Plenary speeches

The role of science and innovation in delivering the SDG – nature based solutions with trees

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The year 2023 "smashed" the record for the hottest year by a huge margin, providing "dramatic testimony" of how climate is threatening human and planetary health. We are dangerously close to – and in some cases, crossing – catastrophic ecological tipping points accompanied by major shifts in the global economy and an unacceptable increase in inequality. But it is not too late. Healthy agricultural and forested landscapes have a key role in changing these trends. They can deliver one-third of the climate solution – soil accounts for one-third of the global carbon stock and forests net-absorb 1.5 times more CO_2 than the US emits annually. Crucially, they can do that while enhancing the biodiversity and soils that underpin livelihoods and sustainable food production. While there are still unknowns that will benefit from science, we don't have the time to wait. We need to leverage cutting-edge research to drive tangible impact for communities and ecosystems. We need to implement projects around known solutions while embedding research to understand how to scale. The biophysical evidence is mostly there, the bigger unknown is the human side - people's behaviour. Research to understand how and why people can become change makers, what holds them back is crucial. We need to combine scientific expertise and analytical skills with exceptional communication skills to bridge gaps between research, policy, and practical implementation and we need to translate complex scientific concepts into compelling narratives for diverse stakeholders.

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Can biodiversity conservation provide a better life for conservation labourers?

Lerato Thakholi

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Political ecologists have convincingly shown that biodiversity conservation is yet another avenue for capitalisms expansion through -for instance- the commodification of wildlife, ecotourism and bioprospecting. Advancing these earlier observations, scholars are beginning to systematically analyse the role of workers in creating surplus value within conservation. Often silent in these analysis, however, is a critical look of how biodiversity conservation exploits workers racial and gender differences to accumulate value. Borrowing from feminist scholars conceptualisation of social reproduction and theorisations of racial capitalism I critically analyse the conditions of waged and unwaged conservation labourers in southern Africa's conservation landscapes. In doing so, I explore the question: Can biodiversity conservation provide a better life for conservation labourers?

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Rainfed agriculture – an essential pillar of sustainable and climate resilient food system

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Food systems need to become more productive and nutritious for a growing global population, whilst being environmentally sound, and withstanding climate change. Rainfed agriculture, today providing more than 60 % food, feed and fodder on crop and grazing and is therefore a critical production system that holds large potential to sustainably intensify globally and locally, but often lacking attention and investments. In this talk I will share analysis of 3 case studies from El Salvador, India, and Ethiopia, developed in partnership with SIWI, CRS, ICRISAT and partners, documenting rainfed systems intensification and scaling through soil and water management. The presentation will share area of data and knowledge limitations, and propose potentially essential topics of knowledge development for future acceleration of soil and agricultural water management in rainfed systems

Reference report Barron, Jennie, Anna Tengberg (eds). 2023. Rainfed systems intensification and scaling of water and soil management: four case studies of development in family farming. Technical Report. Swedish University of Agricultural Sciences (SLU) Uppsala DOI: https://doi.org/10.54612/a.4nbusqmc4l

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Beyond sustainable development in the era of planetary crises: Challenges and insights from Latin America towards deep green transformation

Johannes Waldmüller
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In the wake of accelerated global climate change and expanding civilisational crises, in my talk, I will address how ubiquitous Northern transitions to greener and more sustainable economies and lifestyles are taken up by diverse groups and societies in resource-rich regions of the global South.

To do so, I draw from my longstanding close engagement with Latin America, particularly its Pacific-Andean region. In this context, I will briefly outline the major climate change impact, translated into social, economic and political dimensions, this region is already facing and what can be learned from it elsewhere.

Looking then beyond predominant market-driven approaches and "liberal" perceptions of sustainability, I aim to describe the relevance of diverging understandings and conceptions of relevant climate action, adaptation and mitigation, such as Indigenous and Black-Andean "sustainability from below" through feminist readings of "socioecological care and reproduction".

Such understandings underpin the worldwide growing number of implemented Earth jurisprudence (rights of nature), but also discussions about *Buen Vivir/Vivir Bien* (good living), based on a different ontological status and biocentric conception attributed to vital ecosystems. Furthermore, they call for a shifted and embodied engagement with our sustaining surroundings through the acquisition of a transformed skills set, focused on encompassing care cultures. Altogether, a more encompassing conception of green transitions becomes identifiable by connecting key insights from the global North and South, which I termed "deep green transformation" (Waldmüller 2024 - DOI: 10.1080/17449626.2024.2379324) and which represents the overall backdrop to my keynote intervention.

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Agroecology and living well: Towards agri-food systems within the 'doughnut'

Johanna Jacobi
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Environmental sustainability and social justice are intrinsically linked: SDG1 aims to end poverty, SDG 2 aims to end hunger, recognising that both are only possible while conserving natural resources. However, food insecurity is on the rise again since 2014, and the Human Development Index (composed of life expectancy, education and income) is decreasing since 2019. A key criticism is the persistence of the economic growth paradigm, which still underpins the mainstream idea of progress by perpetuating overconsumption and prioritising luxury tastes over basic needs. Oxford economist Kate Raworth's 'doughnut' framework depicts an economy that respects the planetary boundaries while achieving basic needs coverage for all, meaning that certain sectors grow and expand, while others shrink or change significantly. If human wellbeing is understood in a multidimensional way, encompassing not only a material dimension, but also a cognitive dimension and a relational dimension, then it becomes clear that the quality of 'development' is as important as the quantity. This is particularly true for agri-food systems: As we already produce enough food for everyone but are unable to end hunger, the question should not be how much can be produced, but how much is needed (and of what, and where and by whom). Applying post-growth principles to agri-food systems requires a paradigm shift from efficiency to sufficiency, from extraction to regeneration, from accumulation to distribution, from private enclosure to commons, and from control to care. These principles are compatible with agroecological principles as formulated by social movements around the world, and, more recently, also by the FAO and HLPE. For example, agroecology contributes to regeneration by reducing external inputs and increasing agrobiodiversity. By strengthening the autonomy of farmers and their participation in decision-making, agroecology supports distributive justice, land, water, food and seed commons, and care over a technoscientific idea of external control. The plethora of agroecology examples around the world often have in common that they reconnect producers and consumers in more direct relationships by-passing concentrated power in the food system or finding new working models related to sufficiency such as the "half-farmer, half X" lifestyle. For these examples to scale up, out, and deep, a concerted effort is needed at all societal levels beyond a simplistic economic growth paradigm.

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Agroecology and sustainable resource management practices

Agroecology: Drivers of adoption, impact of practices and lessons learned