to inform the transformation of food systems to reduce inequalities and increase their resilience to climate changes. To be successful, these new approaches need to be anchored into deep understanding of local contexts and to consider the specific environmental conditions, and the knowledge and aspiration of local communities.

Increasingly, indigenous people are the focus of attention for their knowledge of nature, understanding of natural processes and deep bond to their environment. Their knowledge, practices and strategy, such as crop, land use and livelihood diversification; ancestral soil and water management systems; observation and interpretation of environmental, phenological and meteorological phenomena, can help communities monitor environmental change and adapt to increasingly unpredictable climate. Traditional governance systems and social networks also contribute to their ability to respond collectively to shocks and environmental changes.

This session will explore indigenous perspective on food systems and how it may be possible to leverage on the knowledge, expertise and vision of these communities to build food systems that are more equitable, more resilient to the changing climate and better contribute to their health and aspiration. Building on examples of climate resilient productive food systems, knowledge and practice that can improve climate adaptation, the session will focus on the constraints to implement and opportunities to scale these practices.

Authors and Partner organizations

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Renaud DePlaen, IDRC  
Terrylynn Brant, Mohawk Seedkeeper Gardens



## session 101

Room 520B  
Africa Pavilion  
Hybrid

Multiple Risks

### A reality check on pastoralist livelihoods in East Africa - Exploring opportunities to support adaptation in the Horn of Africa

Around 20 million men and women pastoralists in the Horn of Africa depend on healthy rangelands for their livestock. From 2021 to early 2023, herders have been impacted by drought conditions, that was preceded by a locust plague that swept across most of the region. A regional crisis has now unfolded with dire consequences. The crisis was compounded by the outbreak of COVID-19 which affected access to cattle markets and rendered many more pastoralists vulnerable. A conservative estimate of animal loss suggests that 5-6 million animals valued at around US\$350 million have died in Somalia alone. Climate-related hazards combine with existing conflicts leading to deep insecurity for pastoralists, particularly women, as they are often displaced and lack any access to the most basic of health, education, and extension services.

This session will present the current state of pastoralists in the border regions of North-Western Kenya, Somalia and South Sudan. It will review research gaps and opportunities to support adaptation action. Relevant questions include: what are pastoralists doing to adapt to the current drought in East Africa? How are the combined challenges of high food/commodity prices and climate impacts being managed? What urgent action is required to support the humanitarian response and future adaptation in the region?

The format proposed is a facilitated roundtable (under Knowledge Exchange). This roundtable will include testimonials from pastoralists living and working in conflict zones in East Africa (visuals, quotes and short videos) and a discussion on failures, successes and opportunities related to adaptation support for pastoralists. We also welcome additional speakers proposed by the Adaptation Futures Secretariate that fit with the session theme.

### Authors and Partner organizations

This session is proposed by Cowater International, in partnership with the FCDO and IDRC. SPARC is a partnership between Cowater International, ODI, Mercy Corps and the International Livestock Research Initiative.

- Our proposed speakers include:
- Joy Obando – Kenyatta University, Kenya
  - Muzzamil Abdi – SPARC, Somalia
  - Daniel Salau – Carleton University, Kenya
  - Heidi Braun – IDRC, Canada
  - Mark Redwood, Cowater International, Canada
  - Lucy Njuguna, International Livestock Research Institute

## session 804

Room 520C  
Hybrid

Teaching & Learning

### Maximizing knowledge transfer: new paradigms and online platforms for climate resilience education

There is plenty of tools, methods, solutions for climate resilience, but cities are far beyond the potential of implementation of these solutions. Also, universities' curricula are far from mainstream climate change within their programs. In this session we wish to address this gap offering an overview about the potential for climate resilience education through virtual platforms and guidelines, widening the public and maximizing knowledge transfer.

We will address the questions about which should be the core skills of the next generation of urban climate leaders? How to sustain local authorities, stakeholders and communities in integrating innovative concepts and methods in the current urban planning, design and governance practices? How to balance the need for a strong theoretical background with the acquisition of technical and practical skills? And also, is the academic system equipped to support the education of hybrid and multidisciplinary new professionals?

This knowledge exchange panel will provide in a first part some critical thoughts on education and knowledge transfer challenges. In a second part it will show some available online educational platform (i.e. the UCCRN Edu) and some guidelines to integrate climate design into planning and city management, and finally allow a workshop-like discussion from the online and in person public.

The panel brings together a set of core members from the "Urban Climate Change Research Network for Higher Education" (UCCRN\_edu, [www.uccrn.education](http://www.uccrn.education)), of the European leading project on Carbon neutral, resilient and inclusive cities "Urban Planning ready 2030" (HEU UP2030) and other sister projects in EU and US, such as HEU KNOWING and NSF City as Lab.

### Authors and Partner organisations

- Session Moderation**
- Lorenzo Chelleri, Ph.D. – Urban Resilience research Net (URNNet) at International University of Catalunya (UIC Barcelona)
- Panelists**
- Marie-Christine Therrien, École nationale d'administration publique Montréal, Québec, Canada
  - Cristina Visconti, Università di Napoli Federico II, Urban Climate Change Research Network (UCCRN)
  - Chantal Pacteau, French National Centre for Scientific Research/ Sorbonne université, Paris, France
  - Mattia F. Leone, Università di Napoli Federico II, Urban Climate Change Research Network (UCCRN)
  - Jeffrey Raven, New York institute of Technology, Urban Climate Change Research Network (UCCRN)
  - William Veerbeek, UNESCO-IHE, Delft, The Netherland

## session 607

Room 520D  
Hybrid

Limits to Adaptation

This session is jointly organised by the United Nations University’s Institute for Environment and Human Security (UNU-EHS) and Munich Re Foundation (MRF), in collaboration with the International Organisation for Migration (IOM). Together, UNU-EHS and MRF are the lead organisers of the 2023 edition of the Climate Academy on the theme of community-led relocations – to be held in September 2023 – and on which this session will build.

## Equitable and inclusive community relocation practice: Preparing together for a measure of last resort

Relocations are often described as a last resort, a measure deployed only when adaptation in place is no longer feasible. Yet, when relocations are organized under extreme time pressure – in reaction to disasters – the relocation process risks being rushed, less inclusive and equitable. This can lead to highly negative outcomes for relocating communities. So, even if one’s aim is to avoid relocation, it seems crucial to anticipate and evaluate relocation risks. This way, the relocation process can be pro-actively planned in an inclusive, context-appropriate manner, to maximise positive outcomes – should the need arise.

This tension leads to some fundamental questions. Under which conditions are relocations adaptive, or maladaptive? Can relocations be considered an adaptation measure, or do they more properly belong under loss & damages agendas, as a last resort when adaptation has failed?

This session will approach this overarching theme through the lens of relocation practice. Consequently, the session is looking for process-focused contributions on how relocations can be carried out in just, inclusive, and equitable ways. By “relocation processes”, we mean all stages from anticipating relocation risk, decision-making (including the decision not to relocate), planning, implementation, and post-relocation assessments. At each stage, a key focus is on how communities are involved. Potential session contributions include but are not limited to the following issues:

- How can relocation processes centre local knowledges, including indigenous knowledges, at all stages of decision-making, planning, and implementation?
- How can responsibilities for relocation planning and implementation be defined, negotiated, and assigned to participating stakeholders?
- How can relocations processes account for and act on diverse viewpoints within communities – up to conflicting perspectives on whether to relocate or adapt in place?
- How can relocation processes avoid reproducing marginalisation of vulnerable communities/community members and reduce pre-existing inequalities?

## Authors and Partner organizations

**The session will be led by:**

Dr. David Durand-Delacre, senior researcher in the Environment and Migration: Interactions and Choices (EMIC) section at UNU-EHS

Dr. Himanshu Shekhar, of the Vulnerability Assessment, Risk Management & Adaptive Planning Section (VARMAP) at UNU-EHS

With support from colleagues Lisa Thalheimer, Claudia Fry, and Kees van der Geest (UNU-EHS), Koko Warner (IOM) and Christian Barthelt (MRF).

## session 406

Room 520E  
Hybrid

Teaching & Learning

## Learning to work together: Principles and practices for collaborations with Indigenous and rural peoples to advance adaptation

This session invites participants to explore emerging practices that could advance transdisciplinary approaches to teaching and learning about adaptation. It will be structured as a knowledge exchange in two parts conducted in succession. Outcomes of the session will contribute to a growing community of practice that aims to strengthen the Living Framework to Guide Transdisciplinary Sustainability Researchers.

### Authors and Partner organisations

**Panel #1**

UNESCO Co-Chairs in Biocultural Diversity, Sustainability, Reconciliation, and Renewal, Drs Maureen Reed and James Robson

**Panel #2**

Indigenous and other adaptation specialists from Canada and the Global south. Panelists will include all or some of the following pending in-person ability or virtual presence.

- Laura S. Lynes, LLM, the Resilience Institute (confirmed)
- Noreen Plain Eagle, Piikani First Nation (confirmed)
- Igghsaan Samuels, PhD, South African Agriculture Research Council (confirmed)
- Mmoto Masubelele, PhD, South African National Parks (tentative)
- Gabriela Lichtenstein, PhD, Argentina National Research Council (tentative)

session 649

Room 520F  
Hybrid

Adaptation Choices

## Shaping the future of adaptation monitoring, evaluation, and learning: New insights, tools, and opportunities for overcoming challenges and constraints

December 2023 marks the end of the first global stocktake, the mechanism established to assess progress towards the long-term goals of the Paris Agreement. Monitoring evaluation, and learning (MEL) of adaptation action is fundamental to create the evidence needed to develop effective adaptation action and for informing national adaptation planning, as well as to hold all actors responsible for adaptation commitments. However, it remains methodologically and practically challenging. In many countries, MEL of adaptation action is still in its infancy. Against this background, assessing collective progress on adaptation at the global level is a huge challenge

### Authors and Partner organizations

UNFCCC Adaptation Committee  
NAP Global Network  
OECD



## session 860

Room 519B

Governance & Finance



## Assessing climate risks: What is missing and what can be done to enhance knowledge and institutional capacities in the global south

Advancing on adaptation policies and implementation demands adequate knowledge and capacities. As we look towards inclusive adaptation governance and finance it is paramount to understand what are the gaps in terms of capacities and knowledge that hinder participatory adaptation planning and implementation. Understanding knowledge needs and gaps is also key for meeting the objectives of the Paris Agreement and the NDCs implementation. For the Paris Committee on Capacity-Building (PCCB), developing countries need to enhance and count on the assessment of needs and gaps in order to increase ambition and meet the commitment under the UNFCCC. Although it has not been an easy task, assessing capacity building is necessary to understand the local context in order to put in place coherent objectives, create solid and strong proposals, to enhance access to finance, and avoid maladaptation.

This session aims to discuss the findings of a multi-country research about knowledge and capacity needs and gaps on the issue of «assessing impacts, vulnerabilities and risks of climate change, with an emphasis on gender» in the agricultural, coastal marine area, water and tourism sectors. The session also aims to deliver recommendations for research and action. The discussion will be guided by the research findings and driven by the question «What are opportunities to transform institutional capacities on adaptation planning, especially on assessing impacts, vulnerabilities and risks?». The topic contributes directly to theme 8 (Inclusive adaptation governance and finance: how do we get there?) proposed by the conference.

### Authors and Partner organizations

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Gabriela Fuentes Braeuner and Jackeline Brincker Palomo, Center for Environmental Studies and Biodiversity, Universidad del Valle de Guatemala, Guatemala

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Zo Hasina Rabemananjara,Bruno Ramamonjisoa, and Olivia Rakotondrasoa, Laboratoire de Recherches Appliquées, University of Antananarivo, Madagascar

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Felix Kalaba, Jane Kwenye, and Donald Zulu, Copperbelt University, Zambia

Research coordinators: Pilar Bueno and Ignacio Lorenzo

Steering Committee: Paula Ellinger, Emmanuel Cheo, Pablo Cabrera, Walter Ubal

Partners: Fundación Avina, FLACSO Ecuador, United Nations University (UNU-ViE), International Development Research Centre (IDRC)

## session 284

Room 518B

Teaching & Learning

### Culture and heritage-based education, training and capacity building for climate change adaptation

Culture and cultural heritage are recognised as helping shift mindsets and opening up new political horizons needed for driving sustainable climate adaptation. However, their integration into climate science and education has received limited attention. Given diverse local circumstances and priorities, existing education, training, and capacity building efforts that bridge culture and climate science have been fragmented, project-oriented and works-in-progress, to address varied emerging needs and challenges.

This session will share and discuss new and diverse educational programs and pedagogical approaches exploring integrative knowledge areas that include cultural heritage resources, such as material cultural heritage, practices and traditions, and indigenous and local knowledge that contribute to sustainable climate adaptation. It will allow the exchange of knowledge and experience on supportive multi-, inter-, and transdisciplinary learning through effective and inclusive partnerships to address cross-cutting issues and innovative pedagogical approaches.

Culture and heritage can act as catalysts for positive transformational change by connecting people to places, encouraging a sense of place and belonging, and fostering social inclusion, while accommodating integrative knowledge systems and ontological pluralism. Thus, culture and heritage can serve as powerful resources for deepening our collective knowledge, opening new creative solutions in tackling the impacts of climate change and contributing to transformational pathways.

The Paris Agreement highlighted the importance of capacity building, yet it is challenging to accommodate teaching and learning activities that are multi- and transdisciplinary, inclusive and holistic in approach in traditional high-education models. It is essential to strengthen synergies between culture and science, to advance their mutual roles in education and capacity building for climate change adaptation.

This session targets actors involved in education and capacity building for climate change adaptation across culture, heritage and the sciences, to facilitate dialogue and networking, foster knowledge exchange, experiences and practices, and innovative methods and tools that incorporate culture and heritage into teaching and learning. Professionals, administrators, policymakers, experts, academia, institutions, knowledge keepers and non-governmental organizations are invited to bring expertise from multiple scientific areas, together with the arts and humanities to share methodologies, and foster an iterative and dynamic process of mutual learning.

### Authors and Partner organizations

#### Session Organizers:

Deniz Ikiz Kaya, Eindhoven University of Technology (NL) - Susan Ross, Carleton University (CA) - Paloma Guzman, Norwegian Institute for Cultural Heritage Research (NO) - Claudine Déom, Université de Montréal (CA)

#### Speakers:

Prathijna Poonacha Kodira, Indian Institute for Human Settlements, Bengaluru, India - Ermenek Duran, One Drop, Montreal, Canada - Johanna Nalau, Griffith University, Brisbane, Australia - Manel Djemel, Université de Montréal, Montreal, Canada

## session 981

Room 518C

Nature-based solutions

### Measuring performance of NBS

TBC



session 641

Room 523

Adaptation Choices

## Building the business case for adaptation: The impacts of recent extreme weather events on Canada’s agriculture and food sector and Learning from our experiences

Canada’s climate is rapidly changing and changes are projected to intensify. Canadian producers and our agriculture and food sector are already experiencing the impacts of a changing climate and is regarded as one of the sectors most impacted by climate change. Warmer temperatures, shifting precipitation patterns, and an increase in the frequency and severity of extreme weather events (e.g. droughts, floods, hurricanes) will increase current challenges on productivity and profitability, and create new ones, such as increased crop and livestock loss, incidence of pests and diseases, and increased risk of supply chain disruptions. Additionally, the sector’s sensitivity and susceptibility to climate change can have wide-ranging effects on Canadian society, including the health and wellbeing, domestic and global food security, a thriving natural environment, and the long-term economic viability of rural communities.

Adapting to climate change is about preparing for the current and future impacts of climate change. It involves changing our activities and decisions so that we reduce the negative impacts of climate change, while taking advantage of opportunities and become more resilient. While adaptation efforts have occurred, recent climate disasters illustrate the need for more proactive and ambitious short-term and transformational adaptation action to address climate risks, improve the sector’s adaptive capacity, and enhance its climate resilience.

Agriculture and Agri-Food Canada (AAFC) will invite diverse sector partners to engage in a panel discussion to share how recent climate impacts have impacted their operations and livelihoods, such as the impacts of extreme weather events (e.g. flood, drought, hurricanes), identify lessons learned, and explore avenues for putting lessons learned into practice in order to advance adaptation efforts of the sector. By understanding the impacts and lessons learned from recent extreme weather events on agriculture and food systems, as well as what is needed to improve the sector’s adaptive capacity, the agriculture sector will be better equipped to prepare for, mitigate, respond to, and recover from hazards, risks, and consequences of disasters linked to climate change.

### Authors and Partner organizations

**Lead:** Agriculture and Agri-Food Canada (AAFC)  
**Partners:** Union Des Producteurs Agricoles (UPA)

session 691

Room 522

Adaptation Choices

Knowledge Co-production session

## The future of maladaptation research and implementation

The IPCC’s Working Group II recently concluded that at least 170 of 195 nations have included adaptation in their climate policies and planning processes, and that many planned actions are already implemented. Done right, adaptation efforts could soften the blow on billions of lives. Done wrong, they could lead to maladaptation, wasting time and money while leaving people as much or more vulnerable than before (Schipper, 2020). Maladaptation however is a tricky outcome to prevent as we don’t usually know about it until it has already materialised.

This is made more difficult because the scientific community has a poor understanding of what successful adaptation looks like (Dilling et al., 2019. While the scientific community has some knowledge of what shapes and limits adaptation, understanding of maladaptation has potentially peaked at identifying the possible drivers of maladaptation. But how can we advance the science to prevent maladaptation and identify it in real time? How can practitioners use this concept?

This session asks how we can advance our understanding of maladaptation so that it can be useful for practitioners.

Questions of relevance include:

- How can we best advance the topic of maladaptation in science?
- How has the knowledge of maladaptation been integrated into adaptation planning?
- Will the risk of maladaptation potentially prevent funders to reduce adaptation action?
- What are the effects of maladaptation in adaptation outcomes?
- How has knowledge of maladaptation influenced the role of vulnerable actors?
- Has maladaptation knowledge made an impact on how we deal with adaptation?

### Authors and Partner organizations

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session 730

Room 525

Equity & Justice

Panelists and participants will then engage in discussion on what this means for implementing Canada’s NAS, focusing on the following questions:

What additional evidence is needed to inform inclusive, equitable and Indigenous rights-based NAS implementation?

What processes and/or mechanisms must be put in place to ensure that NAS implementation meets the needs of all Canadians, particularly the most vulnerable to climate change?

What tools and approaches are needed to track progress on the equity, justice, and Indigenous rights elements of NAS implementation?

Advancing equity, justice, and Indigenous rights in adaptation through Canada’s National Adaptation Strategy - What is required for success?

Canada has committed to advancing equity and environmental justice, as well as upholding Indigenous rights, through implementation of its National Adaptation Strategy (NAS). This commitment is in line with the latest assessment report from the Intergovernmental Panel on Climate Change (IPCC) (2022), which found with high confidence that vulnerability to climate change is exacerbated by inequities arising from discrimination of the basis of gender and ethnicity, among other factors, and that this is particularly the case for Indigenous Peoples and local communities. The IPCC also asserts that “inclusive governance that prioritizes equity and justice in adaptation planning and implementation leads to more effective and sustainable adaptation outcomes” (IPCC, 2022, p. 28). Canada has an opportunity to be a leader in this area, but this relies on the processes and governance structures created to implement the NAS, as well as the outcomes that result.

This knowledge exchange session will explore different perspectives on the social dimensions of adaptation in Canada, addressing intersectional factors including gender, disability, and Indigeneity. It is organized by the International Institute for Sustainable Development (IISD), in partnership with the Disability-Inclusive Climate Action Research Programme (DICARP) at McGill University and the Community Engagement and Research Centre at the University of Regina.

The session will be organized as a roundtable discussion. Following a brief framing presentation by IISD, three speakers will set the stage for the discussion through five-minute interventions that illustrate the differentiated impacts of climate change on different groups in Canada and discuss the key principles that inform an inclusive, equitable, and Indigenous rights-based approach to adaptation.

Authors and Partner organizations

Anne Hammill, Senior Director, Resilience, International Institute for Sustainable Development (IISD) (Moderator)

Angie Dazé, Gender Equality and Social Inclusion Lead, Resilience, International Institute for Sustainable Development (IISD) (Framing Presentation)

Dr. Amber Fletcher - Associate Professor; Academic Director, Community Engagement and Research Centre, University of Regina

Dr. Sébastien Jodoin - Associate Professor, Canada Research Chair in Human Rights, Health, and the Environment &

Director of the Disability-Inclusive Climate Action Research Programme (DICARP), McGill University, Faculty of Law

Dr. Graeme Reed - Senior Policy Advisor, Assembly of First Nations

session 685

Room 524A  
Collaborative

Adaptation Choices

Critical self-reflection, positionality and transformation: A focus on adaptation action

The IPCC 6<sup>th</sup> Assessment Report sounded the warning that we have a brief and rapidly closing window to secure a liveable future in the context of climate change (IPCC, 2022). In the political arena discussions on loss and damage are ramping up, together with discussion on the limits to adaptation (Berkhout and Dow, 2022). The need for transformation is thus ever more pressing. But much of the focus on transformation has focused on objective and technical understandings of definitions of problems, and framing through particular, usually positivist knowledge systems. Another route to transformation can come subjectively from how we perceive issues.

In this session, we aim to give people within the adaptation community the opportunity to step back and critically examine and analyse (a) their own positionality in the adaptation climate space and (b) critically interrogate how this is influenced by (often implicit) assumptions about how change happens. Building on work from others (e.g. O’Brien, 2021) the aim is that greater self-reflection and humility can lead to transformations in perspectives that can then translate into innovations in the way that we collectively define, frame challenges and promote adaptation action.

To do this, we will facilitate a workshop-style session in which participants have the time and space to critically observe and reflect on their past work, identify the lenses through which they (perhaps unknowingly) approached this work, and actively consider how this knowledge might inform and shape current and future work. This is likely to raise issues around how individuals and organisations shape and respond to the configurations of the adaptation space, and the role of ethics, politics, justice and morality, among others. To stimulate the process, the organisers will give a brief overview of some of the recent work highlighting human agency in transformation, and work through some examples, illustrated by guests from the global North and South (TBC depending on confirmed attendance). Sequenced questions will then be used in a facilitated session for participants to work through individually, with the opportunity to share with the group at the end of each stage if they feel comfortable

Authors and Partner organizations

Katharine Vincent, Kulima Integrated Development Solutions

Coleen Vogel, University of the Witwatersrand

## session 933

Room 524B  
Collaborative

Teaching & Learning

### Advancing digital climate adaptation platforms to develop a climate-ready workforce

In Canada, the launch of the National Adaptation Strategy, as well as other sub-national policies, are likely to catalyze climate adaptation actions, each of which may include a complex web of actors from Indigenous, federal, provincial, territorial and local governments and the private sector. While the understanding of climate impacts is improving, the achievement of ambitious targets and goals outlined in recent strategies requires a scaling up of adaptation capacity and collaboration across a range of sectors. To meet this need, practitioners in the workforce who are well-positioned to support adaptation implementation must be able to efficiently find relevant training and educational opportunities, identify partners and peers, and quickly navigate the many websites offering information.

The focus of this Knowledge Co-production session is on the evolution of digital Climate Adaptation Platforms (CAP) and how to better fund, sustain, and position these platforms to drive access to education and training, facilitate effective peer-to-peer networks, support knowledge-brokering, and provide other key services and support.

The session will open with a series of lightning talks by the session authors Resilience by Design Lab and Climate Risk Institute, as well as each of the identified session partners. These presentations will provide an overview of the characteristics of a set of international CAPs, including key features, functionality and reflect on strengths and lessons. The session will then move to a knowledge café format to engage participants in a series of structured knowledge-generating discussions across 5-7 main themes.

### Authors and Partner organizations

#### Authoring Organizations

Climate Risk Institute.

- Cobb, P., Manager, Training Services.
- Sanders, C., Manager, Engagement and Communications
- Sparling, E. Vice President

Resilience by Design Lab, Royal Roads University.

- Cox, R., Professor and Director.
- Forssman, V., Program Manager.

#### Partner Organizations

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Jacobson, R., American Society Adaptation Professionals.

Camara, Ana-Carolina., GIZ-Brazil / ProAdapta.

## session 928

Room 524C  
Collaborative

Adaptation Choices

### Deliberating climate adaptation approaches to overcome challenges and build socio-ecological resilience: a practitioners’ workshop

The interwoven socio-ecological nature of adapting to the compounding risks associated with climate change necessitates practitioners to develop diverse solutions that span national and local levels. Rising temperatures, sea level rise, droughts, floods, and biodiversity collapse associated with climate change and rising resource extraction and development pressures, among many other issues, are affecting populations and ecosystems globally. However, adaptation and conservation solutions that work for one region may prove to be maladaptive for another if they are not contextualized to the local context.

### Authors and Partner organizations

WWF US

Luz Elisa Cervantes Valdivieso, Sr. Specialist Environment and Disaster Management

Rachael Axelrod, Climate Communities and Wildlife

Shail Joshi, Senior Program Officer—Nature-based Adaptation Solutions



session 674

Room 520A  
LAC Pavilion  
Hybrid

Indigenous Knowledge

The participants should understand the life experience of indigenous peoples regarding CC adaptation and how they become resilient. Alliances will be forged and joint tasks will be agreed to incentive interaction and joint advocacy so that the contributions and leadership of indigenous women aimed at the fulfillment of global CC goals and the conservation of biodiversity, are evident. Participants will be sensitized and committed to the conservation efforts of indigenous women, whose rights and ways of life are threatened by lack of information on CC and the devalorization of their traditional life systems.

Shared wisdoms: a joint dialogue on the contributions of Chiquitano women in Bolivia and Cree communities in Canada to the global goals on climate change (CC) and the conservation of biodiversity

Though indigenous peoples’ significantly contribute to the preservation of forests, the brunt of the negative impact of CC is heavier on them. As a result, indigenous women and youth see their workload and exposure to gender based violence (GBV) increased, and their livelihoods affected . Floods, droughts, wildfires, plagues and new diseases, are some of the issues to which they have to adapt.

In Chiquitania, in Bolivia, indigenous women and youth currently lead innovative initiatives for the processing of non-timber resources that preserve their ecosystem and generate income. The processing of honey from native bees rescued from wildfires is restoring the integrality and functionality of their forest. This and other initiatives help reduce deforestation, and improve the quality of life and the position of women within their communities. As their sustainable activities grow, women acquire new skills, they gain recognition as leaders, demand the fulfillment of their rights, and question the patriarchal system that makes them invisible and ignores their needs.

In Canada, Indigenous partners aim to achieve self-identified food sovereignty goals, addressing the underlying issues impacting their ability to respond to their own needs for healthy, culturally adapted Indigenous foods. Addressing CC, Food Forests in Saskatchewan & Alberta aspire to transform food systems in a holistic way. Through small-scale agroecology, the Cree communities are working to create systems that will sustain not only for the present, but for future generations.

Within the framework of UNDRIP, the event will foster the sharing of wisdom and dialogue on how indigenous peoples; particularly, indigenous women in Bolivia and Canada, adapt and become more resilient to CC. The dialogue proposed is based on a joint reflection of their contributions, and the challenges they face in the fulfillment of global CC goals and the preservation of biodiversity.

The event starts with the testimonies of two indigenous women: one from Canada and one from Bolivia. In their own words, they will share their experience and make evident the issues that either limit or foster their capacity to adapt. Their testimonies will be followed by two technical presentations, by Patricia Patiño from APCOB , and Sydney Richards from CFTC. A World Café Session involving the audience and a technical panel will afterwards reflect on the questions and dilemmas raised. IT tools will be used to foster the active engagement of the public during the panel discussion. Finally, the audience will participate in a short but meaningful ceremony aimed at consolidating a shared vision for the future.

Authors and Partner organizations

**Authors:** Patricia Patiño and Marcela Vallejos (CECI); Sydney Richards(CFTC)  
**Partners:** Apoyo al Campesino Indígena Boliviano (APCOB); Representatives of the Chiquitano people in the Lomerio, Monte Verde and Zapocó; Beardy’s & Okemasis Cree Nation; Ahtahkakoop Cree Nation.

session 968

Room 520B  
Africa Pavilion  
Hybrid

Adaptation Choices

The role of local and indigenous knowledge systems in climate change adaptation: Case studies

Despite increasing recognition of the importance of indigenous knowledge in achieving climate change resilience when designing and implementing interventions, indigenous knowledge and approaches are sometimes underemphasized and yet their integration presents fertile ground for community-based and driven climate adaptation and mitigation. The session will explore case studies from Southern Africa, Nigeria, Kenya and Algeria.

Authors and Partner organizations

Quiven Ebicha, Solidaridad, Mozambique  
Anthony Akpan, University of Calabar, Nigeria  
Hamid Hachelafi, University of Oran  
Oscar Lino, Kenya Red Cross



session 704

Room 520C  
Hybrid

Equity & Justice

Catalysing adaptation through early career research: Needs, experiences, futures

The depth and breadth of adaptation-related research is at unprecedented levels, demonstrated by the weight of evidence synthesised by the recent IPCC sixth assessment report. The opportunities for early career researchers (ECRs) have expanded accordingly and significant numbers of ECRs are expected to be attending the AF2023 conference.

ECRs face a range of barriers and challenges across all subjects, but these are exacerbated in the context of adaptation in at least three key areas. Firstly, adaptation science requires researchers to look outside as well as within adaptation scholarship and recognise the interdisciplinary nature of research contexts (Hein et al., 2018). Second, research institutions in the most vulnerable areas and populations are often the most resource constrained and southern ECR's are typically more isolated compared with their contemporaries in the north (Vincent & Cundill, 2022) leading to research gaps and research capacity deficits being filled by researchers external to those places and contexts (Mustelin et al., 2013). And third, the negative equity and justice aspects of adaptation science scholarship that disadvantage ECRs in resource-constrained contexts (Schipper et al. 2020). Yet, ECRs are commonly at the cutting-edge of adaptation science and often have often key insights that could progress the field forward. Hence, closer collaboration and dialogue with and within ECRs is needed to explore both the constraints and barriers they face, and the opportunities and insights that they have in developing the future field of adaptation science.

Authors and Partner organizations

Moderators

Thomas Tanner (SOAS University of London, UK)  
Blane Harvey (McGill University, Canada)

Presenters

Mzime Ndebele-Murisa (START Secretariat, Zimbabwe)  
George Lakey (Association of Commonwealth Universities, UK) (online)  
Estefania Arteaga (Griffith University, Australia)  
Daniel Ugwu (David Umahi Federal University of Health Sciences, Nigeria (online))  
Jon Padgham (START Secretariat, USA)

Other ECR participants TBC following Monday's academic writing masterclass

room 520D E F

Side event

session 829

Room 519A

Adaptation Choices

Innovating targets to erduce wildfire, flood & extreme heat risk in Canada

Canadians are already seeing and feeling the effects of our changing climate – including more frequent and intense floods, wildfires, hurricanes and hailstorms. 2022 was the third most costly year on record for climate-related disasters costing over \$3.1B in insured losses alone. Canada, like many countries, is becoming a riskier place to live, work and insure. In response to this threat, the Government of Canada introduced a National Adaptation Strategy (NAS) – the first of its kind in the country – that ingrains clear targets into a federal action plan that is to measure progress every five years.

Climate Proof Canada hailed the NAS as “a bold step forward by delivering a strategy with world-leading targets and clear goals that will drive necessary progress on adapting to the worst impacts of climate change.”

The NAS draws on significant policy expertise from the advisory tables convened by the federal government, where Climate Proof Canada played a significant role. To drive progress the NAS proposes a national action plan, renewable every five years, with clear targets across the five strategy areas. The NAS establishes long-term transformational goals to address the widespread effects of climate change AND sets near-term targets to reduce disaster risk, specifically Canada’s vulnerability and exposure to acute and rapidly intensifying severe weather.

National targets can help focus adaptation effort on disaster risk reduction. Awareness of the effects of climate change has been amplified in Canada by the recent floods, wildfires and heat waves that damaged critical infrastructure, destroyed personal property, claimed lives, and affected health and wellbeing.

Participants

Climate Proof Canada is a coalition of Canadian business representatives, disaster relief organizations, municipalities, indigenous organizations, environmental NGOs, and think tanks that believes Canada must prepare for the present and growing effects of climate change through building a more disaster-resilient country.

Climate Proof Canada will be represented by Craig Stewart of Insurance Bureau of Canada as well as representatives from these member organizations:

- Canadian Red Cross
- Federation of Canadian Municipalities
- Canadian Association of Physicians for the Environment
- International Institute for Sustainable Development



session 560

Room 518A

Limits to Adaptation

Climate justice is central to formulating a clear assessment of the potential for planned relocation within a portfolio of sustainable and potentially progressive and transformative adaptations to climate change. We reflect on what this means for actions by different stakeholders, and what are the strengths and weaknesses of current policy frameworks in the context of justice for climate-induced planned relocation.

Climate justice perspectives on planned relocation

Planned relocations are often deployed as a measure of last resort after in-place adaptation and resilience-building measures have been exhausted. But as climate change impacts become more frequent and intense, authorities and communities have increasingly been seeking to minimize harm to people living in unsafe places by moving them to areas with lower exposure. These recent relocations build on decades of development-related displacement, moving settlements and people to make way for urban development, dams and roads. These initiatives have, however, been widely shown to exacerbate inequalities, leading to unjust and uncertain outcomes among relocated communities without legitimate processes.

Processes of planned relocation raise questions about the scope of local and national governments’ responsibility for helping people to move out of harm’s way and settle in a safer location. Institutional responses at national level have been facilitating the movement of vulnerable populations out of at-risk areas, but there is an ongoing uncertainty as to whether these relocation practices do in fact promote equality, fairness and resilience in the affected communities.

In this session, we consider the process of planned relocation and issues of climate justice across stakeholder groups and consider government, media and resident framings and experience of relocation processes. Drawing on empirical studies, we explore the types of institutional and governance innovations required to move from relocation as ad hoc reactive solutions to anticipatory and managed adaptation strategies, we examine the role of the media in shaping discourses on planned relocation and we provide insights into policy design and implementation of planned relocation in response to environmental stressors. We present and put in dialogue case studies from both the Global North (Italy) and the Global South (Bangladesh and India) and focus on different drivers of relocation, including coastal and riverine flooding, coastal erosion and cyclones.

Authors and Partner organizations

**Panel co-chairs:** Ricardo Safra de Campos (University of Exeter); Tara Quinn (Maynooth University)

**Discussant:** AR Siders (University of Delaware)

Presenters and talks

Tara Quinn (Maynooth University): Fair outcomes in planned relocation: insights from senses of place research

Elisa Calliari (International Institute for Applied Systems Analysis): Governing planned relocation in the context of flood risk: policy formation and implementation in Northern Italy

Nihal Ranjit (Indian Institute for Human Settlements): Media portrayals of cyclones and planned relocation in coastal India

Oana Stefancu (University of Exeter) & Ricardo Safra de Campos (University of Exeter): Just Planned Relocation in Bangladesh: disentangling policy, practice and multistakeholder perspectives

Tasneem Siddiqui (University of Dhaka and Refugee and Migratory Movements Research Unit): Planned Relocation in the National Action Plan of Bangladesh (2022-2042)

session 152

Room 519B

Governance & Finance

Valuation of climate impacts and extreme climate events in Canada: benefits, risks and how it incentivise and finance adaptation action

The goal of this knowledge exchange session is twofold: (1) to characterize the direct and indirect costs from climate change impacts and (2) to discuss possible solutions to incentivise and finance adaptation action. As climate induced extreme weather events rapidly increase in frequency and intensity and as slow onset climate changes progress and accelerate, impacts and costs will continue to grow. Policy makers need to better understand the costs of inaction and the benefits of adaptation to inform adaptation decision making. However, costing climate change impacts and adaptation benefits has limitations and risks—modelling is complex, data is scarce, uncertainty is high, and many costs and benefits cannot be quantified. Nonetheless, delaying adaptation decisions and investments while awaiting perfect information is not an option. The session will highlight important developments in the analysis of the costs and benefits of adaptation and their use in decision making and in funding models.

The speakers will present climate impacts and adaptation costing and economic analysis applications to infrastructure, real estate, human health, financial systems and national economies. They will also discuss mechanisms for incentivizing and financing adaptation that can be informed by better understanding of the costs of impacts and the benefits of adaptation.

Authors and Partner organizations

**Session master:** Julien Bourque Canadian Climate Institute

**First speaker:** Charles-Antoine Gosselin, WSP Canada

**Second speaker:** Ryan Ness, Canadian Climate Institute

**Third speaker:** Dr. Jesse Gourevitch, Environmental Defence Fund (United States)

**Fourth speaker:** Jean-Philippe Meloche, Université de Montréal

## session 912

Room 518B

### Indigenous Knowledge

We will bring together leading researchers and practitioners from throughout the southwestern US and beyond to provide thought-provoking insight into each of the timely and highly relevant topics we will examine in this session.

## Indigenous adaptation leadership, action and research: Cultivating multi-level relationships and recognizing multidimensional sovereignty

Indigenous knowledge systems, such as traditional ecological knowledge, contain climate observations and adaptation strategies reaching back millennia. These include methods for caring for our natural ecosystems, resources and traditional cultures. Although Indigenous Peoples and Native Nations are on the front lines of climate change impacts, they are also leading the way in many innovative cultural-based adaptation actions, such as in drought resilient agriculture, integrated soil-water management practices, and burning practices. Cultural burning, a form of low-intensity understory-burning that is used to increase ecosystem and cultural resilience, is especially important for food and material availability that support traditional lifeways.

Fire has always been an important component of life for many North American Indigenous Peoples and across the globe. Traditional wisdom instructs that rather than suppressing fire, we should seek to have a good, respectful relationship with fire. Yet, during the century-long policy of fire suppression that contributed to the cascade of detrimental impacts on both ecosystems and people, Indigenous-led burning practices also were severely hindered. Reconciliation of these policies with traditional fire management requires building trust to foster knowledge development and exchange with Indigenous partners at various structural levels. Indigenous-led leadership is critical to facilitating a process across governance levels in support of policy changes.

At the same time, there is growing global recognition among researchers and resource managers of the value of Indigenous and local knowledges in leading and enhancing the human capacity to adapt to climate change. However, we face historical inequities that hinder cross-cultural knowledge exchange and innovation. This includes a tendency towards extractive research that accesses Indigenous knowledges without regarding Indigenous decision-making needs, sovereignty, or rights for self-determination.

## Authors and Partner organizations

**Session Moderator and Facilitators:** Carolyn A.F. Enquist (Session POC), Southwest Climate Adaptation Science Center (SW CASC), U.S. Geological Survey (USGS); Anissa McKenna, American Indian Higher Education Consortium, SW CASC  
Authors include SW CASC Principal Investigators and Associates: M. Adams, S. Carroll, S. Natonabah, N. Fontana, R. Goode, M. Johnson, D. Martinez, R. Martinez, B. Middleton-Manning, C. Oraftik, and others TBD (confirmations will be made should proposal be accepted)

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University of Kansas

## session 971

Room 518C

### Nature-based solutions

## Shaping the future of Nature-based Solutions for Adaptation

Nature-based Solutions (NbS) encompass a broad range of policies and practices aimed at leveraging nature to address global and societal challenges through the protection, management, and restoration of ecosystems (Cohen-Shacham et al., 2019). However, there are many obstacles to the implementation and scalability of NbS to tackle issues such as climate change, food security, natural disasters, and biodiversity loss. These include addressing current knowledge and policy gaps, advancing effective governance and coordination, and ensuring equitable engagement and fair distribution of costs and benefits. NbS are fundamentally place-based, necessitating the engagement of all relevant stakeholders, including Indigenous Peoples and local communities (Seddon et al., 2021). Additionally, climate change threatens the health and functioning of ecosystems and could impair their ability to act as NbS in the future (Seddon et al., 2020). Integrating NbS into planning and decision-making processes is critical to ensure their long-term effectiveness in harnessing co-benefits for both people and nature.

To advance this important dialogue with this conservation community, Parks Canada’s Climate Change Science & Advisory Team, within the Office of the Chief Ecosystem Scientist, proposes a knowledge-sharing session centered around ‘Shaping the Future of Nature-based Solutions for Adaptation.’ This session will bring together presenters from various organizations and institutions to share their experiences and insights from both theory and practice. The session will comprise a series of short presentations and end with a 30-minute panel discussion, focusing on identifying pathways forward to fully realizing the potential of NbS for the climate crisis and other global concerns. We aim to highlight the importance of inclusivity, equity, and engagement in the application of NbS to build a more sustainable and resilient future for our planet.

## Participants

Parks Canada



## session 713

Room 523

Adaptation Choices

### Adaptive creation and disruptive reorientation: Food systems innovation for adaptation

Global campaigns, including AIM4Climate, ClimateShot, and Glasgow Agriculture Breakthrough, have brought together hundreds of stakeholders behind the need to innovate fast and differently to transform food systems under a changing climate. The innovation lever of the UN Food Systems Summit was a clear signal of the role of innovation.

But as the weighing of results of COP27 comes to an end, and the world turns to COP28 in the UAE, we must admit that our current innovation system is not delivering innovation at the scale and pace that we need to combat both climate change, nor its threats to our food system. Especially on adaptation, we need to make more happen, and urgently so. As highlighted in the IPCC 6th Assessment Report (WG II), current adaptation options will not deal with 2°C+ global temperatures.[1] Institutional, financial, and social bottlenecks limit the adaptation innovation we need. [2]

In this session, we will draw out key lessons around research and innovation for a food systems transformation, focussing on accelerating adaptive creation and disruptive reorientation in adaptation, linking it directly to the conference theme of "Time to innovate: Adapting Together." Building on those key lessons, the session will facilitate knowledge exchange by bringing together research and government, practitioners, civil society, private sector, international organizations, and foundations. As such, the session aims to identify examples and practical ideas for adaptive creation and disruptive reorientation in food systems innovation.

Essential to this exchange is a diverse and balanced group of experts, as well as plenty of time for open discussion. Hence, the format of the proposed session includes a brief context-setting presentation, highlighting the key opportunities for accelerating adaptation in food systems through innovation. This will be followed by a round of 'firestarter' pitches from experts on 'the most urgent actions/reorientation in innovation for accelerating adaptation', which will bring a mix in terms of gender, age and perspective. These will form the starting point for a roundtable to share experiences and ideas. We hope to emerge from this session with a recognition of the need for disruptive reorientation in food systems innovation, as well as some consensus around the three pitches.

#### Authors and Partner organisations

Alison Rose, Columbia University

Ana Maria Loboguerrero, Alliance of Bioversity and CIAT

Jessica Fanzo, Columbia Climate School

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## session 498

Room 522

Governance & Finance

### Strengthening supply chain resilience and risk ownership in the face of transboundary climate impacts on trade

Strengthening the climate resilience of supply chains has become subject of strong interest among governments and businesses across the world – particularly in the wake of the rising frequency and severity of extreme weather in recent years. However, addressing the complex and systemic risks from climate change is a difficult task as it requires close cooperation between value chain actors in local communities, businesses, public authorities, and scientific enterprise. While there is a growing body of evidence canvassing how countries around the world are exposed to the cross-border effects of climatic drivers, there remains significant knowledge gaps about the risk exposure, vulnerabilities and capabilities of governments and businesses to manage these risks. Moreover, comprehensive risk management strategies are largely absent and misguided maladaptation could exacerbate the consequences of climate change for vulnerable countries and people.

This session will draw on emerging and important insights from several areas of work on this subject, including GIZ and GEPA's work on the implications of climate change on fair-trade value chains and potential solutions of how to address them, the UN Global Compact Think Lab's work on just transition and supply chain resilience, and more in-depth assessments by the Irish Environmental Protection Agency, ICARUS and Maynooth University on transboundary climate risks and potential impact for Ireland. Together, the insights emerging from these findings provide a compelling overview of transboundary climate risks and their consequences on both global and local economies, as well as highlight the barriers and opportunities in time of pressing policy demands.

The session organisers invite participants to explore and discuss the interlinkages and shared risks for value chain actors, main barriers and potential opportunities and concrete approaches for solutions to climate-proof a supply chain.

#### Authors and Partner organisations

Stockholm Environment Institute (SEI) / Adaptation Without Borders

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

Global Shea Alliance

Irish Climate Change Advisory Council Secretariat and Irish Climate Analysis and Research UnitS (ICARUS) at Maynooth University



session 830

Room 525

Equity & Justice

Transformative adaptation: Navigating between rhetoric and reality

The IPCC defines transformational adaptation as, “adaptation that changes the fundamental attributes of a social-ecological system in anticipation of climate change and its impacts” (IPCC, 2022). The idea permeates the IPCC’s approach toward the solution space for climate change, and pathways toward higher climate resilient development are based on a transformational approach to adaptation. But it is also clear that transformation is not an easy or even explicit choice (Schipper et al, 2020). This leaves policymakers to confront the question of how such a complex idea can actually be implemented.

Part of the difficulty is that there is no agreement on what transformative adaptation means or entails (Blythe et al., 2018), thus driving efforts to better define and implement it (Lonsdale, 2021). The relationship between incremental and transformative approaches has been paramount. Some scholars view transformative and incremental adaptation as two ends of a spectrum (Moser and Ekstrom, 2010; Thornton and Manasfi, 2010). Incremental and transformative adaptation may also alternate over a longer adaptation cycle (Park et al., 2012). Meanwhile, some scholars assert that transformative and incremental change are decoupled altogether, requiring a paradigm shift that dismantles systems of marginalization, exploitation, and oppression (Warner and Kuzdas, 2017). However, such conceptual advances remain theoretical without an examination of how transformative adaptation happens in practice.

A recent review of adaptation interventions concludes that “the overall transformative potential of adaptations documented in the academic literature across most global regions and sectors is low” (Berrang-Ford et al. 2021: 993). It also finds that most adaptations are incremental and thus unable to effectively address the root causes of vulnerability to climate change (Vermeulen et al. 2021, Singh et al. 2022). Transformation faces a number of practical barriers, including tokenism, uncertainty of climate impacts and adaptation benefits, path dependencies in governance systems, elites’ resistance to change, high costs of transformational measures, a dominant focus on the short rather than medium term, and risk-aversion among marginalized groups and individuals who could potentially gain the most from transformation (Kates et al. 2023, de Rosa et al. 2022, Deubelli & Mechler 2021, Singh et al. 2022).

This knowledge-sharing session aims to synthesize scholarly, practitioner, and policy perspectives on transformative adaptation and aligns with the Conference Theme “Who wins, who loses, who decides: Equity & justice in adaptation.” The four speakers seek to build on their research experiences in Latin America, Asia, and West Africa by inviting audience insights about the prospects and pitfalls of transformative adaptation. The session therefore divides time equally between oral presentations (45 minutes for three papers) and open dialogue between speakers and attendees (45 minutes). The papers provide empirical data, conceptual challenges, and pressing questions that will form the scaffolding for interaction among participants. Dr. Arame Tall, World Bank Senior Adaptation and Resilience Specialist, will facilitate discussion. We are enthusiastic to generate ideas among participants about examples of and opportunities for just transformative adaptation. The key outcome of the session will be documenting these cases and identifying important next steps for research and action on transformative adaptation.

Authors and Partner organisations

Kimberley Anh Thomas, Temple University; Meg Mills-Novoa, University of California, Berkeley; Michael Mikulewicz, State University of New York College of Environmental Science and Forestry; Lisa Schipper, University of Bonn

session 506

Room 524A  
Collaborative

Adaptation Choices

Unlocking Adaptation Analytics and Tools: Stocktake and What’s ahead

In this session, AF2023 participants will discuss the tools that we have, the ones we need, and the channels available to make what we know about adaptation more easily available for global, national, and local decision-making. The event will be divided into two blocs. The first bloc will present a set of tools that successfully bridge scientific developments with end users. The second one will compile other examples provided by participants, as well as questions that need to be prioritized in adaptation research and ways in which both can inform ongoing global processes. The workshop will be held in a hybrid format, with options for speakers and participants to join the room via Zoom or similar platforms and engage on discussion tables through Miro.

The context for this session is that while scientific and economic understanding of adaptation has significantly increased in the last decade, the accessibility and usability of this knowledge are still limited and unequal worldwide. Over 50% of all adaptation-related academic publications were made after 2016, with growing literature referencing resilience, vulnerability, and disaster risk reduction (Nalau & Verrall, 2021). Much of this work is reflected in the WGII-AR6, which showcases a series of innovations in assessing, addressing, and monitoring adaptation needs and solutions (IPCC, 2022). However, such innovations are often not incorporated into decision-making support tools that are accessible and scalable to national and subnational authorities. Translating knowledge into practical tools is important for the capacity building and technology transfer requests from developing countries (UNFCCC - Standing Committee on Finance , 2021), including supporting the formulation of NAPs (UNFCCC LDC EXPERT GROUP, 2022) and the adaptation sections of NDCs.

Authors and Partner organisations

This session is organized by UNU-EHS (United Nations University – Institute for Environment and Human Safety), SOAS University of London , WRI (World Resources Institute), the African Climate & Development Institute at the University of Cape Town, and MCII (the Munich Climate Insurance Initiative). The specific authors will be confirmed upon acceptance.



session 39

Room 524B  
Collaborative

Indigenous Knowledge

Moderator: Fiona Warren, Knowledge Assessment Manager at Natural Resources Canada

Incorporating Indigenous knowledge in assessments of climate change impacts and adaptation

International and national assessments on climate change impacts and adaptation have conventionally drawn primarily from scientific and peer-reviewed literature. In recent years, significant efforts have been made to expand the knowledge base that assessments draw from to include broader forms of knowledge, including Indigenous Knowledge.

Approaches have included delivering training to author teams early in the process; engaging Indigenous scholars as authors and reviewers; highlighting examples and case studies of Indigenous-led adaptation initiatives; and developing entire sections, chapters, and/or reports focused exclusively on Indigenous Knowledge and perspectives with respect to climate change impacts and adaptation.

While these approaches have improved the inclusion of Indigenous Knowledge in assessments, it is important to take stock of lessons learned in terms of what worked well and what could be improved.

- Different approaches that have been used to incorporate Indigenous Knowledge into recent national and international assessments, including Canada’s latest National Assessment, the Fifth U.S. National Assessment, and the IPCC’s Sixth Assessment Reports;
- Experiences, perspectives, and lessons learned from authors and others involved in recent national and international assessments; and
- Co-generating new ideas and approaches that could be considered for future assessments.

Authors, Discussants, PO and Contributors

Fiona Warren, Knowledge Assessment Manager, Climate Change Impacts and Adaptation Division, Natural Resources Canada  
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Deborah McGregor, Canada Research Chair in Indigenous Environmental Justice and Associate Professor at York University (Contributing Author to the North America chapter of the IPCC WGII AR6 report and Contributing Author to the Indigenous Report of Canada’s National Assessment)  
Graeme Reed, Post-doctoral fellow and Associate at York University’s Centre for Indigenous Knowledges and Languages (Co-lead for the Indigenous Report of Canada’s National Assessment)  
Kristin Walsh, Science Assessment Officer, Climate Change Impacts and Adaptation Division, Natural Resources Canada

session 115

Room 524C  
Collaborative

Adaptation Choices

Scaling Up the Implementation of Community-Based Adaptation: Enablers and the way forward

Join us for a dynamic and impactful knowledge co-production session on scaling up Community-Based Adaptation (CBA), a critical strategy for building resilience to climate change. This session, organized by CARE, FANRPAN, IISD and IUCN, is a unique opportunity for you to actively contribute to the future of CBA initiatives and to help shape the “CBA SCALE Southern Africa+” project, a major initiative for Southern Africa, funded by the International Climate Initiative of the German government.

**Background:**  
Community-based adaptation (CBA) is gaining prominence as a critical strategy for building resilience to climate change. The Intergovernmental Panel on Climate Change’s (IPCC) 2022 report recognizes the potential of CBA when it’s thoughtfully designed, contextually sensitive, and inclusive of marginalized groups. In addition, more than 100 diverse organizations, including governments and think tanks, have endorsed the Principles for Locally Led Adaptation, further encouraging the adoption of CBA.

**Challenges:**  
Despite the momentum, widespread implementation of CBA remains a challenge. Many initiatives operate on a small scale, providing local benefits but lacking the structure for sustained implementation. Bridging the gap between national policies and community realities remains a major hurdle. Subnational governments, as critical intermediaries, often lack the resources to facilitate climate-resilient community development.

**Our session:**  
Our ninety-minute session on collaborative knowledge co-production will explore catalysts for scaling up CBA using an inclusive, gender responsive, and nature-based approach. We invite you to actively engage in discussions around key issues such as governance mechanisms, gender equality and social inclusion, and documentation of CBA at the local level to inform national level actions. The session will use a knowledge café format to facilitate discussions and share insights.

Expected outcomes include a deeper understanding of enabling factors for CBA implementation at scale and practical strategies to achieve them.

The session will be facilitated by Stefan Mielke (CARE Germany) and Angie Dazé (IISD).

Authors and Partner organisations

**Lead organisation:**  
CARE Germany  
**Partner organisations:**  
Food, Agriculture and Natural Resources Policy Analysis Network (FANRPAN)  
International Institute for Sustainable Development (IISD)  
International Union for Conservation of Nature (IUCN)

session 752

Room 520A  
LAC Pavilion  
Hybrid

Governance & Finance

## Climate risk and vulnerabilities assessments for adaptation planning: Practical approaches and lessons learned from Latin America and the Caribbean

The National Adaptation Plan (NAP) initiatives seek to identify medium and long-term adaptation needs, informed by the latest climate data and research. Climate risk and vulnerabilities assessments are key factors to reduce vulnerability by building adaptive capacity and resilience. Countries utilize the NAP to develop, update or improve the adaptation elements of their planning instruments (at national and subnational levels). In Latin America and the Caribbean, the UN Environment supports the implementation of the NAP projects in Costa Rica, the Dominican Republic and Honduras. In these countries, climate risk assessments are performed and once vulnerabilities to climate change have been identified, the NAP process develops strategies to address them. However, integrating the results of these assessments into new and existing policies, especially development strategies, is a difficult challenge to address. This is particularly noticeable when translating risk information to vulnerable communities and populations and stakeholders.

To overcome this challenge, different perspectives and spatial and temporal scales will be discussed from the experience of the NAPs in Costa Rica, Dominican Republic and Honduras. These NAPs have worked at the subnational level (Costa Rica), promoted the updating of public policies at the national level (Dominican Republic) and supported the development of the conceptual framework of the adaptation architecture (Honduras). These experiences allow discussion of the effective applicability of risk and vulnerability assessments. This includes determining what factors enable or hinder the inclusion of risk assessment in planning instruments. In particular, the integral consideration of disaster risk reduction strategies and national adaptation objectives is discussed.

The outcome for this session is a knowledge exchange originating from various experiences, driven by different factors and contexts, to collectively formulate innovative ideas which guide policy makers, practitioners and researchers on how to make climate change adaptation efforts effective, inclusive and adaptive themselves, taking into account the multiple aspects that inform climate risk management. Technical resources, capacity building and research needs will be proposed to ensure a transformative approach to adaptation.

### Authors and Partner organisations

- NAP Costa Rica
- NAP Dominican Republic
- NAP Honduras
- United Nations Environment Programme and Green Climate Fund

session 969

Room 520B  
Africa Pavilion  
Hybrid

Indigenous Knowledge

## Sectoral and placed-based adaptation challenges and solutions in South Africa, Ghana, Kenya, Senegal and Benin.

This session looks at adaptation challenges from a variety of entry points, including the development of an adaptation plan for the fisheries sector in St-Louis, Senegal, the design of approaches to deal with critical drought periods in the Sahel, and choice of adaptation strategies for rice producers in Benin. Ensuring that the voices and needs of marginalized people are acknowledged is a theme that runs throughout the session, as well the need to identify lessons that could lead toward more equitable and transformative future adaptation projects.

### Authors and Partner organizations

- Prof Sheona Shackleton, African Climate & Development Initiative, University of Cape Town & Dr Nadine Methner African Climate & Development Initiative, University of Cape Town
- Aminata Diallo, Centre de suivi écologique, Sénégal
- Raymond Kabo, Université Laval
- George Zoundji, Université Nationale d'Agriculture, Porto-Novo République du Bénin





session 778

Room 520C  
Hybrid

Equity & Justice

Personal-political climate change vulnerability: A knowledge exchange about lived experiences of vulnerability

Vulnerability – defined as the susceptibility to or capacity to cope with the adverse effects of climate change - is one of the core components that determines the severity of risks. It is also a critical concept for understanding the uneven impacts of climate change and identifying effective responses to these impacts such as adaptation initiatives (Adger 2006). Thus, how vulnerability is conceptualized and measured determines which adaptation interventions are viable, where they are implemented, and for whom (Huq and Burton 2003; O'Brien et al. 2007) with major implications for communities on the frontlines of global change.

Currently, understandings of vulnerability are often limited to discrete, quantifiable, and externally defined biophysical and socio-economic variables, which privilege externally-determined theories of vulnerabilities and more technocratic assessments (Eriksen et al. 2021; Mills-Novoa et al. 2020; Goldman, Turner, and Daly 2018). By contrast, the emerging concept of personal-political vulnerability recentres the experiences of affected communities and individuals, focusing on peoples' everyday lived personal, emotional, existential and spiritual experiences of climate change vulnerability (Eriksen 2022).

In this knowledge exchange session, we will bring together scientists, practitioners, and policymakers to explore more embodied, relational, and compassionate understandings of climate change vulnerability and the potential for these understandings to generate more transformative adaptation.

Authors and Partner organisations

Chairs:

- Siri Eriksen, Norwegian University of Life Sciences, Norway
- Elisabeth Gilmore, Carleton University, Canada
- Megan Mills-Novoa, University of California, Berkeley, US

Panelists:

- Lisa Schipper, Bonn University, Germany
- Debora Ley, Economic Commission for Latin America and the Caribbean, Mexico
- Sherilee Harper, University of Alberta, Canada
- Michael Mikulewicz, SUNY College of Environmental Science & Forestry, New York
- Luis Fernandez-Carril, Instituto Tecnológico y de Estudios Superiores de Monterrey, Mexico

session 285

Room 520D  
Hybrid

Governance & Finance

All eyers on 'My Climate Risk': Q-storming towards collective pathways to adaptation action, from local to global

A new approach that synthesises cross-disciplinary insight and information is needed to address the adaptation challenges of the climate emergency. This requires forward-looking analysis based on integrated data and evidence, and a transformation in how natural and social scientists work alongside counterparts in the government, non-government and community sectors.

This hybrid 'Q-storming' session is designed to bring together representatives from all these communities, to explore how we can bridge science and socio-political action, addressing multiple risks while responding to local adaptation needs. It will draw on the break-through approach of a new World Climate Research Programme (WCRP) Lighthouse Activity, entitled 'My Climate Risk' (MCR).The title reflects the need to embed climate risk within its unique local and social context. Eight WCRP MCR hubs have been established globally and are going 'broader and deeper' in their work with local counterparts to assess risk and implement credible and effective climate actions. Examples will be presented as part of the Q-storming session.

Q-storming is designed to come up with well-stated questions and problem formulations, not easy answers. To reach actionable solutions, we need first to identify obstacles, then map out local pathways to overcome them. Our virtual and in-person colleagues will contribute to this process, following short case-study presentations. The session builds on our AF2018 Q-Storm experience and introduces the use of Facilitated Q-Storming Tables using Mural Boards.

Participants

- Prof. Rosalind Cornforth, Walker Institute, University of Reading, UK
- Dr. Celia Petty, Walker Institute, University of Reading, UK
- Prof. Abdou, AGRHYMET, Niger
- Prof. Sanoussi Atta, AGRHYMET, Niger
- Dr. Chi Huyen Truong, Himalayan University Consortium, ICIMOD, Nepal
- Prof. Amadou Gaye, University of Cheikh Anta Diop University, Dakar
- Prof. Iain Stewart, Royal Scientific Society, Jordan
- Dr. Ruba Ajjour, Royal Scientific Society, Jordan
- Prof. Ted Shepherd, Co-Chair, "My Climate Risk" Lighthouse Activity, World Climate Research Programme / Department of Meteorology, University of Reading, UK
- Prof. Regina Rodrigues, Co-Chair, "My Climate Risk" Lighthouse Activity, World Climate Research Programme / Universidade Federal de Santa Catarina, Brazil
- Dr. Narelle Van Der Wel, My Climate Risk, World Climate Research Programme, Switzerland

room 520E F

Side event



## session 124

Room 519A

Governance & Finance

### Adapting to Transboundary Climate Risks: Regional Perspectives and Actions

In our interconnected world, the impacts of climate change, adaptation or mitigation actions within one country can create risks to food security, trade and economic sectors in another - and can influence the adaptation options of other countries. We call these, collectively, ‘transboundary climate risks’ (TCRs).

Scientific evidence, as summarised in IPCC assessments, has long recognised that climate change impacts could cross national boundaries. However, while multi-country mitigation efforts were established through the United Nations Framework Convention on Climate Change, coordinated international action on adaptation has been slower: it has historically been treated as a local to national concern. Momentum is growing to explicitly investigate not only the transboundary risks associated with climate change, but also risks resulting from adaptation at different scales.

This knowledge exchange session explores the implications of TCRs for adaptation planning, and the role that regional organisations can play in strengthening cooperation on adaptation and managing cross-border and cascading climate risks through regional adaptation plans. It exchanges knowledge about policy and actions to manage TCRs unfolding in the Sahel and in Europe, as well as other regions around the world. The session will do this by drawing on the experiences of three initiatives - the programme Supporting Pastoralism and Agriculture in Recurrent and Protracted Crises (SPARC), the project Cascading Climate Risks: Towards Adaptive and Resilient European Societies (CASCADES) and the global partnership Adaptation Without Borders (AWB) – as well as knowledge exchange with the audience.

#### Authors and Partner organisations

Sarah Opitz-Stapleton (session organiser and chair: ODI and SPARC)

Emmanuel Seck (presenting author: ENDA and SPARC)

Katy Harris (presenting author: SEI and AWB)

Christopher Reyner (presenting author: Potsdam Institute and CASCADES)

## session 948

Room 518A

Limits to Adaptation

### Migration and habitability issues in the IPCC AR6: The text and the subtext

This session aims to convene key IPCC authors from the AR6 who worked on the first-ever IPCC cross-report synthesis of findings related to human migration and mobility. The AR6’s treatment of migration represented an important advance for the IPCC, which at its inception was tasked with assessing the climatic conditions, events and variability that could upset habitability and drive displacement and migration. The AR6 concluded that the more agency migrants have (i.e. the degree of voluntariness and freedom of movement), the greater the potential benefits for sending and receiving areas. The AR6 tempered alarmist policy rhetoric about international migration, emphasizing that the vast majority of climate-related migration and displacement observed currently takes place within countries. Likewise the AR6 sought to temper national defense policy narratives that erroneously conflate climate migration with civil and international conflict by elucidating these as separate processes. Finally, the AR6 highlighted a growing policy concern about habitability risks that will likely emerge in coming decades under all emissions policy scenarios, namely the future prospects of immobile populations: those unable or unwilling to move away from vulnerable areas. In this panel, we will candidly speak with migration policy stakeholders about the implications of this report, and speak candidly about the elements that were not included.

#### Authors and Partner organisations

Helen Adams, Reader, King’s College London; Lead Author, IPCC WG2 AR6 Ch. 7 Health, Wellbeing and Changing Structure of Communities

Elisabeth Gilmore, Associate Professor, Carleton University; Lead Author, IPCC AR6 WG 2 Ch. 17 North America, Drafting Author, Summary for Policy Makers

Robert McLeman, Professor, Environmental Studies, Wilfrid Laurier University; Coordinating Lead Author, IPCC AR6 WG2 Ch. 7: Health, wellbeing & the changing structure of communities

Chandni Singh, Senior Researcher, School of Environment and Development, Indian Institute for Human Settlements; Lead Author, IPCC AR6 WG2

David J. Wrathall, Associate Professor, Oregon State University; Lead Author AR6 WG2 Ch. 8: Poverty, Livelihoods and Sustainable Development

Amina Maharjan, Senior Livelihoods and Migration Specialist, International Centre for Integrated Mountain Development (ICIMOD)

Koko Warner, Director of Global Data Institute, International Organization for Migration

## session 362

Room 519B

Adaptation Choices

### Inclusive Approaches for Effective Mobilization of Adaptation Finance

Current global environmental and development challenges require increasingly transformational changes to tackle them, particularly to reach the Sustainable Development Goals (SDGs) and climate resilient development (IPCC, 2022). Finance is crucial in enabling and catalysing conditions for transformational adaptation (ibid).

This session will feature two sub-sessions seeking to provide further nuance to adaptation finance through macro – comparative analyses and through micro – case study approaches.

The first sub-session delves into the questions of access and allocation of adaptation finance with a special focus on multilateral climate funds like the GCF and on bilateral development cooperation with a view to informing the upcoming planning of the operationalization of the loss and damage fund. (35 minutes of presentations with further 10 min interactive Q&A component)

The second sub-session will delve into approaches of multi-stakeholder engagement in the effective design of adaptation finance instruments such as Debt for Nature Swaps offering insights from previous sovereign debt swap arrangements. With about 60 percent of low-income developing countries being already at high risk of or in debt distress, according to the IMF, sovereign debt swaps hold a significant potential as an instrument to define the adaptation futures of developing economies. (25 minutes with further 10 min interactive discussion).

### Authors and Partner organisations

Session concept jointly developed by Adheesha Perera, Member of the Climate Action Steering Committee of Ceylon Chamber of Commerce; Dr. Mariya Aleksandrova, Senior Researcher, German Institute of Development and Sustainability (IDOS); Deepal Doshi, PhD researcher at the University of Munich, Germany; and Kevin Moull, German Institute for Development Evaluation (DEval).

**Session Chair:** Adheesha Perera

## session 987

Room 518B

Indigenous Knowledge

### The Reconnection Vision – the Yukon First Nations youth-led approach to climate action

The Reconnection Vision (RV) is a youth-developed societal shift guide and tool kit and the Yukon First Nations unified approach to climate action. Here, climate change is a symptom of our state of disconnection and imbalance, that is reflected in the imbalance of the land. The RV was developed through the Yukon First Nations Climate Action Fellowship, where 13 young people strived to be whole people and be in good relationship with themselves, eachother and the Land. Through their two-year journey, they confronted the norms of our society that actively bar Reconnection and perpetuate disconnection.

In this session, members of the Reconnection Collective will share their journey in Reconnection and how they are actively transforming they way we live, learn and work. They will present their 10 Reconnection Seeds, vision and digital storytelling website, [www.reconnection.vision](http://www.reconnection.vision).

### Authors and Partner organisations

Yukon University, Reconnection Collective.



session 314

Room 518C

Nature-based solutions

## Learning from innovative partnerships and taking action with Nature: A reflection on Community Led Climate Adaptation and Resilience

Drawn by access to marine resources and trade routes, people have settled along the world’s coastlines throughout history. According to the United Nations Ocean Conference fact sheet 2017, 37% of humans live along the coast. The combined values from shipping, tourism, and commercial and subsistence fishing mean that living by the sea offers a great opportunity. Coastlines are therefore our frontlines: it is here where many hazards cause the greatest havoc.

Human-induced climate change, including more frequent and intense extreme events, has caused detrimental impacts and increasingly irreversible losses and damages to nature and people with adverse socioeconomic consequences, especially along the frontlines. This situation is evident with the ever-increasing risks of floods, droughts, storms (hurricanes) and heat waves. In 2004, the Indian Ocean tsunami killed at least 228,000 people and caused estimated losses of USD 15 billion. On a much more regular basis, cyclones and hurricanes kill and destroy as they reach land with maximum speed. Recent cases include Hurricane Dorian (2019) that caused loss of lives and about \$ 3 billion in damages in the Bahamas. Cascading and compounding impacts attributed to climate change will also result in losses of coastal ecosystems and ecosystems services that cascade into risks to livelihoods and well-being.

The Nature Conservancy (TNC) and the International federation of Red Cross and Red Crescent Societies (IFRC) work with communities and governments to put into action the transformation needed to keep pace with the rising impacts of climate change and carry out nature-based solutions (nbS) for adaptation to benefit people in the Caribbean Islands and Asia Pacific Regions. Having a sound understanding of why people are more likely to be impacted by hazards in a changing climate is essential to address the root causes of these challenges and strengthen people and nature’s adaptive capacities. NbS can be powerful and cost-effective means to help communities adapt while lowering hazard-related damages and losses. The challenge is to bring such solutions to scale, and to do so fast. Healthy ecosystems can boost livelihoods, strengthen resilience to extreme events, foster economic opportunity, and improve gender equity.

### Authors and Partner organisations

The Nature Conservancy

Eddy Silva – Climate Adaptation Program Manager, Caribbean Policy and Strategic Parentships

Natainia Lummen – Snr NbS and Community Resilience Specialists, Tackle Climate Change

Mariski Nirwan – Conservation Portfolio Manager, Indonesia

The International Federation of Red Cross and Red Crescent Society and National Societies

Kevin Douglas – Emergency Services Manager, Jamaica Red Cross

Velda Ferguson – IFRC, Trinidad Cluster

session 673

Room 523

Adaptation Choices

## Climate change and the energy sector: Roadmaps toward adaptation

Energy utilities face unique challenges in the ongoing context of climate change. As owners and operators of large infrastructure portfolios, they are directly exposed to physical climate risks that are expected to be exacerbated in future decades. Moreover, energy utilities provide critical services to their customers. Resilience of the energy grid directly affects the climate vulnerability of communities. Finally, their climate adaptation strategies need to be aligned with the evolution of the energy system.

Given that energy utilities operate in a wide range of geographic, cultural, climatic, and economic contexts, they are expected to take different trajectories towards climate change adaptation. For example, some companies will favor a top-down, corporate-focused approach aligned with frameworks such as the Taskforce on Climate Financial Disclosure. Others will prefer to implement processes driven by climate data to trigger changes at the infrastructure or project level. In the absence of metrics to measure or define the success of adaptation, strategies that are most beneficial to achieve a high level of climate resilience can be challenged.

This session aims to discuss the challenges that the energy sector is facing and the strategies they adopt to adapt to climate change. The session will consist in a panel presentation of representatives from different energy organizations, moderated by Hydro-Québec. Each panelist will be invited to briefly present their approach and challenges toward climate adaptation. The objective of the panel will be to engage in thought-provoking discussions on the following questions:

- What are the best trajectories to increase climate resilience for the energy sector?
- How do the specificities of different organizations of the energy sector affect their adaptation strategies?
- How do your strategies benefit to climate change adaptation of the communities depending on your organization?

The expected outcomes of the session are to better understand the diversity of responses in the energy sector regarding climate adaptation and to gain insight on how different contexts trigger different adaptation trajectories.

### Authors and Partner organisations

Jean-Philippe Martin, Hydro-Québec

Isabelle Chartier, Hydro-Québec

Yann Chavaillaz, Hydro-Québec

Jacinthe Clavet-Gaumont, Hydro-Québec

## session 464

Room 522

Adaptation Choices

### Adaptation effectiveness: framework, metric and indicators

The new estimates of the costs of adaptation and the estimated financial needs for adaptation from developing countries indicate higher values than previously reported (Adaptation Gap Report 2022, UNEP). There have been positive trends in the emergence of new instruments, actors and approaches to scale up adaptation, including in the private sector. However, the financial gap remains larger and larger. It is also important to note that finance is a means rather than an end: the availability of funds does not guarantee that they will be used efficiently and effectively. It is worth noting that insufficient evidence on the effectiveness of adaptation in different contexts, exacerbated by various metrics applied across projects and result in weak incentives for investment in adaptation. In addition, the COP27 decision asks IPCC to update its Technical Guidelines for Assessing Climate Change Impacts and Adaptations published in 1992. Meanwhile, the Global Stocktake starts from 2023 requires further work on the adaptation metrics to track progress and monitor the effectiveness of adaptation. This session aims to contribute to these important works.

The proposed session is organized by the UN-led World Adaptation Science Programme (WASP), which is one of the four pillars of the World Climate Programme. WASP's core vision is ensuring that climate adaptation knowledge gaps are filled to inform evidence-based policies, solutions and actions for successful adaptation to new climate conditions. Our priority is addressing the knowledge needs in vulnerable developing countries and providing policy-relevant science for decision-makers.

The programme of the session requires 90 minutes, including a brief opening remark, one or two technical presentations, followed by a panel discussion with some interactive activities with the audience. The chair of the session will close the discussion with summaries and closing remarks.

This session intends to conduct an open consultation with the wide adaptation community on the critical issue to address adaptation effectiveness, focusing on adaptation guidelines, metrics and toolkits currently in practice and in development at project, national, regional, and international levels, including vulnerability indexes.

The outcome of this session will contribute to the upcoming WASP science for adaptation policy brief on the topic, to be launched at the COP28. We also hope the discussion and outcome will help move forward the research agenda and policy process around this topic, informing IPCC, UNFCCC, GEF and GCF, the funding organizations of the WASP.

### Authors and Partner organisations

#### Leading experts:

Cynthia Rosenzweig, Anand Patwardhan, Johanna Nalau, Minpeng Chen, Bruce Currie-Alder, Alexandre K. Magnan (tbc)

## session 699

Room 525

Equity & Justice

### Climate risk mapping to advance equitable climate action

Climate change vulnerability and risk mapping is a useful tool to help communities visualize the spatial interactions between hazards, exposure, and vulnerabilities to understand where the community is most at-risk, who is most vulnerable, and why. Mapping is being used more frequently to inform climate change adaptation planning. However, approaches to climate vulnerability and risk mapping have been ad hoc, and do not always result in decision-useful data, sometimes hindered by complexity, silos, and knowledge gaps on key terms and variables. How can we make sure risk mapping projects are accessible and achievable for as many communities and decision-makers as possible? Further, when projects are completed, how can they be used to support vulnerable communities and equity-deserving groups?

This knowledge-exchange session will focus on how community climate risk maps can be used as one tool to inform equity-focused climate adaptation. The session will include an introductory presentation on equity-driven climate adaptation planning, and case studies from 2-3 communities that have completed different climate risk mapping projects and are at various stages of implementation. Each case study will summarize a mapping project and discuss the different drivers of exposure, vulnerability, and risk across an area, and how this knowledge has been used to design community-level equity-driven actions. The case studies will also include lessons learned from each project and how challenges were overcome. Q&A and panel discussion will then help participants understand how the mapping approach can be integrated into decision-making, how the projects could be adapted or scaled.

Finally, a facilitated dialogue between panellists and audience will identify the common barriers to completing and/or using the results of mapping projects. The session panellists and attendees will co-develop solutions and next steps to increase the accessibility and useability of climate risk mapping data.

### Participants

- Session organizer:** Christina Schwantes, Advisor, Risk and Resilience, WSP Canada Inc.
- Presenter/Panelist 1:** Ewa Jackson, Managing Director, ICLEI Canada
- Presenter/Panelist 2:** Dawn Smith, Adaptation Leader, The City of Calgary
- Presenter/Panelist 3:** Francis Labelle-Giroux, Aménagement, urbaniste-stagiaire, MRC D'Antoine Labelle, Région des Laurentides

session 647

Room 524A  
Collaborative

Indigenous Knowledge

Normative visioning, authorship and  
imagination: experimenting with  
alternative futures for transformative  
adaptation

Adapting to climate change requires challenging who gets to imagine and make decisions about the future and how to decolonise persistent development narratives. Normative Future Visioning (NFV) (Nalau and Cobb, 2022) is about the collective imagination of desired future end-states and the trajectories they entail. It has the potential to foster critical pedagogical processes, where knowledge is built up to emancipate marginalised ways of being and knowing (Escobar, 2018). Through processes of radical imagination, stakeholders can challenge (or plan to disrupt) dominant development assumptions and trajectories. In turn, this foregrounds the significance of the relative authorship of participants and facilitators as they direct discussions and surface or conceal a diversity of possible futures. Despite the potential of - and issues of concern with - NFV, to date it has remained at the margins of adaptation studies.

This session builds on the creative ethos of NFV approaches to enable diverse participants to explore and challenge the transformative potential of experiences of NFV. After introductory remarks (5mins), participants will split into four tables, each dedicated to discussing one of four questions, as follows:

- How can working with local and Indigenous voices enable a navigation of normative adaptation futures in more imaginative ways - e.g., across different temporal and geographical boundaries?
- How is a theory of change embedded in NFV strategies? To what extent do issues of authorship arise from these strategies, opening up or closing down different ambitions for future change through adaptation?
- What are the particularities of NFV when it comes to trust building, conflict and difference? To what extent are these issues leveraged to decolonise ideas about how the future should be?
- What is the role of science in NFV - supporting, disrupting or overshadowing non-hegemonic (potentially decolonising) ways of knowing and experiencing adaptation?

Organisers/authors

Dr Jessica Thorn, University of St Andrews, University of Namibia; Professor Jonathan Ensor, University of York; Dr Maria Evangelina Filippi, University of Bristol; Eunomia; Professor Mark Pelling, University College London; Dr Max Hope, Leeds Beckett University Professor Robert Marchant, University of York; Dr Thaisa Comelli, University College London

Partner organisations

Dr Tobias Nyumba, University of York, University of Nairobi; Lucy Wariungi, African Conservation Centre, Kenya; Dr Guillermo Delgado, Namibia's Informal Settlement Upgrading Programme; Sion Shifa, Namibia Ministry of Environment and Tourism; Anna Sobczak, UN Habitat Participatory Slum Upgrading Programme

session 880

Room 524B  
Collaborative

Adaptation Choices

Global Action on Sea Level Rise  
Adaptation: Knowledge Café on Co-  
Producing Actionable Information and  
Advancing Collaboration and Practice

Rising seas caused by global warming are estimated to threaten over 400 million coastal and island residents on every inhabited continent by the end of the century. Due to continued emissions of greenhouse gases, there is strong scientific agreement that we will see an acceleration of global sea level rise with an additional 0.5-1.4 m added by the end of the century. Even greater amounts of rise cannot be ruled out due to deep uncertainty related to ice sheet processes. Projected sea level change is a foundational input to support policy, planning, risk assessment, and adaptation to future flooding, inundation, and erosion hazards.

This interactive session, hosted by the Practitioner Exchange for Effective Response to Sea Level Rise (PEERS), Natural Resources Canada, and City University New York aims to gather researchers, practitioners and decision-makers working on the issue of sea level rise. The session will provide networking and knowledge co-production opportunities to advance the resilience of coastal communities to sea level rise. The session will focus on how to better co-produce and communicate actionable information and advance coordinated adaptation actions and emerging practices by sparking conversations around what adaptation measures and approaches are working and not working in different contexts globally, and by creating opportunities for interaction among peers and subject matter experts.

The session will be organized as a knowledge café with a strong focus on taking stock of leading practices evolving in practitioner communities, across government, as well as the latest scientific research supporting adaptation.

Authors and Partner organisations

Main facilitator:

David Behar (USA) – Climate Program Director, San Francisco Public Utilities Commission

Co-facilitators:

Mary-Ann Wilson, John Sommerville, Thomas James – Natural Resources Canada  
Gordon Smith (Canada) – Strategic Lead, Community Climate Action for the Province of Nova Scotia

Laurice Jamero (Philippines) – Resilience Coordinator, Manila Observatory  
William Solecki - City University New York



session 648

Room 524C  
Collaborative

Equity & Justice

Informality and urban adaptation

Understanding the role of informality in urban adaptation is critical. Informality is everywhere, yet often insufficiently recognised, considered, and integrated in urban adaptation planning and practice. This “knowledge co-production” session will follow a world café style conversation. The overarching question to guide the session will be: “What role does informality, as a label attached to activities, peoples and places, play in efforts towards more equitable adaptation governance?”

The session will start with input on informality and adaptation (drawing on 3 cases from South Africa, Malawi and Mexico) and underlining the idea that informality is first and foremost a social construct, legitimized by those in power. Then a world cafe style process will follow, to explore “informality and inequitable vulnerabilities”, “informality as a source of adaptation innovation” and “informality and opportunities in adaptation governance”. After feedback, a plenary discussion will focus on emerging areas of work, areas of priority for adaptation policy and practice, and an opportunity to discuss future collaboration.

Authors and Partner organisations

- Session hosts:**
- Gina Ziervogel - University of Cape Town
  - Hallie Eakin - Arizona State University
  - Maike Hamann – University of Exeter
  - Nadine Methner – University of Cape Town
- In absentia:** Johan Enqvist – Stockholm University

session 967

Room 520A  
LAC Pavilion  
Hybrid

Indigenous Knowledge

Lessons learned from local adaptation practices in agriculture, forestry, and livestock as a response to climate change in Colombia, Cuba, Chile, Ecuador, and Peru

Climate change impacts are expected on agriculture, forestry, and livestock practices in the Latin American region, impacting already vulnerable communities. Additionally, there is still a lot of adaptation research on adaptation measures at local level required. Based on a series of traditional papers presented to the Adaptation Futures, a session has been put together to showcase the research done on agriculture, forestry, and livestock measures in the region. As well as to have a greater discussion on how this research can give us an insight on the replication of good adaptation practices in other areas in the region, based on similar ecosystem and/or community dynamics.

Authors and Partner organisations

- Facilitator:**
- Gabriel Quijandria, Regional Director for South America at IUCN
- Panelists:**
- Catalina Castillo,
  - Pedro Pablo,
  - Gonzalo Perez,
  - Eduardo Fuentes Navarro,
  - Gonzalo Lizarralde





session 659

Room 520B  
Africa Pavilion  
Hybrid

Indigenous Knowledge

Partage d’une bonne pratique sur la méthodologie d’autonomisation de formation et de renforcement des capacités en matière d’action climatique

Les changements climatiques, problème mondial par excellence, constituent aujourd’hui la question déterminante de notre époque et affectent désormais tous les pays du monde, principalement les pays africains.

Depuis 2015, la Communauté Internationale a adopté une série d’Agendas mondiaux pour le Monde que Nous Voulons, dont les Objectifs du Développement Durable (ODD), l’Agenda du Climat, le Nouvel Agenda Urbain, le Cadre de Sendai pour la Réduction des Risques de Catastrophes ainsi que l’Agenda de l’Action d’Addis Abeba (AAAA).

Pour permettre la territorialisation et la localisation de ces Agendas, et en vue d’autonomiser, de développer et de renforcer les capacités des Collectivités Territoriales africaines (CTA), premières pour ne pas dire principales Institutions qui sont affectées par les Changements Climatiques, l’Organisation Internationale Panafricaine (CGLU Afrique) a retenu l’Action Climatique, la Biodiversité et les systèmes alimentaires parmi ses Priorités.

Dans ce cadre, un cadre de Partenariat et de Collaboration a été mis en place entre l’Académie Africaine des Collectivités Territoriales (ALGA) de CGLU Afrique et l’Agence de la Transition Ecologique ADEME de France a été mis en place depuis 2018 à ce jour pour développer une Méthodologie d’autonomisation, de formation et de renforcement des capacités ciblant les CTA.

Auteurs et organisations partenaires

- Dr Najat Zarrouk, Directrice du Développement, de la Gestion des Connaissances et de ALGA de CGLU Afrique, Maroc
- Mlle Fariath Chabi, Task Manager ALGA de CGLU Afrique, Bénin
- Dr Joseph Magloire OLINGA OLINGA, Géographe – Aménagement du territoire, gestion de projets et enjeux climatiques chargé d’études urbaines et environnementales, Cameroun
- Honorable Mr Abdoulkader IMAN ADEN, Président de la Commune de Boulaos, Djibouti
- Mme Najat MOUSSAOUI, Cadre Responsable de la Formation à la Région de l’Oriental, Maroc
- Mr Fakassi Fofana, Représentant Régional, ONG Grat, Mali

session 416

Room 520C  
Hybrid

Indigenous Knowledge

New approaches to indigenous climate change adaptation: decoloniolity, intersectionality, indigenous climate justice, and the pluriverse

Climate change is exacerbating many of the challenges faced by indigenous peoples, including food, water, and energy security, access to sustainable livelihoods, poor health and wellbeing, and the enactment of responsibilities to and connections with human and more-than-human beings in indigenous territories (Bardsley and Wiseman, 2012; Beaumier et al., 2015; Johnson et al., 2022; Nursey-Bray et al., 2019; Nursey-Bray and Parsons, 2020; Weatherdon et al., 2016). These coupled challenges are contributing to mounting calls from scholars, activists, and indigenous leaders for indigenous peoples’ experiences, values, knowledges, capacities and priorities to be highlighted and located at the heart of building alternative decolonising visions for their futures under changing climate conditions. In this proposed session, we will present the latest research exploring different indigenous peoples (Australia, Aotearoa New Zealand, Vanuatu, Canada) experiences and responses to climate change. Presenters draw on intersectionality, indigenous environmental justice, indigenous feminist, anti-colonial and decolonial approaches to demonstrate the ways in which indigenous climate adaptations can and should be adopted to create more equitable climate futures.

Research on indigenous peoples and climate change that developed over the last two decades developed in response to shortcomings in academic and policy narratives that depicted climate change impacts and responses through the lens of science and economics (Adger et al., 2011), and conceptualised indigenous peoples as both powerless climate victims and resilient heroes (Cameron, 2012; Comberti et al., 2019; Lin et al., 2020). Scholars demonstrate how the existing climate change narratives distort and obscure indigenous peoples realities, often ignoring the past and present-day realities of colonialism and capitalism, contributing to the creation of inappropriate knowledge claims about indigenous experiences of climate risks and adaptation responses that intensify inequities, magnify injustices, and lead to maladaptation (Bordner et al., 2020; Parsons et al., 2019; Smith and Rhiney, 2016; Whyte, 2020). In this session we are presenting a different narrative about indigenous climate adaptation based on the unique histories, worldviews, epistemologies, lived experiences, and aspirations of indigenous peoples. The presenters in this session will examine carefully how the intersections of gender, class, race, culture and other social categories coalesce to produce varied and variable outlooks on climate change between and within indigenous peoples (Bee et al., 2015; Johnson et al., 2021; Osborne, 2015; Prior and Heinämäki, 2017).

**Authors and Partner organisations**

Assoc Prof Karen Fisher, School of Environment, The University of Auckland.

Assoc Prof Meg Parsons, School of Environment, The University of Auckland.

Prof Melissa Nursey-Bray, School of Social Sciences, The University of Adelaide.

Mr Allan Rarai, Climate Services Manager at the Vanuatu Meteorology and Geo-Hazards Department, Vanuatu Government.

Ms Roa Crease, PhD Candidate, The University of Waikato.

Dr Lilia Yumagulova, Program Director, Preparing Our Home (that empowers Indigenous youth in emergency preparedness) and Editor of HazNet, Canada’s disaster resilience magazine.



session 639

Room 520D  
Hybrid

Adaptation Choices

Crises and compromise: What will it take for countries to reach the Global Goal on Adaptation?

The Paris Agreement established the Global Goal on Adaptation (GGA) articulating a collective effort to enhance adaptive capacity, strengthen resilience, and reduce vulnerability. Climate adaptative and resilient agrifood systems responses are seen as fundamental to achieving both the GGA and collective temperature goal. Over 90% of countries include agriculture as a priority sector in the latest round of nationally determined contributions (NDCs) and National Adaptation Plans (NAPs) (FAO, 2021a). Furthermore, the current crises, from climate to the Covid pandemic and the ongoing war in Ukraine, have revealed the fragility of our agrifood systems but also their potential to bring about change and build resilient communities that are food, livelihood and economically secure.

Evidence suggest that globally agreed goals, on adaptation included, do not easily trickle down from the global to the national level. Firstly, emerging evidence from global goal setting agendas indicate the need to consider national capacities and priorities when designing standards, to ensure successful operationalization (Hickmann et al., 2022; Leiter, 2022). A country-driven approach may only be feasible if countries have sufficient resource availability, administrative capacity and economic development, as well as adequate support from external donors.

Second, recent assessments show that the share of global climate finance in the agriculture and land use sector remains largely insufficient (CPI-IFAD, 2020; FAO, 2021b,c; IFPRI, 2022). Current financial flows for climate change in the agriculture, forestry, and land use (AFOLU) sector, one of the central components of food systems, amount to less than 4 percent of total climate finance (IFPRI, 2022). Third, unlike for mitigation, no global framework for measuring progress on adaptation has been agreed upon. Thus, countries have only limited guidance as to what or how to track and report on adaptation progress.

With insights from the South and the North, this session will focus on how to operationalize global goals on adaptation at country and sub-national levels with agriculture and food systems.

Authors and Partner organisations

Food and Agriculture Organization of the United Nations (FAO), Provincial government of Quebec (tbc), Government of Senegal (tbc), Government of Haiti (tbc), Government of Côte d'Ivoire (tbc)

session 660

Room 520E  
Hybrid

Adaptation Choices

Indoor Heat: Risks and Solutions for a Warmer World

Extreme heat is one of the clearest and most deadly impacts of climate change. Most people who are impacted, are exposed to high temperatures indoors in their homes, workplaces, and other indoor places. Despite the substantial role indoor exposure has played in heat wave-related mortality, few epidemiological studies have examined the health effects of exposure to indoor heat. Knowledge gaps regarding indoor heat-health thresholds, vulnerability, and adaptive capacity persist and present important limitations for protective interventions and regulatory action. This session will bring together researchers and practitioners to discuss the state of research on topics related to indoor heat exposure with a focus on adaptation solutions in policy and practice.

This session will promote knowledge exchange and learning amongst a community of researchers and practitioners working on Indoor heat risks. The discussion will also be an input to an ongoing process to understand Indoor heat risks and solutions, policy and research gaps, and develop a toolkit to address one aspect of the issue initiated by Health Canada, The Global Heat Health Information Network, and the Red Cross Red Crescent Climate Centre.

Authors & Partner organisations

Julie Arrighi, Interim Director of the Red Cross Red Crescent Climate Centre  
Paddy Enright, Health Canada  
Rosa Von Borries, Global Heat Health Information Network, WHO-WMO Joint Office  
Joy Shumake-Guillemot, Global Heat Health Information Network, WHO-WMO Joint Office



## session 973

Room 520F  
Hybrid

Indigenous Knowledge

### Empowering the most vulnerable, women, youth, elderly, indigenous populations and incorporating local and traditional knowledge

During the session AF National Implementing Entities (NIE)s discuss findings from projects that benefit and empower the most vulnerable communities such as women, youth, the elderly, and indigenous populations, and incorporate local and traditional knowledge.

#### Authors and Partner organisations

Adaptation Fund

## session 982

Room 519A

Adaptation Choices

### Decision-support tools for climate resilient infrastructure and communities

The use of decision-making tools and methodologies are key for building effective resilience to the impacts of climate change. The session, entitled “Decision-support tools and assessments for climate resilient infrastructure and communities”, aims to bring together national and international experts to share best practices and discuss ways of increasing the resilience of community infrastructure in the face of climate change. The various presentations will provide an overview of relevant tools in the vulnerability assessment process, evaluation of resilience projects and effective measures for building low-carbon and resilient infrastructure. The session will offer the opportunity to gain valuable insights from leading national and international experts, and to connect with a community of professionals, researchers and policy-makers working on infrastructure resilience to climate change.

#### Participants

Chair : Abderrahmane.Yagouti, Infrastructure Canada





session 369

Room 518A

Limits to Adaptation

Resilience beyond adaptive capacity:  
How can Strengthening Loss and  
Damage response contribute to  
adaptation?

As climate action delays, we are approaching the limit of adaptive capacity, with climate induced losses and damages becoming inevitable. Our current mitigation and adaptation efforts have been deemed insufficient to resist loss and damage, particularly in vulnerable communities and countries of the Global South. Local communities, mainly women, people with disability and other marginalised peoples and ecosystems in many climate-vulnerable countries in the Global South with less adaptive capacity are suffering from unavoidable losses and damages caused by climate change (Boyd et al., 2021; Ojha & Dahal, 2022). These countries have gone beyond their ability to adapt both due to frequent and intensified extreme weather events such as floods and slow-onset events such as sea level rise, and also because of the poor institutional and financing capacity to manage the risk. In some countries and localities, it is already too late to fix the problem with conventional adaptation interventions (Kumari, 2022). We are seeing significant loss of lives, livelihoods, assets, infrastructures, culture, well-being, and biodiversity (Bhandari et al., 2022; van der Geest, K. et al., (2019).

With increasing climate risks exceeding communities’ adaptive capacity, there is a need to bring Loss and Damage (L&D) architecture to better address loss and damage (Huq 2022, 2023). While L&D has appeared in previous UNFCCC negotiations for the past three decades, only recently last year in COP27, it was agreed to pursue a L&D finance mechanism, recognising the limits of adaptation in the context of delayed mitigation. This policy move is considered a positive action; however, it comes with new questions as to how it will be operationalised at global, national and sub-national levels (Hossain et al., 2021). How do we understand when adaptation is exhausted and L&D is needed? Should L&D have a separate institutional architecture or can it still build on the existing adaptation and disaster risk reduction systems? Shouldn’t L&D be seen as a means to increase resilience?

Authors and Partner organisations

- Saleemul Huq, International Centre for Climate Change and Development (ICC-CAD), Bangladesh
- Hemant Ojha and Basundhara Bhattarai, Institute for Study and Development Worldwide (IFSD), Australia
- Bhim Adhikari, International Development Research Centre (IDRC), Canada

session 493

Room 519B

Governance & Finance

The 2023 adaptation finance gap update  
and emerging lessons and best practice  
on how to bridge the gap

This proposed knowledge sharing session will present the new findings of the Adaptation Finance Gap analysis 2023. The format will be based on a series of short presentations, followed by an interactive discussion session on how to bridge the gap.

The adaptation finance gap is defined as the difference between the estimated costs of meeting a given adaptation target and the amount of finance available (UNEP, 2014).

Based on a combination of global and national studies, the UNEP adaptation gap report (AGR) estimated the annual costs / financial needs for adaptation in developing countries at between US\$ 160 billion and US\$ 340 billion by 2030 (UNEP, 2016). With increasing levels of climate change, this annual cost was projected to increase to between US\$ 315 billion and US\$ 565 billion by 2050. The most recent gap report (UNEP, 2022) suggests that for developing countries, the estimated adaptation costs – and likely adaptation financing needs – could be five to 10 times greater than current international adaptation finance flows (as reported by OECD, 2022).

These adaptation cost estimates were produced in 2015. Much has changed since then, with improved academic studies and country submissions. A major update of the costs of adaptation is being undertaken in 2023. This research will update the estimates of the costs of adaptation, the estimated financing needs from developing countries, and the levels of finance flows. This will be used to estimate the size of the adaptation finance gap. This new gap estimate has extremely high relevance for the new collective, quantified goal on climate finance.

This session will present the headline research findings from the updated AGR 2023 study. It will present and discuss the updated estimates, providing details of various evidence lines (costs of adaptation, country financial needs from NDCs and NAPs, adaptation finance flows), and present and discuss the implications of these new estimates for the adaptation finance gap.

Participants

The session is proposed by a series of organisations working on the AGR update as well as other participants. It includes:

- UNEP
- Paul Watkiss Associates, UK
- Kulima Integrated Development Solutions, South Africa
- Independent researchers from Nepal and Rwanda.
- Institute for Climate Economics, France
- Chalmers School of Management, Sweden



session 694

Room 518B

Indigenous Knowledge

## Applying Indigenous Knowledge to climate change adaptation action across sectors — Panel Discussion on Best Practices and Lessons Learned

Indigenous Peoples have been relying on Indigenous knowledge to monitor and adapt to the changing environment for millennia. Indigenous knowledge systems play an important role in detecting and adapting to the impacts of climate change . Indigenous Knowledge was highlighted as a crucial resource for adaptation by the Intergovernmental Panel on Climate Change’ s Working Groups .

This panel discussion will showcase approximately 5 (TBC) innovative climate change adaptation initiatives by Indigenous communities and organizations in South of 60 Canada, who are working in partnership with the Government of Canada. Panellists will highlight key Indigenous-led projects that demonstrate how Indigenous knowledge has informed climate adaptation to build long-term resilience (conference theme #1), and showcase how the Government of Canada has helped to support Indigenous-led climate adaptation efforts across a range of sectors.

The panellists will each provide brief overviews of their respective initiatives related to the adaptation to the impacts of climate change on health, infrastructure, and environmental stewardship. This will be an opportunity to discuss challenges, best practices, solutions and lessons learned. Following this, there will be a facilitated discussion that will highlight how Indigenous knowledge played a role in their initiatives, and what approaches, tools and practices could be used as models and best practices for the integration of Indigenous knowledge in climate adaptation. The session will also include opportunities for the audience to ask their own questions and interact with the panellists.

### Authors and Partner organisations

Representatives from Indigenous Services Canada (ISC) and Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) (TBD) will facilitate and moderate the session and support the identification of a range of suitable projects to present, drawing from the wide range of Indigenous-led projects supported to date.



session 178

Room 523

Indigenous Knowledge

Putting rural women at the centre of climate information, advisory services, and adaptation planning

Knowledge Sharing Session: Open Session

The aim of this session on is translate and communicate good practices for tailoring climate advisory services for women farmers and enabling them to access resources to build adaptive capacity. We will discuss participatory methods for climate-informed agricultural extension, climate and digital literacy, innovative finance schemes, and other services that can help women access, use, and benefit from climate services and build resilience to climate change.

Rationale

Women play a major role in agricultural production and are disproportionately affected by climate variability and change. Enabling women to account for climate risks in livelihood-related decision-making can help strengthen the resilience of rural communities. However, there is much to learn about how women farmers make decisions in the face of climate risks. Prior to choosing a course of actions, individuals usually appraise the probability and magnitude of hazards, consider a list of alternative actions, and evaluate the consequences of these actions on their livelihoods.

This session will discuss:

- How climate advisory services can help determine climate risks in agriculture at the local, sub-national, and national levels;
- How extension support, integrated farming systems and technologies, and policy measures can help farmers build adaptive capacity;
- How innovative business models can help mobilize financial and technological resources for to support climate change adaptation on the farm.

Authors and Partner organisations

**Moderator and session organizer:** Dr. Caroline Staub

**Session co-organizers:** Rajat Shubhro Mukherjee, Ritika Kherotia

**Contributor:** Promoting gender equity in smallholders’ adaptation decision-making through digital climate information services and participatory extension: Field experiences from E-PICSA in Southern Africa. Authors: Shibata, R., Clarkson, G., Dorward, P., Caine, A. and Clarke, C.

session 375

Room 522

Adaptation Choices

Critical discussions on adaptation directions: Insights from IPCC Working Group II

Adaptation science, policy and practice have progressed in recent years. The Paris Agreement heralded a new era for greater focus on climate adaptation. Adaptation investments are increasing, even if slowly, and implementation is growing. The potential for a substantial increase in adaptation in the coming years with a wide range of benefits.

Yet, the IPCC 6th Assessment Report of Working Group 2 notes that there are severe challenges, gaps and limits in what adaptation can achieve. Questions have also been raised in terms of whose knowledge, experiences and insights are driving the current adaptation agenda including its design and implementation, what is missing and how we can diversify the current discussions on where adaptation should be heading.

This session opens up with an overview of key insights from IPCC WGII to set the scene where the assessment is presented by several IPCC WGII authors (30 min). We then open up the space for critical discussion with the audience, and seek to identify, in particular, the ‘next generation’ questions that we should be asking in driving the adaptation agenda forward in an inclusive manner that also utilizes multiple forms and sources of knowledge, and connects across scales and across geographies. The discussion will be facilitated by two panel members (Lisa Schipper and Edmond Totin; 50 minutes). Our aim is to co-design a learning space through this session that can be used to accelerate critical debates between and within the scientific and policy communities about how we think about adaptation, which of those frames are useful, and how the key questions for the future could be formulated. We will then close with a brief wrap-up (Johanna Nalau; 10 minutes).

Authors and Partner organisations

Johanna Nalau, Griffith University, Australia

Siri Eriksen, Norwegian University of Life Sciences (NMBU)

Elisabeth Gilmore, Carleton University, Canada and Peace Research Institute Oslo (PRIO)

Debora Ley, Economic Commission for Latin America and the Caribbean

Mike Morecroft, Natural England, UK

Aditi Mukherji, IWMI, India

Lisa Schipper, University of Bonn, Germany.

William Solecki, Hunter College - City University of New York, USA

Edmond Totin, Université nationale d’agriculture, Benin



session 330

Room 525

Adaptation Choices

The social impact of standarrds and technical guidance in climate change adaptation: Making the link between research and the people it seeks to serve and benefit

The proposed international-focused knowledge sharing (closed session) panel will discuss how adaptation information, such as new ideas and research, can be codified into guidance, codes and standards in order to set new benchmarks and design minimums for the built environment and ultimately better protect and benefit the lives of individuals. The panel will focus on case studies relating to guidance and standards addressing a variety of catastrophic events. These case studies will highlight best practices and lessons learned about effective adaptation methods for these hazards and demonstrate how research can be applied through guidance and standards to achieve changes in policy and practice, to ultimately realize adaptation goals.

The panel will begin with several short, pre-recorded video testimonies from people of various backgrounds who have been negatively affected by climate change and catastrophic events. Grounded by these individual experiences, the panel will provide presentations on their areas of expertise, followed by a panel discussion.

Each presentation will elaborate on different aspects of the adaptation system and how the underlying elements interact, while tying it back to standards and how they serve individuals. The first presentation will outline how organisations around the world are benefiting from a standardised, best-practice approach to addressing climate impacts, with a focus on ISO 14090. Shifting to a Canadian lens, a general overview of infrastructure resiliency and the National Adaptation Strategy will provide the context in which the system operates. The research process into adaptation strategies broadly, and high winds and WUI fire specifically, will be discussed along with how they lead to standardization strategies. The general Canadian standards development process will be outlined before discussing the standards created for high winds and WUI fire. Examples will be provided of where the research and resulting standards were implemented. Finally, real world challenges and opportunities in implementing guidance and standards will be presented, with examples from India.

Authors and Partner organisations

The panel will feature:

- Dr Mona Chhabra Anand, Disaster and Climate Resilience Specialist (panelist)
- Marianne Armstrong, Initiative Leader - Climate Resilient Built Environment Initiative, National Research Council (panelist)
- Prof. John Dora, Director, Climate Sense (panelist)
- Gary Graham, Sector Specialist, Standards Council of Canada (panelist)
- Chad Nelson, Principal Advisor, Adaptation and Resilience, Infrastructure Canada (panelist)
- Stephanie Poirier, Sector Specialist, Standards Council of Canada (moderator)
- Dan Sandink, Director of Research, Institute for Catastrophic Loss Reduction (panelist)

session 553

Room 524A  
Collaborative

Equity & Justice

How to embed justice in climate change practices. Dialogue on global urgencies and local practices

The IPCC (Intergovernmental Panel on Climate Change) Sixth Assessment Report (2022) highlights for the first time justice as a core element of climate change adaptation, alongside effectiveness and feasibility. Recent development in policy also reflects the growing awareness and need of justice considerations in adaptation planning and action, Just resilience is for instance one of the key principles in the recent European Union Climate Adaptation Strategy (2021). We are grappling with the clear need to transition our societies away from our current unsustainable trajectories. This demands significant social change. Striving for transitions that are more just requires us to re- organise the way we adapt and mitigate. Because justice has emerged as a key concept on the back of much growing evidence regarding how the most vulnerable people and systems are disproportionately at risk from climate change. These people and systems often have less capacity and capabilities to adapt and are the least likely to be heard, recognised and prioritised in adaptation processes, resulting in fewer benefits from adaptation actions. The lack of justice considerations and due processes can also result in ‘maladaptation’ resulting in redistribution of burdens or even enhancing risk for regions or groups. This is daunting, especially considering that those disproportionately affected have often contributed the least to causing climate change in the first place.

The aim of this session is to bring together experiences and approaches on how to embed justice in global and local climate change practices. We could learn a lot from the overarching concepts of climate justice.

Authors and Partner organisations

- Marian Stuiver, Wageningen University & Research, the Netherlands
- Frida Lager, Stockholm Environment Institute, Sweden
- Stephen Flood, Irish Climate Change Advisory Council Secretariat; Irish Climate Analysis and Research Units (ICARUS), Maynooth University
- Lisa Schipper, University of Bonn, Germany



session 747

Room 524B  
Collaborative

Adaptation Choices

Donor coordination fishbowl on adaptation metrics

Given the highly contextual nature of adaptation, and the varied definitions of “adaptation success,” there is no single set of metrics that can help measure progress toward the Global Goal on Adaptation. Many different approaches and frameworks are currently used to organize adaptation M&E. Much of this work is aimed at the local, project level rather than at the national or cross-sectoral levels and much of it is focused on process and outputs, rather than outcomes.

While a number of initiatives (e.g., GAMI, IPAM, RegionsAdapt) have sprung up to improve the development and coordination of adaptation metrics, donor agencies have an important role to play both in advancing the quality and application of adaptation metrics and, particularly, in coordinating amongst themselves in the creation of common tools, methods, and frameworks. In this highly interactive session, representatives from key development agencies and climate funds will use a “fishbowl” structure to discuss their own approach to adaptation M&E (e.g., success stories, lessons learned) and to find avenues for future collaboration around the use and programming of adaptation metrics that can have far reaching consequences for national and international adaptation planning and implementation. The discussion is also expected to explore how donors track adaptation results vis-a-vis resilience and other sectoral priorities.

Authors and Partner organisations

**Proposed Session Chairs:**

Catherine Pomposi, Climate Adaptation Metrics Advisor, USAID Bureau for Resilience and Food Security

Laurie Ashley, Climate Adaptation and Resilience Advisor, USAID Center for Resilience

Cathy Vaughan, Director of Learning, Innovation, and Research, USAID Climate Adaptation Support Activity

**Proposed Authors:**

Fernanda Zermoglio, Senior Climate Adaptation and Resilience Advisor, USAID Center for Resilience

Georgina Cundill-Kemp, Senior Programme Specialists, International Development Research Center

Jenny Frankel-Reid, Senior Program Officer, Climate Adaptation, Bill & Melinda Gates Foundation

Susannah Fisher, Senior Research Fellow, Kings College London

**Partner organizations:**

USAID Center for Resilience; USAID Center for Adaptation Support Activity; Gates Foundation; International Development Research Center; Kings College London; Kulima Development Solutions

session 345

Room 524C  
Collaborative

Adaptation Choices

Advances and needs for actionable adaptation under deep uncertainty

Prioritizing and realizing adaptation actions in the context of climate change is subject to a wide array of human and natural uncertainties. While research to reduce these uncertainties are significantly advancing, plausible futures for climate and society, complex and dynamic cause-and-effect relations, limits of knowledge or contested values are expected to result in deeply uncertain climate impacts, adaptation responses and effectiveness. Thus, tools to support decision-making in the context of these deep uncertainties can help make most out of limited or conflicting information.

Within the community of researchers and practitioners in the field of Decision-Making Under Deep Uncertainty (DMDU), a growing set of methods, tools and approaches is developed and assessed for policy-analysis to support decision-making for climate change adaptation challenges. As such, DMDU approaches like Robust Decision-Making or Adaptation Pathways offer guidance to identify (a) robust decisions in the context of various objectives and large uncertainties, and (b) trade-offs, flexible decisions, and opportunities by developing sequences of measures (adaptation pathways). Ongoing research is advancing these approaches to support making better adaptation choices.

In this session we aim to (a) collaboratively identify and discuss promising advancements for improving climate change adaptation decision-making in complex systems; and (b) inspire further research and discussion by showcasing novel approaches for decision-support at the forefront of science and society.

Participants

**Session organizers**

Julius Schlumberger, Deltares, Netherlands

Chandni Singh, Indian Institute for Human Settlements, India

Patrick Reed, Cornell University, USA

Bramka Arga Jafino, World Bank, USA

Tirusew Asefa, Tampa Bay Water, USA

Marjolijn Haasnoot, Deltares, Netherlands

**Invited speakers for lightning pitches:**

Julius Schlumberger, Deltares, Netherlands

Chandni Singh, Indian Institute for Human Settlements, India

Tirusew Asefa, Tampa Bay Water, USA

Arjuna Srinidhi, Watershed Organization Trust

Antonia Hadjimichael, Penn State University, USA

Nathan Bonham, University of Colorado Boulder, USA

Tuesday 03 .....  
16:30-18:00 .....

session 946

Adaptation Choices

## Tracking health adaptations - design, measurement and improvement of health adaptation programs

Nature-based Solutions for adaptation – or ecosystem-based adaptation - have in recent years surfaced as a blanket term applied for approaches that “protect, sustainably manage and restore natural and modified ecosystems that address societal challenges effectively and adaptively, simultaneously benefiting people and nature (IUCN 2020). Nature-based solutions (NbS) thus have the potential to deliver sustainable solutions to address climate impacts, while tackling the degradation of ecosystems and the resulting loss of biodiversity and ecosystem services. Until recent years, NbS were mainly emphasized in the context of their ability to mitigate climate change. However, the role of NbS in adaptation is now recognized as timely and of central importance to climate adaptation (GCA, 2019).

This session aims to unpack the concept of NbS and explore how NbS solutions for adaptation and related processes are translated at the local level. While the potential of NbS to link climate change-, biodiversity- and livelihood concerns is widely and increasingly recognized, and lessons are starting to emerge, little is yet known on how NbS approaches may in practise bring environmental, economic, and social benefits, to the most climate vulnerable populations in the Global South. There is still uncertainty as to what the potential risks, adverse effects, challenges, and opportunities associated with NbS are for local communities, who depend on ecosystem services for their livelihoods. At the same time, numerous lessons exist from decades of closely related efforts in local natural resource management that must not be forgotten in the development of NbS. As the impacts of climate change disproportionately affect the most vulnerable populations, combining NbS for adaptation with a strong community engagement, and pro-poor and rights-based approaches is critical to enhance the long-term sustainability of social-ecological systems. This session will unpack how engaging local communities, including indigenous and marginalized populations groups, and considering their views, rights, and interests as well as the realities of the context in which they live, should be reflected in all stages of the decision-making- and implementation processes of NbS initiatives, as emphasized in criteria 5 of the IUCN Global NbS Standards (IUCN 2020).

### Authors and Partner organizations

Chair:

Dr Caroline Schaer; CARE Denmark (in-person)

Presenters:

Dr Henri Neufeldt; UNEP Copenhagen Climate Centre (in-person)

Dr Dafa Gudina Gumo, CARE Ethiopia (in-person)

Dr Mikkel Funder; Danish Institute for International Studies (DIIS). (virtual)

Dr Jessica Thorn; University of Namibia & University of St Andrews (in-person)

Wednesday 04 ...  
8:30-10:00 .....

session 985

Governance & Finance

## Audit and Accountability for Adaptation

Governments of all levels around the world have made important commitments to adapt to climate change. These commitments to citizens and international partners take the forms of laws, directives, plans, programs, initiatives and other significant funding allocations. Government spending on adaptation, disaster risk reduction and responses to every more frequent floods, fires, storms and heat has increased exponentially in recent years and will only grow more significant in the years to come.

Auditors around the globe seek to examine whether governments of all levels are keeping their promises and making progress in assessing risks, developing plans and adapting to climate change. Climate change is fast becoming a key subject of performance audits around the globe.

This session will show how audits are a source of independent information on progress toward adaptation goals and a key driver of continual improvement. It will introduce key initiatives that the international audit community is implementing including the Global Cooperative Climate Change Adaptation Actions audit and the Climate Scanner.

### Authors and Partner organizations

Jerry DeMarco – Commissioner of Environment and Sustainable Development, OAG Canada

Kimberley Leach – Principal, OAG Canada - Moderator and facilitator

Dr. Vivi Niemenmaa – Secretary General, INTOSAI Working Group on Environmental Auditing, National Audit Office of Finland

Archana Shirsat – Deputy Director General, IDI

Dashiell Velasque Da Costa, Climate Scanner Project Coordinator, Federal Court of Accounts, Brazil

Mohamed Ibrahim Jaleel, Manager, Performance Audit Department, Auditor General’s Office Maldives

Wednesday 04 ...  
10:30-12:00 .....

session 561

Nature-based solutions

## Locally-led nature-based solutions for adaptation in practice: Building bridges between global concepts and local contexts.

Nature-based Solutions for adaptation – or ecosystem-based adaptation - have in recent years surfaced as a blanket term applied for approaches that “protect, sustainably manage and restore natural and modified ecosystems that address societal challenges effectively and adaptively, simultaneously benefiting people and nature (IUCN 2020). Nature-based solutions (NbS) thus have the potential to deliver sustainable solutions to address climate impacts, while tackling the degradation of ecosystems and the resulting loss of biodiversity and ecosystem services. Until recent years, NbS were mainly emphasized in the context of their ability to mitigate climate change. However, the role of NbS in adaptation is now recognized as timely and of central importance to climate adaptation (GCA, 2019).

This session aims to unpack the concept of NbS and explore how NbS solutions for adaptation and related processes are translated at the local level. While the potential of NbS to link climate change-, biodiversity- and livelihood concerns is widely and increasingly recognized, and lessons are starting to emerge, little is yet known on how NbS approaches may in practise bring environmental, economic, and social benefits, to the most climate vulnerable populations in the Global South. There is still uncertainty as to what the potential risks, adverse effects, challenges, and opportunities associated with NbS are for local communities, who depend on ecosystem services for their livelihoods. At the same time, numerous lessons exist from decades of closely related efforts in local natural resource management that must not be forgotten in the development of NbS. As the impacts of climate change disproportionately affect the most vulnerable populations, combining NbS for adaptation with a strong community engagement, and pro-poor and rights-based approaches is critical to enhance the long-term sustainability of social-ecological systems. This session will unpack how engaging local communities, including indigenous and marginalized populations groups, and considering their views, rights, and interests as well as the realities of the context in which they live, should be reflected in all stages of the decision-making- and implementation processes of NbS initiatives, as emphasized in criteria 5 of the IUCN Global NbS Standards (IUCN 2020).

### Authors and Partner organizations

**Chair:**

Dr Caroline Schaer; CARE Denmark (in-person)

**Presenters:**

Dr Henri Neufeldt; UNEP Copenhagen Climate Centre (in-person)

Dr Dafa Gudina Gumo, CARE Ethiopia (in-person)

Dr Mikkel Funder; Danish Institute for International Studies (DIIS). (virtual)

Dr Jessica Thorn; University of Namibia & University of St Andrews (in-person)

Wednesday 04 ...  
16:00-17:30 .....

session 716

Indigenous Knowledge

## Sharing experiences of knowledge and practices of small-holders farmers to face climate risks in the Pacific and in Africa

Small-scale agriculture is an important pillar of the economy and food security in many countries, especially in villages that rely heavily on their own production for their livelihoods. Today, despite improvements in crop productivity over the past decades, annual production remains highly dependent on climate variability. Among the consequences of climate change expected in the coming decades, the increase of periods of heavy rainfall as well as drought are expected.

Nevertheless over time in various countries which are different in terms of geomorphology, history and economic development, “risk cultures” have developed . People has learned to cope with climate and socio-environmental events according to its own knowledge, norms and values. Today many countries and territories are already being affected by the increase in the number of extreme climate and hydrological events. Faced with these growing climate risks, they need to organise coherent and structured responses to adapt to climate change, which means modifying ways of living and doing things though National Adaptation Plans.

The objective of this round table is to bring together the experiences of research-action carried out in the Pacific, in Africa and elsewhere on (1) the collection of knowledge, know-how, know-how of farmers facing extreme situations such as droughts, heavy rains, or even cyclones and (2) the initiatives of dialogue or hybridization between scientists, farmers, technical agents of institutions that may have taken place in the territories concerned, without attaching other summaries. All disciplinary fields are welcome. The objective will be to discuss survey methods, difficulties encountered and progress made in terms of appropriation and sharing of knowledge between the actors mentioned.

### Authors and Partner organizations

Catherine Sabinot, French National Research Institute for Sustainable Development (IRD), ESPACE-DEV – New Caledonia

Benjamin Sultan, French National Research Institute for Sustainable Development (IRD), ESPACE-DEV – WASP, France

Christophe Menkes, French National Research Institute for Sustainable Development (IRD) – New Caledonia

Fleur Vallet, French National Research Institute for Sustainable Development (IRD) - New Caledonia

Samson Jean-Marie, PhD Student, UNC-IRD, New Caledonia

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Pierre Metsan, Ministry of Education and Training, Vanuatu

Sunny Seuseu, Climate Information Services Officer, SPREP, Vanuatu

Moirah Mato, Ministry of Geohazard, Vanuatu

Youssoupha Tall, G-EAU, Senegal

Jeanne Riaux G-EAU, France

Aleksandra Dolinska, ART-DEV, France

Diabel Ndiaye, ANACIM, Senegal

Ousmane Ndiaye, ANACIM, Senegal

Thursday 05 .....  
8:30-10:00 .....

session 380

Limits to Adaptation

## Emerging adaptation practitioners and scholars: A dialogue on common and divergent challenges across African sociopolitical and environmental contexts

This session will entail an exchange among young African adaptation researchers and adaptation practitioners on the evolving relationship between adaptation research and practice. These scholars and practitioners working in a diversity of environmental and socio-political contexts will explore the limitations of contemporary collaborations across the academic-practitioner divide and evaluate how such collaborations can be improved. Participants will explore the specific kinds of analytical frameworks and tools that researchers can bring to the table that will be helpful in identifying adaptation priorities, ensuring inclusion in adaptation interventions, and avoiding maladaptation. Likewise, the session will explore the challenge of producing research that enables practitioners to address complex forms of social vulnerability to climate change. How might researchers and practitioners deep their understanding of the interconnections, synergies and trade-offs of adaptation across environmental, livelihood, technological, and institutional dimensions.

### Authors and Partner organizations

**Chair and moderator:** Thomas A. Smucker, Ohio University (USA)

Alan Ouku, Konkuey Design Initiative (Kenya)

Maria Mugeni, MS candidate (Geography) Ohio University (USA)

Erick Valentine, Tanzania Private Forestry Organization

Filemon Eliamini, MA candidate (Geography), Ohio University

Fatou Jeng, Clean Earth Gambia (the Gambia)

Muhammed Ceesay, MA candidate (Geography), Ohio University (USA)

Mohammed Basit Jibreel, Urbanet (Ghana)

Abdul-Salam Jahanfo Abdulai, MA candidate (Geography), Ohio University (USA)

Thursday 05 .....  
16:00-17:30 .....

session 689

Adaptation Choices

### Objective and outcome

Building on IISD's extensive experience in supporting country programs through its National Adaptation Plan Global Network (NAP GN) forum in developing NAPs and its link to VRAs, the session aims to build on past experiences to highlight and bridge the gaps between academic and on the ground practices in implementing VRAs of National Adaptation Plan.

## What science doesn't say: Implementing vulnerability assessments as part of the NAP process

### Introduction

Vulnerability Risk Assessments (VRAs) are an essential tool to help assess the potential stresses and impacts on a social-ecological system resulting from climate change and can, therefore, help implement effective strategies to adapt to change (Fakhruddin et al., 2020). VRAs offer a broad scope and can encompass community level assessments to national adaptation planning processes. If done properly they can help prioritise adaptation action and when repeated can be a valuable contribution to the planning process and MEL systems (Fritzsche, 2014). Countries are now focusing more and more on using VRAs for National Adaptation Plan (NAP) prioritization. Currently the conceptual framing of VRAs and their approaches present a gap in how they are implemented in theory and in practice.

### Problem statement

National systems vary from country to country and are influenced by multiple factors when it comes to implementing VRAs. These can include but are not limited to lack of capacities to conduct VRAs, complexity of government systems, poor governance and disconnected regional boundaries, lack of data or challenges in the acquisition of data across scales, and challenges in upscaling or down scaling VRAs, are some on-the-ground realities that countries face.

In particular, climate change planning decisions consider spatial context that require engagement of actors across different scales of governance. This constitutes the engagement of decision makers as risk managers and climate adaptation specialists (Connelly et al., 2018). The component of scale adds complexity to decision-making as it involves different stakeholders with varying degrees of capacities to grasp a common understanding and where resource use and access are navigated by jurisdictional control. Definitions of VRAs can differ across different sectors and scales (Wolf 2011).

Under the above premise, the framing of VRAs from science to practices varies in its conceptual understanding. Academic approaches for implementing VRAs often require adjustments to conform to local realities. Successful application of VRA approaches require understanding of the context. In theory, VRAs can provide a compartmentalized process of conducting and assessing vulnerabilities. However, when delivered appropriately within political realities, VRA are a pillar of adaptation planning and can serve as a basis for MEL systems.

### Participants

Emilie Beauchamp, Lead Monitoring, Evaluation & Learning for Adaptation to Climate Change, IISD (Lead author and presenter).

Kouassigan Tovivo, Director - Lomé Office / Senior Implementation Specialist - Climate Finance & Adaptation, Climate Analytics (co-author)

Friday 06 .....  
8:30-10:00 .....

session 814

Adaptation Choices

## Advancing co-production and use of climate risk information for nature-based solutions

With implementation adaptation activities ramping up, practitioners and decision-makers need significantly improved climate risk information that can reliably address emerging challenges. It is vital that co-production is deeply embedded in cutting-edge science with stakeholder engagement being at the center of climate risk information development. Effective communication and improving the usability of climate risk information also remain essential. This session will focus on understanding climate risk information needs, re-search gaps and needs, and ways in which climate risk can be integrated into the planning, design, and development of nature-based solutions for adaptation, as well as policy integration. The session will bring together lessons learned from on-the-ground implementation about the ways in which nature-based solutions can be harnessed to build resilience and strengthen climate adaptation. The session will identify outcomes of activities implemented by practitioners and cutting-edge climate science information for stakeholder use. The session will serve as a platform to demonstrate nature-based solutions from the field, showcase the latest science, identify challenges and propose research needs. It will highlight experiences from the high mountain regions of Afghanistan, the Aral sea region in Uzbekistan, and coastal and marine regions in Mesoamerica from projects being implemented by Columbia University, NASA, UNDP, WWF, WCS, and Environment Management Group.

### Authors and Partner organisations

#### Partner organizations

Columbia University, NASA Goddard institute for Space Studies (NASA GISS), World Wildlife Fund (WWF), Wildlife Conservation Society (WCS), United Nations Development Programme (UNDP)

#### Authors/presenters

Introduction to the session – Cynthia Rosenzweig (NASA GISS and Columbia University)

Developing Climate Risk Information for the Implementation of Adaptation Activities –Manishka De Mel (Columbia University and NASA GISS)

Integrating Climate Risk Assessment and Natural Capital Modelling to Support Planning for Ecosystem-based Adaptation in Mesoamerican Reef [2-part presentation] – Ryan Bartlett (World Wildlife Fund) and Alejandra Calzada (WWF Mesoamerica)

Resilient Coastal Development Belize – Johanna Lovecchio (Columbia University)

Catchment investment programs: designing nature-based solutions for agropastoral resilience in Southern Africa – Radhika Dave (United Nations Development Programme)

Mapping and addressing climate, ecosystem, biodiversity, and socioeconomic vulnerability in high mountain regions of Afghanistan [2-part presentation] – Gautam Surya and Sorosh Poya Faryabi (Wildlife Conservation Society)

Structured Discussion – Johanna Lovecchio (Columbia University)



## Tuesday 03 - room 520F

13:30-14:30

### Innovation in adaptation: What is it?

A dynamic session curated by the Adaptation Fund to discuss a global vision for innovation in service of adaptation to climate change. The session will offer a variety of perspectives explored by a panel of thought leaders on the questions of:

- What is innovation in context of adaptation?
- Why must we innovate?
- In the context of adaptation, where does innovation come from?
- At what scale does innovation in adaptation happen?
- Where should more focus and support go?
- Whose responsibility is it?

The session consists of a speaker introduction round, followed by facilitated discussion amongst the panel in response to the key questions. Alternative viewpoints will be explored and the essence of innovation in adaptation unpicked.

Speakers include voices from international organisations, policy, locally-led innovation, and the scientific community.

14:30-15:30

### Innovation in adaptation: What does it look like?

An inspiring session on real world applications of innovation in adaptation. Organizations on the cutting edge of adaptation projects describe what innovation on the ground looks like. In this interactive session audience participation is encouraged as speakers are placed around the room to facilitate group conversations. Questions to be explore are:

- What are some of the best examples to-date?
- What are the main challenges and/or opportunities?
- What could innovation actors (financiers, policy-makers, private sector, etc.) do better to support adaptation?
- Learning from experience: how can we better leverage failure?

Highlights from the in-room discussions will be brought to the stage by the speakers to highlight key ideas and thought-provoking comments. The session will culminate with a lightening round of speaker’s best examples of innovation in adaptation to date.

Speakers include voices from the Adaptation Fund’s National Implementing Entities, global innovation programmes, foundations, humanitarian organisations, and world leading Universities.

## Wednesday 04 - room 520F

13:30-14:30

### The Innovation Process: How is it done?

Innovation is a process that drives advancements in all spheres of society and economy involving a range of stakeholders that must collaborate to serve today’s and tomorrow’s needs. There is a greater demand than ever for integrated solutions that can respond to complex societal challenges. As such, there are certain well-understood elements in the innovation process.

In this high level and diverse panel-led session innovation actors speak about their experiences making change, and shifting to new paradigms. The key questions to be explored are:

- What is innovation?
- What is the process like?
- How can it work for adaptation?
- Is innovation really the answer or should we look to existing solutions?
- Innovation entails risk and failure. Can we afford to fail?

Speakers include voices from public private partnerships, government, Silicon Valley, third level innovation hubs, acceleration programmes, and Global South and European networks.

14:30-15:30

### Locally led innovation: What does it look like?

Adaptation in hyper local contexts through real-life stories of innovators

Bringing voices from the Global South, to the forefront in pursue of climate justice, equity, diversity and inclusion. This session will bring forth the lessons directly from grantees of Adaptation Fund Climate Innovation Accelerator (AFCIA, a partnership of Adaptation Fund, EU, UNDP, UNEP and CTCN) who have the potential to demonstrate a breadth of Locally Led Adaptation (LLA) initiatives at different scales.

Two of the key LLA principles are the amplification of agency of the most vulnerable, and the role of patient funding in LLA Initiatives. This session will explore these two principles through the experience of the Adaptation Innovation Marketplace (AIM), specially through AFCIA grant makers and funders using knowledge exchange through a moderated dialogue between funders, grantees and audience members.

Key questions:

- What is LLA and why is it such an important adaptation action?
- What are the lessons, challenges and opportunities as experienced by the AFCIA grantees?
- What are the models of finance for innovation in adaptation?
- How can we continue to adapt and grow this success?

The session will be a facilitated two-way knowledge exchange session between funders of adaptation initiatives and their grantees in the panel, as well as the audience members.



Thursday 05 - room 520D

13:30-15:30

## Innovation in adaptation: What is the future?

Given the trajectory of climate change, the need for adaptation will only grow. In this session, curated by the Adaptation Fund, key opinion holders discuss how to accelerate successful adaptation through innovation and what are the latest trends and likely future directions in adaptation.

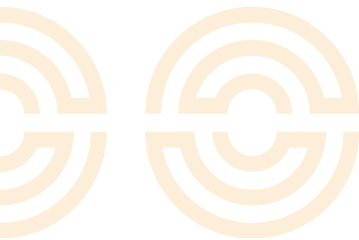
The session will begin with thought provoking inputs and a moderated panel discussion with researchers, communities, authors, and innovators. The topic will revolve around questions on the future of innovation in adaptation:

- What are the new frontiers?
- Is the answer technology, society or nature?
- What is the role of the government / private sector / International finance (grant and lending) institutions? Who are the other key actors?
- Society and the power of citizens and communities: what will be the role of individuals and communities?

Keeping our focus on action, the power of partnerships will then be explored through a series of talks led by the Adaptation Fund’s partners.

The session will culminate in a facilitated networking event to allow speakers, audience members and contributors from across the Adaptation Fund’s sessions to interact and connect.

Join this session not only to be inspired but also to contribute, meet others, and connect with innovation for adaptation.



# International Forum on Agroecosystem Living Labs

This first International Forum on Agroecosystem Living Labs (IF-ALL) marks five years since the agroecosystem living lab concept was first presented by Canada to the Ministers of Agriculture of the G20 in 2018. Agriculture and Agri-Food Canada (AAFC) and France’s National Research Institute for Agriculture, Food and Environment (INRAE) are co-hosting this International Forum. The Forum features discussion panels and parallel sessions of scientific papers to establish state-of-the-art practices, share lessons learned from case studies and address challenges facing the international agroecosystem living lab community.

Wednesday 04

8:30-12:00

## Opening Plenary - room 520E

IF-ALL participants are invited to attend the Opening Plenary session that will feature opening remarks of the Chief Scientists from Canada and France, and keynote presentations on the concept and value of Agroecosystem Living Labs.

Chairs: François Chrétien (Director, Research Development and Technology, AAFC) and Christian Huyghe (Scientific Director of Agriculture, INRAE)

Opening remarks. Gilles Saindon (Assistant Deputy Minister, AAFC) and Philippe Mauguin (CEO, INRAE)

Why Agroecosystem Living Labs? / Forum Overview. Javier Gracia-Garza (AAFC, retired), Chris McPhee (AAFC), and Muriel Mambrini-Doudet (Institut de recherche et développement, France)

## Theme 1 - room 520E

### “Promoting innovation through living labs”

#### 9:05 Presentations

This session will focus on the use of the agroecosystem living labs approach to promote agricultural innovation as a way to establish productive and sustainable agroecosystems. Presenters will capture the experience of farmers, scientists, and others using an open innovation approach, capitalizing on the potential of local knowledge, and promoting the dialogue between scientific and empirical knowledge. It will also explore new ways to enable open innovation systems with policy makers.

Chair: François Chrétien (AAFC)

**9:10** Invited Speaker: Lessons from building Agriculture and Agri-Food Canada’s network of agroecosystem living labs. Chris McPhee, AAFC, Canada

**9:25** Invited Speaker (virtual): Living Labs as a key instrument for the transition to sustainable farming: A European Union perspective. Kerstin Rosenow, European Commission, Belgium

**9:40** Ecological intensification of livestock production in native grasslands: operationalizing «win-win» opportunities in South America’s Pampas and Campos grasslands. Santiago Dogliotti , Univesidad de la República, Uruguay

**9:55** Developing the Organic Field Crop Sector Using the Living Lab Approach: A Story from Abitibi-Témiscamingue (Québec, Canada). Stéphanie Lavergne, Université du Québec en Abitibi-Témiscamingue, Canada

**10:10 Break**

Wednesday 04 8:30-12:00 (suite)

**10:30** Agroecology Virtual Research Environment as an example of collaboration between Living Labs and Research. Jose-Manuel Avila-Castuera, LifeWatch Eric, Spain

**10:45** FOod REsilience Living Lab (FORELL): a proposed Soil-Food Living Lab linking soil health to food sustainability and climate adaptation. Achilleas Zalidis, University of the Aegean, Greece

**11:00** Breathing life into rangeland living laboratories in the Western US. Hailey Wilmer, U.S. Department of Agriculture, Agricultural Research Service (USDA-ARS), USA

#### 11:15 Thematic Discussion

Facilitator: Chris McPhee, AAFC, Canada

All speakers, presenters and attendees are invited to engage in a guided interactive discussion on the theme of promoting innovation for transition through living labs.

Questions for discussion:

- What kind of outcome would you expect if you were to be engaged in an agroecosystem living labs?
- What are the best practices, tools or research needed to support the co-creation process in an agroecosystem living labs?
- What is the biggest challenge participants face when using a living lab approach?

#### Virtual Posters

Living in an Agroecosystem Living Lab: Participant Reflections and Experiences from Canada’s Living Laboratories Initiative. Margaret Bancerz, AAFC, Canada

Scientific interest groups in France: an innovative multi-stakeholder initiative for collaborative research in agricultural sectors. Frédérique Angevin, INRAE, France

FInAL: - Facilitating insects in agricultural landscapes: A project to demonstrate the impact of landscape transformation on biodiversity and socio-economic aspects with ALLs in Germany. Stephanie Holzhauser, Thuenen Institute, Germany

From waste land to retention ecosystem, a successful living lab adventure. Jonathan Lafond, AAFC, Canada

ADOPT model predictions in a Canadian context: Estimating future beneficial management practice adoption rates. Margot McComb, AAFC, Canada

‘Social Network Webbing’ on-farm experimentation and the co-production of cropping system innovation research in the Pacific Northwest. Carol MacFarland, Washington State University/USDA-ARS, USA



Wednesday 04

8:30-12:00

## Theme 2 - room 520F

### “Fostering transitions toward sustainable food systems through living labs”

#### 9:05 Presentations

his session will focus on the use of the agroecosystem living labs approach to foster transitions toward sustainable food systems, including for food production, transformation, and consumption.

Chair: Christian Huyghe, INRAE, France

**9:10** Invited Speaker: ALL-Ready: Living labs for agroecology transition. Heather McKhann, INRAE, France

**9:25** Invited Speaker: Network for Integrated Resilience Agricultural Research (NIARR): Collaborations on the resilience of agricultural systems. Shana Sundstrom, University of Nebraska-Lincoln, Center for Resilience in Agricultural Working Landscapes (CRAWL), USA

**9:40** Rethinking the support of rural actors in Africa: The Living Lab approach as a lever for territorial agroecological transitions? Amandine Hertzog, French Agricultural Research Centre for International Development (CIRAD), France

**9:55** A Conceptual Framework of Living Labs for People: Fostering Innovations for Low-Emissions Food Systems and Social Equity. Ryan Nehring, International Food Policy Research Institute, USA

#### 10:10 Break

**10:30** Lessons from the agroecological transition through the implementation of the RVG as living laboratories: case analysis in Boyacá-Colombia. July Carolina Rojas Gómez, Universidad Nacional de Colombia, Columbia

**10:45** Sustainability by chance – consumer co-creation yielding unintended environmental benefits for the food system. Experiences of EIT Food RIS Consumer Engagement Labs project. Krzysztof Klincewicz, Faculty of Management, University of Warsaw, Poland

**11:00** Farmer-led learning: Understanding sustainable transitions in Ontario’s potato sector. Charlotte Potter, University of Guelph, Canada

#### 11:15 Thematic Discussion

Facilitator : Muriel Mambrini-Doudet, Institut de recherche et développement, France

All speakers, presenters and attendees are invited to engage in a guided interactive discussion on the theme of fostering transitions toward sustainable food systems through living labs.

Questions for discussion:

- What is the most important change that you would like to see to support transitions to sustainable food systems?
- What contribution do you think living labs can make to accelerating the transitions toward sustainable food systems?
- What are the most urgent research questions that you think should be addressed in a living lab to foster transitions?

Wednesday 04 8:30-12:00 (suite)

#### Virtual Posters

How can living labs contribute to co-create transition pathway towards chemical pesticide-free agriculture by 2050: the example of “la fabrique des transitions en Bergeracois” and wine production. Claire Meunier, INRAE, France

Participatory modeling of soil carbon dynamics following the adoption of agroecological systems in Quebec, Canada. Sylvestre Delmotte, Consultant, Canada

Holos Version 4: A Whole-Farm Model for Estimating Greenhouse Gases and Soil Carbon. Sarah Pogue, AAFC, Canada

Unique Opportunities for Sustainable Agriculture in Alberta through the Alberta AgriSystems Living Lab. Brian Karisa, Alberta Beef Producers, Canada

Resilience Landscapes as a Vehicle Of Change In Local Food Systems. Vimbayi Grace Petrova Chimonyo, International Maize and Wheat Improvement Center (CIMMYT), Zimbabwe

17:00-19:00

## Networking Activity - Location TBD

### Omics To Close the Loop X Adaptation Futures/International Forum on Agroecosystem Living Labs

We invite the agroecosystems living labs community to a networking event to launch the Genome Canada and Génome Québec-supported project «Omics to Close the Loop/Les Sciences omiques pour boucler la boucle». This is a unique opportunity to create links between researchers, collaborators and partners in this project, which includes a living lab component, but also to further network between IF-ALL participants.

Register to reserve your place.



Thursday 05

14:00-17:30

Theme 3 - room 520E

“Empowering participation, strenghtening participatory governance in living labs”

14:00 Presentations

This session will focus on empowering participation and strengthening participatory governance in agroecosystem living labs, including encouraging the inclusion of all relevant partners and identifying best practices to work on shared goals with a prospective vision.

Chairs: François Chrétien, AAFC, Canada

**14:05** Invited Speaker: Living Lab approaches enrich INRAE strategy for research, partnership for innovation and support to public policies. Christian Huyghe, INRAE, France

**14:20** Democratizing interactions with and among food system actors in a newly set-up Agroecology Living Lab in a Mediterranean area. Luca Colombo, Italian Foundation for Research in Organic and Biodynamic Agriculture (FIRAB), Italy

**14:35** Empowering communities to build regional resilience: A case study of the Goulburn Murray Irrigation District in Australia’s Murray-Darling Basin. Ruby Olsson, Australian National University (ANU), Institute for Water Futures, Australia

**14:50** Co-design of insect-friendly agricultural landscapes – Results and experiences from a transdisciplinary process in three German landscape labs. Maria Busse, Leibniz Centre for Agricultural Landscape Research (ZALF), Germany

**15:05** Open Innovation and transdisciplinary for territorial transitions: the case of the TETRAE Program in France. Romain Melot, INRAE, France

**15:20** Occitanum, an archipelago Living-Lab to evaluate and co-design digital technologies as enablers of the agroecological transition. Véronique Bellon-Maurel, French National Institute for Agriculture, Food and Environment - Convergences in Digital Agriculture Institute (INRAE-DigitAG), France

15:35 Break

**16:00** Invited Speaker: Bridging Land and People to Secure our Future. Roger Daniels, Mistawasis Nêhiyawak, Living Lab – Bridge to Land Water Sky, Canada

Thursday 05 14:00-17:30 (suite)

16:15 Thematic Discussion

Facilitator: Muriel Mambrini-Doudet, Institut de recherche et développement, France

All speakers, presenters and attendees are invited to engage in a guided interactive discussion on the theme of empowering participation of every single actor in an agroecosystem living lab (such as farmers, scientists, policy makers, partners and citizens) to strengthening participatory governance in living labs.

Questions for discussion:

- Is empowerment in a living lab comparable or different from what you have already experienced? Do you have any tips to support such empowerment?
- Do you have advice on how to ensure the engagement of the diversity of partners needed in the co-creation process? Who is to be engaged?
- If you had to choose the three most important factors to empower participation in a living lab, which ones would you choose? These could be skills, knowledge, values, etc.

Virtual Posters

Affordances and improvements of design thinking to support farmers in the process of adaptation to climate change. Diane Pruneau, Université de Moncton, Canada

Effects of Organic Amendments on Soil Health indicators in an Indigenous Farm in the Northern Peace River Region of Canada. Bharat Shrestha, AAFC, Canada

A Conceptual Framework for Enhancing Resilience to Climate Change in Ghana’s Agriculture and Food Sector through Improved Climate Information Accessibility. Mark Atta Mensah, Department of Computer Science, University of Ghana, Legon, Ghana

Fostering Collaboration and Innovation for Island Agriculture: The Living Lab – Atlantic Story. Emily K. Murphy, East Prince Agri-Environment Association, Canada



Thursday 05

14:00-17:30

## Theme 4 - room 520F

### “Evaluating success in living labs”

#### 14:00 Presentations

This session will focus on evaluating success in living labs using natural and social indicators. Topics will include the evaluation of processes, innovation outcomes, and impacts beyond the living labs.

Chairs: Javier Gracia-Garza (AAFC, retired)

**14:05** Invited Speaker: Agriculture Living Labs across LTAR and other USDA ARS Research Networks. Marlen Eve, United States Department of Agriculture (USDA), Agricultural Research Service (ARS), USA

**14:20** Knowledge gaps in evaluating the effectiveness and impacts of Living Labs focused on environmental and agricultural sustainability. Vivian Nguyen, Carleton University, Canada

**14:35** A Multilevel Evaluation Approach of Agroecological Living Labs: The Occitanum Case. Alexia Gobrecht, French National Institute for Agriculture, Food and Environment (INRAE), France

**14:50** A customisable tool for monitoring and evaluating transformational change in European Agri-Food Living Labs: ATP-in-ALL «Analysing Transformation Processes within Agroecosystem Living Labs”. Erika Angarita, Thuenen Institute, Germany

**15:05** Place-based evaluation in Living Labs: designing tools for collective learning. Erwan Sachet, French Agricultural Research Centre for International Development (CIRAD), France

**15:20** Innovation through collaboration: Co-developing ecohydrological indicators in a US rangeland to balance livestock production and conservation in a changing climate. David Hoover, U.S. Department of Agriculture, Agricultural Research Service (USDA-ARS), USA

#### 15:35 Break

**16:00** Invited Speaker (virtual): Agroecosystem Living Labs approach: INTA’s strategy to promote territorial innovation processes in Argentina. Eduardo Cittadini, Instituto Nacional de Tecnología Agropecuaria (INTA), Argentina

#### 16:15 Thematic Discussion

Facilitator: Chris McPhee, AAFC, Canada

All speakers, presenters and attendees are invited to engage in a guided interactive discussion on the theme of evaluating success in living labs including processes, innovation outcomes, and impacts beyond the living labs.

Questions for discussion:

- What would be your advice for setting up a monitoring or evaluation framework to follow the outcomes of a living lab, considering the unpredictability of the co-creation process and the long-term impact of changes in the agroecosystem?
- How would you measure the environmental, social, economic and cultural impacts of the living lab?
- If you had to choose only three specific indicators to measure the impact of the agroecosystem living lab, which ones would you choose?

Thursday 05 14:00-17:30 (suite)

#### Virtual Posters

Agroecosystem Living Lab, Methodological Proposal for Impact Evaluation. Pablo Andrés Curarello, INTA, Argentina

Using agro living labs as a transition tool: how to measure outcomes? The example of prudent antimicrobial use in European countries and livestock sectors. Florence Beaugrand, Oniris-INRAE, France

## 17:10 Closing Plenary - room 520E

All attendees are invited to join us in Room 520E for the Closing Plenary of the International Forum on Agroecosystem Living Labs

Highlights from oral presentations, posters and group discussions will be summarized as well as reflection on the future of agroecosystem living labs at Global scale. Information and logistical details on the field tour organized by the Union des producteurs agricoles du Québec (UPA) will also be provided.

Chair: François Chrétien, AAFC, Canada

An introduction to Living Lab Québec and field visit instructions. Chantal Foulds (Union des producteurs Agricole, Canada)

Forum Summary. Muriel Mambrini-Doudet (Institut de recherche et développement, France) and Javier Gracia-Garza (AAFC, retired)

Reflection on the future/next steps. François Chrétien (AAFC) and Christian Huyghe (INRAE)

