

## IALE 2023 World Congress, Nairobi, Kenya

(10th – 15th, July 2023)

### Organized Symposium/Lightning/Panel Sessions

#### Panel Sessions (8)

**Title:** What gender transformative adaptation strategies can build climate resilient livelihoods in sub-Saharan Africa?

**Section Format:** Hybrid

**Organizer(s):**

Dr. Thomas Kibutu - Kenyatta University, KU-SPARC Project,  
Kenya

Dr. Pacificah Okemwa - Kenyatta University, Kenya

Dr. Susan Mwangi - Kenyatta University, Kenya

Dr. Kennedy Gitu - Kenyatta University, Kenya

Dr. Fiona Ngarachu - United States International University in Africa

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**Sub-Theme:**

**Description**

Sub Saharan Africa has suffered from the vagaries of climate change and variability adversely affecting various sectors, in particular agriculture. It is widely acknowledged that agriculture is the mainstay of livelihoods in sub-Saharan Africa. Climate change and variability in this region has been characterized by extreme weather conditions resulting in prolonged droughts, floods and pest infestations. This has been exacerbated by conflicts and governance issues leading to displacements and migrations of pastoralists and agro-pastoralists. Loss of property, death and destruction of property from such an environment disproportionately affect women, girls, the elderly and people with disabilities. Vulnerable members of the communities are particularly disadvantaged due to among others, the gender inequalities. This panel will consider how climate change and variability differentially impact people of all ages and gender with specific reference on the agricultural sector. In particular it will focus on how climate resilient adaptation strategies can be enhanced for livelihoods.

The panellists are drawn from both climate and gender experts. We welcome presentations focusing in addressing the following questions:

- How is climate change affecting livelihoods in sub-Saharan Africa
- What climate adaptation strategies exist?
- What possibilities in developing a gender transformative framework?

We aim at a collaborative session benefitting from the six panel presentations comprised of both climate and gender experts. It is expected that the participants will bring out the gender transformative adaptation strategies that can build climate resilient livelihoods in sub-Saharan Africa.

**Title:** Translating the post-2020 Global Biodiversity Framework (GBF) into local practices: Towards transformative biodiversity conservation governance in Africa

**Section Format:** Hybrid

**Organizer(s)**

Dr. Margaret Owuor and Dr. Van Nguyen, Wyss Academy for Nature at University of Bern, Switzerland.

Dr. David Obura, CORDIO East Africa

Dr. Gretchen Walters, Institute of Geography and Sustainability, University of Lausanne, Switzerland

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**Sub-Theme:**

**Description**

Despite increasing policies and actions to support biodiversity conservation over the last decade, sadly, none of the 20 Aichi Biodiversity Targets agreed upon by Parties to the Convention on Biological Diversity (CBD) have been fully achieved globally. The post-2020 Global Biodiversity Framework (GBF) presents a new strategy to jointly safeguard nature and secure our common future, coming out with a lot of hope to offset the failure of the previous targets.

Among the 21 targets of the GBF, Target No.3 – ‘ensure that at least 30 percent globally of land areas and sea areas, especially areas of particular importance for biodiversity and its contributions to people, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures and integrated into the broader landscapes and seascapes, has generated widespread attention by different actors such as the G7 and INGOs who quickly translated this target into the ‘30 by 30’ campaign, with the endorsement by over 100 countries worldwide.

A substantial and growing literature seeks to identify how and what challenges emerge in translating the overall GBF into local practices. Confirming that target 3 is essential as part of the overall strategy, many take a step back to ask why the previous international conservation commitments failed and what critical lessons can be for moving forwards with the new conservation strategy.

At the same time, there are also a lot of critical debates surrounding the ‘30 by 30’ campaign. Some point out that ‘30 by 30’ may be too ambitious and poses the question of safeguarding both nature and human well-being. When each piece of land/ocean has its current purpose, increasing current protection from 17% of lands and 8% of seas to 30% will drive dramatic changes in land and sea use across all scales to convert current

use regimes to new conservation areas. Some stakeholders and organizations campaigning against '30 by 30' characterize it as the largest "green/blue grab" of land in history because many social justice issues of the impacts of conservation on local livelihoods and culture still remain unaddressed in many places, despite the implementation of many social safeguard initiatives. Others argue that the '30 by 30' campaign could be very problematic in pushing for just a single solution, especially if other GBF targets are sidelined in the process

In this symposium, we thus aim to bring together both researchers and practitioners to exchange and learn through case study presentations in which they will:

- Identify the political and legal contexts favor or disfavor the implementation of these strategies.
- Describe and characterize what actors are thinking when they adopt the international targets into various local contexts.
- Assess what governance arrangements and strategies by actors can support achieving the target and safeguarding human-nature co-benefits under the new GBF.
- Detail the challenge that emerge when implementing these strategies, and how actors address them

Africa is famous for its rich and varied biological resources. It is no wonder that the continent has eight of the 34 biodiversity hotspots in the world and many other conserved areas. In the panel discussion, we want to look closely at such practices and associated issues and processes and discuss ideas and integrative solutions. We are interested in presentations and discussions of case studies in Africa, specifically studies/observations/experiences with a thematic focus on conservation governance practices. Our goal for this symposium is to set the groundwork for a co-authored synthesis article addressing governance issues of biodiversity conservation from the ground up to achieve this ambitious target across Africa. This snapshot of the good, bad, and ugly will then let us identify innovative policy recommendations on governance arrangements and practical governance capacity-building programs that can help render the maximum conservation benefit for nature and people through transformative governance.

**Title:** Toward equitable publishing in landscape ecology: identifying barriers and solutions

**Section Format:** Hybrid

**Organizer(s):** IALE Diversity and Inclusion Committee

**Primary contact:** Jennifer Costanza, [jennifer.costanza@usda.gov](mailto:jennifer.costanza@usda.gov)

**Sub-Theme:****Description:**

Publishing in peer-reviewed scientific journals is a critical aspect of many landscape ecologists' work, and is a vital way in which research is communicated among members of the scientific community. As the number of journals available for publishing scientific research has increased in recent years, more options are available for landscape ecologists to publish their work. Yet, the number of challenges involved in publishing have remained or even increased for many groups of people and in many regions of the world. Biases are inherent in the peer-review process, and have been well documented in scientific publishing. Biases against early career researchers, women, and language (i.e. non-English speakers) are particularly apparent. Publication fees can also be insurmountable for many researchers, including those from low- and middle-income countries. Obtaining assistance with English translation can also be a financial or logistical challenge. These challenges can present substantial barriers to publication for many landscape ecologists and result in a bias in the world's body of scientific literature in landscape ecology toward researchers in well-represented groups, those with established academic networks, and/or those from the Global North. This session will focus on a discussion of these and other challenges for landscape ecologists and potential solutions to them. We will feature a panel of landscape ecologists involved in various aspects of publishing, including journal editors, editors of special issues that focus on publishing by historically marginalized groups, as well as representatives from publishers. We will begin the session with a short statement from each panelist on barriers and solutions to equity in publishing. Then, the remainder of the session will be a discussion with questions and answers from the moderators and the audience. We plan to write a white paper or journal editorial piece on the issues and solutions identified in this session.

**Title:** Urban Agriculture Diversity and Food Security

**Section Format:** Hybrid

**Organizer(s):**

Giacchè G – AgroParisTech, Paris - France

Lelièvre A – AgroParisTech, Paris - France

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**Sub-Theme:**

**Key words:** urban agriculture, food security, territorial resilience, socioecological transition

**Description:**

With urbanization, the concentration of population within urban settings and the economic polarization, contribute to generating economical et spatial inequality. Recently, the health crisis of Covid19 has amplified within the cities inequalities regarding access to food but also to green spaces and nature in general (Nikolli and Girault, 2021). This situation has revealed anincreasing demand for implementing urban gardens, and interest for self-production. In particular, it is clear that we need to construct territorial responses to contribute to a resilience not based on urgency. Other considerations bring to light the necessity of implementing fresh fruits and vegetables production in the cities as these produces are mostly absent from food banks with its, sometimes inadequate, distributive aspect. The heat island effect also enables the local production of "exotic" food.

In a way, urban agriculture (UA) in its diversity can respond to these expectations (Lal, 2020). A wide diversity of UA forms has been developed (Aubry et al., 2022) contributing differentlyto food supply. Although, a greater contribution of family or private gardens more than community gardens is frequently highlighted (Pourias, 2014; Darly et al., 2021), the participation in these projects leads precarious people to enhance their diet, increasing the consumption of fruits and vegetables and becoming actors of their diet (Darmon et al., 2018). Moreover, recent studies demonstrate that projects combining food production and processingimprove psychosocial skills (decision-making, stress management...) of precarious people as well as being a vector of emancipation on food issues and more (Scherer, 2018). It also enables inhabitants to manage surpluses at some periods and to limit wastage. We would like to interrogate the capacity of forms of urban agriculture to participate in food, ecological and social resilience within the city. Who are the actors, policies, spaces and devices activated to build a more livelihoods cities?

**Title:** How to unlock the transformative potential of multilevel and integrative landscape approaches?

**Section Format:** Hybrid

**Sub-Theme:** Drivers of landscape change and sustainability at multiple scales.

**Organizer(s):**

Karla Locher-Krause, Helmholtz Centre for Environmental Research – UFZ- Germany

Isabel Loupa-Ramos, University of Lisbon, Portugal.

Francesco Sica, Trento University, Italy

Maria Rosario Partidario, University of Lisbon, Portugal.

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**Description:**

Transformative change has been widely recognised as the paradigm shift needed to tackle the multiple crises we currently face as humanity. Despite its importance, the growing body of literature, and the urgent calls from the international community, it is still blurry how we could enable, accelerate or achieve cross-sectoral transformations. Landscapes-related decisions are characterised by multilevel processes that emerge from the interaction between multiple actors, processes, and institutions, from local to global levels. This makes them critical arenas for action where strategies to leverage transformative potential can be explored and agents of change enabled. In this session, we want to invite the IALE community to engage in a dynamic and open discussion on how to navigate, nudge and nurture transformative change from a landscape perspective. We want to explore questions such as: what kind of knowledge is needed to design strategic interventions towards transformations at the landscape level, how spaces can be created for delivering just transformations, as well as which actors, instruments and governance modes are required in order to achieve the future that we want (based on Wittmer et al. 2021). For the purpose of the discussion and acknowledging that there are definitions from different disciplines, we will use the IPBES GA definition that states that transformative change is "a fundamental, system-wide reorganisation across technological, economic and social factors, including paradigm, goals and values" (Diaz et al. 2019). As an example to stimulate the discussion, the Horizon Europe project BioValue project will be introduced.

This panel include 3 invited presentations plus open contributions from a broad range of theoretical, methodological approaches and empirical focus, as well as based on a review of existing evidence within and beyond Europe. The contributors will also be invited to collaborate on a joint scientific article as an outcome of the session.

**Title:** Landscape Approach to Wildlife Management in India: A review and where do we go from here?

**Section Format:** Hybrid

**Organizer(s):**

Ramesh Krishnamurthy<sup>1,2</sup>, Parabita Basu<sup>2</sup> and PV Karunakaran<sup>2,3</sup>

<sup>1</sup> Wildlife Institute of India, Dehradun, India

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**Sub-Theme:**

**Description:**

Landscape context for natural resource understanding and governance is increasingly being recognised across countries. Because of diverse wildlife species and their survival linked to human well-being, India is taking a lead role in taking wildlife conservation under a comprehensive framework. The National Wildlife Action Plan (2017-2031) underscores landscape approach to wildlife conservation as a key philosophy and action to advance national agenda. Although the concept of landscape approach can be traced to Sangam Literature (2000 old Tamil Literature), the modern approach to landscape management can only be traced to only last two decade. However, the concept of biogeographic zone based Protected Area management, biosphere reserves and watershed approach point to the intent of large landscapes and diverse land elements including multiple stakeholders. While the landscape science in India is rapidly evolving mostly around charismatic species and long-distance migratory species, a common framework for landscape approach is yet to be realized, though has been realized to be an important instrument to advance conservation agenda while balancing livelihood and development considerations. Therefore, in this session, which include few presentations followed by a panel discussion, we bring together professionals from around India, which represent the Indian Regional Association for Landscape Ecology (IRALE) and discuss the strategic actions forward to take the landscape agenda to advance the global targets such as SDGs, Aichi Targets, Climate Actions and Restorations. The discussion would result in planning a IRALE 2030 Vision and developing target oriented actions to deal with issues in various landscapes across the country, towards balancing conservation and communities.



**Title:** Resilience Academy – a transformative approach for climate resilient African landscapes in the nexus of open data, disruptive technologies, and community approaches

**Section Format:** Hybrid

**Organizer(s):**

Niina Käyhkö, Department of Geography and Geology, University of Turku, Finland  
Nelly Babere, School of Spatial Planning and Social Studies, Ardhi University, Tanzania  
Dorothea Deus, Department of Geospatial Sciences and Technology, Ardhi University  
Veerle Van Eetvelde, Department of Geography, Ghent University, Belgium  
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**Sub-themes:** geospatial data, Earth observation, AI, digital technologies, community mapping, socio-ecological systems, nature-based solutions, biodiversity, well-being, climate action

**Description:**

African landscapes are increasingly vulnerable to the impacts of climate change. Rapid and uncontrolled urbanisation, degradation of natural resources and loss of biodiversity combined with scarcity of up-to-date digital information and overcomplexity of current solutions are barriers to transformation. At the same time, the digital revolution and the skills and motivations of youths in Africa are key opportunities that could accelerate deployment of landscape services for improved climate resilience. Transformation can happen if nature-based landscape solutions are simple, affordable, locally produced and scalable.

Resilience Academy (RA) is a University-World Bank partnership model, which aims to improve climate resilience in Africa through co-creation of demand-driven, locally sustainable and scalable climate services operating in the nexus of the digital revolution, community engagement and local youth skills. It is an action-oriented and collaborative ecosystem, which thrives from open data, affordable technologies, skills development and inclusive participation of multiple actors. It builds particularly on the talent and commitment of citizens and young generation scientists to change the ways our landscapes and living environments are mapped, designed and managed for the future.

This session engages African and European landscape and geospatial scientists to think novel and actionable ways of managing African landscape challenges through combined value of citizen and student engagement, open data, earth observation, disruptive technologies and AI. What are the success factors and challenges, and what is the role of 21<sup>st</sup> century landscape ecology and landscape approaches in managing climate and biodiversity crises of Africa? The session will challenge the audience to discuss how nature-based solutions can truly become locally owned, impactful and sustainable and what other issues should happen in a society for such digital landscape innovations to form and scale across the continent.

**Title:** Resilience and security of biocultural landscapes of arid regions

**Section Format:** Hybrid

**Organizer(s):** Prof Gloria Pungetti, Universities of Sassari Italy and Cambridge, UK

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**Sub-Theme:** Building resilience and security: Food security, water security, and livelihoods

**Description:**

Oasis ecosystems strongly depend upon fresh water from rain, underground rivers or aquifers, which are crucial for irrigation. Water security is therefore vital in this type of landscape. Oasis ecosystems, in turn, provide ecosystem services, such as biodiversity and fresh water, as well as cultural services, such as livelihood of local people and traditional ecological knowledge (TEK). Livelihood security is another aspect to tackle in these landscapes, together with food security.

Biodiversity, microclimate and ecological services are the provisions to build upon in order to make these ecological landscapes resilient. On the other hand, TEK and cultural services surely facilitate the process, indicating for example efficient ways to plant trees in order to protect crops and water.

Firstly, patterns and interactions between the ecosystems of oasis ecological landscapes are crucial to understand the ways in which these interactions affect ecological processes. Secondly, oasis cultural landscapes are social-ecological systems, where social and ecological elements interact and contribute to human wellbeing.

The above topics form the backbone for discussion within the Panel, where studies and challenges related to oasis and biocultural landscapes of arid regions will be presented. The Panel aims to facilitate discussion on the above topics, in order to highlight opportunity for resilience and security in arid and dry landscapes.