Mulungushi Conference Centre, Banquet Hall 1

ZAMBIA'S FIRST NATIONAL

AGROECOLOGY CONFERENCE

REPORT 2024

Agroecology for Inclusiveness, Social, Economic and Environmental Sustenance

Lusaka | 21 - 22 May 2024

ABSTRACT

This report summarises the key conclusions, proceedings and recommendations of **Zambia's First Agroecology Conference** on Agroecology for Sustainable Agriculture and Food Systems, which took place in Lusaka on 21 and 22 May 2024. The conference was organised by Participatory Ecological Land Use Management (PELUM) in collaboration with Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), the Food and Agriculture Organisation of the United Nations (FAO) and other partners, against the backdrop of the severe drought that affected Zambia during the 2023 - 2024 farming season as a consequence of climate change.

ACKNOWLEDGEMENTS

We extend our sincere gratitude to the chairpersons, speakers, participants and the organising committee of Zambia's First Agroecology Conference. Special thanks go to PELUM management and sponsors, including:

- *PELUM Zambia*
- *Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)*
- *Food and Agriculture Organisation of the United Nations (FAO)*
- *Bread for the World (Brot für die Welt)*
- *Embassy of Sweden*
- *Zambia Alliance for Agroecology and Biodiversity (ZAAB)*
- *FIAN International Zambia*
- *Caritas Zambia*
- *We Effect*
- *University of Zambia*
- *Government of the Republic of Zambia*

We are grateful for their hospitality and valuable support in organising this event and for their generous financial contributions.

All materials about the conference (including speakers' presentations and background papers) are available at PELUM website:

ACRONYMS

ACT	Agroecology Criteria Tool
CA	Conservation Agriculture
CABI	Commonwealth Agricultural Bureaux International
CoP	Conference of the Parties
COMACO	Community Markets for Conservation
CSO	Civil Society Organisation
CSO-SUN	Zambia Civil Society Scaling Up Nutrition Alliance
CTDT	Community Technology Development Trust
E-PICSA	Electronic Participatory Integrated Climate Services for Agriculture
FAO	Food and Agriculture Organisation of the United Nations
FAW	Fall Armyworm
FANSER	Food and Nutrition Security, Enhanced Resilience
FISP	Farmer Input Support Programme
FMSS	Farmer Managed Seed Systems
FRA	Food Reserve Agency
FSP	Food Security Pack
GCF	Green Climate Fund
GDP	Gross Domestic Product
GHGs	Greenhouse Gases
GHI	Global Hunger Index
GIC	Green Innovation Centres
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GMOs	Genetically Modified Organisms
GRZ	Government of the Republic of Zambia
GWP	Global Water Partnership

HLPE	High Level Panel of Experts
ICIPE	International Centre of Insect Physiology and Ecology
KATC	Kasisi Agricultural Training Centre
KHSA	Knowledge Hub for Organic Agriculture in Southern Africa
MMD	Movement for Multi-Party Democracy
MNCs	Multinational Corporations
NAP (1)	National Adaptation Plan
NAP (2)	National Agriculture Policy
NDCs	Nationally Determined Contributions
NGO	Non-Governmental Organisation
PACO	Provincial Agricultural Coordinator
PELUM	Participatory Ecological Land Use Management
PPT	Push-Pull Technology
SAFF	Sustainable Agriculture Financing Facility
SDGs	Sustainable Development Goals
UN	United Nations
UNZA	University of Zambia
WFP	World Food Programme
ZAAB	Zambia Alliance for Agroecology and Biodiversity
ZARI	Zambia Agricultural Research Institute

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EXECUTIVE SUMMARY

PELUM Zambia and its partners have been advocating for the transformation of the food production system towards a more holistic, inclusive and environmentally friendly approach, because the **current food system has not delivered the desired outcomes.**

Despite the industrialisation of the food system driven by national programmes and frameworks such as the Farmer Input Support Programme (FISP), the Food Security Pack (FSP) and the Food Reserve Agency (FRA), most of the 3 million food producers still live below the multidimensional poverty line, which affects 48.4% of the population. Worse still is the ever-growing problem of land and soil degradation, resulting in progressively declining yields, from as high as 8 tonnes per hectare to as low as 0.3 tonnes per hectare.

The industrial food production model has contributed to increased maize production, the so-called "bumper harvest", which has largely promoted maize mono-cropping, encouraged siloed working, and contributed to the current state of food insecurity and widespread hunger in Zambia, as evidenced by the Global Hunger Index (GHI) of 2020. Furthermore, the food production system is exposed to external shocks and the negative impacts of climate change (including droughts), biodiversity loss, water pollution and environmental degradation. The most affected are rural communities that largely rely on agriculture for their livelihoods, and more specifically, women and youth, who remain disproportionately vulnerable.

Agriculture and food production systems reform is high on the Zambian government's agenda, not only because of the political sensitivity of the subject, but also because of its strategic importance for the country's international competitiveness and its potential to contribute to economic development. This urgency has been further heightened by the devastating drought of the 2023/24 farming season, which affected at least 10 million people across 84 of Zambia's 116 districts.

It is against this backdrop that a multi-stakeholder conference was organised to facilitate information-sharing on policy reform experiences; disseminate relevant analyses of food production; promote confidence-building among stakeholders; and ultimately encourage the development and implementation of a national agroecology food production system. The conference was held under the theme "***Agroecology for Inclusiveness, Social, Economic and Environmental Sustenance***" and focused on the challenges and opportunities facing Zambian farmers.

It was organised in collaboration with the Government of the Republic of Zambia through the Ministry of Agriculture, the Ministry of Green Economy and Environment, and the Ministry of Fisheries and Livestock, with financial support from PELUM Zambia, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), the Food and Agriculture Organisation of the United Nations (FAO), Bread for the World (Brot für die Welt), the Embassy of Sweden, Zambia Alliance for Agroecology and Biodiversity (ZAAB), FIAN International Zambia, Caritas Zambia, We Effect and the University of Zambia.

The conference attracted over 200 participants and encouraged constructive dialogue among stakeholders in farming, research, academia, advocacy, the media, government departments, and intergovernmental agencies from Zambia and neighbouring countries, including Malawi, Kenya, Uganda, Zimbabwe, Namibia, and South Africa.

Stakeholders at the conference resolved that the country cannot continue with business as usual. There is a need to break silos and dismantle the colonisation of food systems in terms of seed provision, access to inputs, access to land, access to fair markets, and the promotion of healthy and nutritious food, while fostering cooperation and living in harmony not only with the environment but with all actors in the food system. This requires an honest acknowledgement of the challenges and a coherent strategy to overcome them. Agroecology offers a more holistic and comprehensive solution by virtue of its characteristics as a science, a practice and a social movement.

Its 10 elements give it an unparalleled appeal among all actors, including consumers, farmers, civil society organisations, intergovernmental organisations, UN agencies and government policymakers. The 10 elements are summarised in Box 2 below.

As a way forward, stakeholders at the conference agreed to continue sensitisation on agroecology while taking concrete steps towards the development of a National Agroecology Strategy. This includes engaging the Ministry of Agriculture to finalise the strategy, launch it, and develop and adopt an implementation framework.

Key Elements for Successful Agroecology Reforms

Successful agroecology reform requires a deliberate, inclusive, and well-sequenced approach. The following elements are critical:

1) Conduct Regular and Evidence-Based Diagnostics
Undertake systematic assessments to identify bottlenecks affecting smallholder farmers, including structural, institutional, and market constraints. These diagnostics should assess alignment with agroecology principles and identify potential resistance to reform, including strategies for managing transition challenges.

2) Ensure Inclusive Participation
Engage a broad spectrum of stakeholders in needs assessments and reform processes, including smallholder farmers, women, youth, persons with disabilities, community leaders, extension officers, civil society organisations, and private sector actors.

3) Develop a Clear Vision and Implementation Strategy
Establish a coherent national agroecology vision supported by a practical implementation roadmap. The strategy should secure broad stakeholder ownership and be aligned with national development and poverty reduction frameworks.

4) Adopt a Phased and Prioritised Approach
Implement agroecological reforms in a logical and sequenced manner. Certain interventions depend on foundational measures, and prioritisation enhances cost-effectiveness and sustainability.

5) Invest in Awareness and Capacity Building
Conduct targeted awareness campaigns to communicate the benefits of agroecology. Provide structured training for government officials, extension workers, private sector stakeholders, and farmers to support effective implementation.

6) Align with International Best Practices
Ground national agroecology strategies in internationally recognised principles and frameworks, including the FAO's 10 Elements of Agroecology, while adapting them to Zambia's socio-economic and ecological context.

Box 1: *Key Elements for Successful Agroecology Reforms*

REPORT OF THE DISCUSSIONS

SESSION 1: WELCOME AND OPENING REMARKS

Moderator:	Mr Nkandu Chikonde
Topic	**Speaker**
Welcoming Remarks	Mr. Muketoi Wamunyima *Country Coordinator, PELUM Zambia*
Conference Goals and Agenda	Mr. Albert Mutasa *Country Manager, We Effect*
Keynote Speech	Dr. Judith Lungu *Mulungushi University*
Remarks by German Development Cooperation and Embassy	Mr. Bernhard Trautner *Head of Cooperation, German Embassy*
Remarks by the Food and Agriculture Organisation of the United Nations (FAO)	Ms. Suze Filippini *FAO Country Representative*
Official Opening of the Conference by the Guest of Honour	Honourable Reuben Mtolo Phiri, *MP, Minister of Agriculture*

This session provided background information and a glimpse into the organisation and collaboration that underpinned Zambia's First Agroecology Conference, galvanising solidarity towards the transformation of the current food system into one that is more resilient, inclusive, efficient, sustainable, diversified and eco-friendly.

Welcoming Remarks

Mr Muketoi Wamunyima, *the Country Coordinator of PELUM Zambia*, began by welcoming all participants to Zambia's First Agroecology Conference. He noted that the two-day event had attracted participants from government, including representatives from the Ministry of Agriculture, the Ministry of Green Economy and Environment, GIZ, FAO, FIAN International and CARE International, as well as traditional leaders, the University of Zambia, civil society organisations, training institutes, international delegates, students and the media.

He said this was a meeting convened to facilitate interaction among stakeholders in the agriculture sector who are committed to finding collective solutions to shared challenges in the country, pointing out that:

- "The era of working in isolation is over. We must complement each other's efforts."
- Agriculture is at a crossroads between productivity and the challenges posed by climate change.
- There is a need to connect the dots between understanding the challenges facing agriculture in Zambia and taking the necessary actions, because time is running out.
- There is a need to recognise the opportunities that arise from existing challenges, as underscored by the shared difficulties we face, such as the drought experienced in the past farming season.

- Zambia has over 3 million smallholder farmers who are the backbone of the food system, some of whom are already practising agroecology principles. What remains is scaling up. Agroecology can transform lives, the economy and sustain food production.
- The outcomes of the Conference will feed into the national strategic plan, galvanise support for its implementation and contribute to the national development agenda.
- The overwhelming response to the conference demonstrates that the agenda aligns with stakeholders' values and priorities.

Mr Wamunyima concluded by quoting Martin Luther King Jr., who said, "***Tomorrow is today***." What we do now will shape tomorrow. Agroecology is already being practised by smallholder farmers; what remains is scaling up through investment in research, extension services, technology, training, dissemination and institutional capacity.

He expressed warm thanks to the organising committee and to all participants, including the leadership and support from government and the generous financial and technical support from partners such as Bread for the World, GIZ, FAO, Caritas Zambia, ZAAB, We Effect, FIAN International, CARE International and others, for making the conference possible.

Conference Goals and Agenda

Mr Albert Mutasa, *Country Manager for We Effect*, warmly welcomed the audience and began by quoting the African proverb: "***If you want to go fast, go alone. But if you want to go far, go together.***" He said that the conference was about going far, a spirit aptly captured in the theme, "***Agroecology for Inclusiveness, Social, Economic and Environmental Sustenance.***" Mr Mutasa canvassed the audience for their expectations of the conference, and participants responded as follows:

- *Mr Dondo Bena*, a Lecturer in Soil Science and Programme Manager from Kasisi Agricultural Training Centre, said he was looking for solutions to the drought challenges experienced in the previous farming season.
- *Mr David Mukisi*, an agroecology student from Zimbabwe, said "food is the problem, and food is the solution," and that is why he was at the conference to learn.
- *Ms Susan Chilala* highlighted the need to discuss and share information on the drought disaster of the previous farming season and how agroecology can move the country forward.
- *Ms Rachel Wina*, from Nairobi, Kenya, said she was at the conference to discuss and identify policy and implementation gaps in the advancement of agroecology in Zambia.
- *Mr Katawa Gift*, a farmer from Chipata, hoped the conference would find solutions to farmers' heavy dependence on rainfall.
- *Mr Castro Chama*, Executive Director of the Girl Child Organisation, said he was looking for solutions to reduce dependence on maize as a staple food.

Mr Mutasa concluded by running through the programme as outlined in the agenda, emphasising the need to find solutions and build consensus on transforming the current food production system in Zambia, to use the conference as an opportunity for networking and to influence policy development and support.

Keynote Speech

Dr Judith Lungu, *a farmer and former lecturer at Mulungushi University*, delivered the keynote presentation entitled ***Agroecology: A Sustainable Strategy for Resilient Food Systems***, drawing attention to the similarities between global and national challenges, which include a rapidly growing population, soil depletion and climate change. She said agroecology is a solution because it is underpinned by action at both the global and national levels, as follows:

1. **Global level:** Policy action is anchored in SDG 2, which calls on member states to end hunger, achieve food security and improved nutrition, and promote sustainable agriculture by 2030. Global action is currently facilitated through the Conference of the Parties (COP), with the most recent being COP 28, whose primary aim is to reduce greenhouse gas emissions and increase investment in renewable energy.
2. **National level:** Policy action is anchored in the National Agriculture Policy (NAP) 2012–2030, in line with the National Economic Vision 2030, which promotes environmentally friendly farming systems such as conservation farming, afforestation and the use of green manure and lime. The Climate Change Policy of 2017 also emphasised the need to stem the impact of climate change on economic growth, particularly due to crop failure and disruptions to energy production.

Box 2: *10 Principles of Agroecology*

Agroecology engages all actors in the food system with the potential to address climate change and transform food systems at the local and national level, including actors from renewable energy services, biodiversity, soil health and nutrition. In order to fully scale up agroecology as an alternative food production system, Dr. Lungu made three recommendations: first, integrate agroecology into all agricultural policies and programmes; second, governments, research institutions, academia and civil society organisations must work together to promote agroecology through incentives, research funding and capacity-building programmes; third, make deliberate investments in a database of agroecological practices, initiatives and techniques at local, national and international levels.

Remarks by German Development Cooperation and Embassy

In his introductory remarks, **Mr Bernhard Trautner**, *Head of German Development Cooperation to Zambia*, began by praising the fruitful cooperation and partnership between Germany and Zambia spanning over 60 years. He echoed the keynote presentation's view that "***we cannot proceed with business as usual***" in food production. He pointed out that under the current drought stress, the agricultural system is not capable of ensuring food security for the country, hence the need to reconsider current approaches, examine where improvements can be made and whether alternative, resilient food production concepts are available to complement existing agricultural systems.

Mr Trautner noted that climate-smart agriculture can further benefit the rural population and underscored the timely need for agroecology, which can play a transformative role in Zambia's food production system. He argued that agroecology offers a holistic approach to agriculture not only because it mitigates the impact of climate change, but because it plays a critical role in building a resilient and stable agricultural system.

He also advised against overlooking the role that indigenous knowledge and traditional agriculture play in complementing modern food systems. He commended the conference organisers for bringing together the knowledge and skills of farmers, thinkers, researchers and the private sector to develop innovative agroecological solutions to the economic, social and environmental challenges that constrain food systems solutions that will create opportunities for entrepreneurs, improve market access for farmers, drive economic growth and contribute to government initiatives such as the Food and Nutrition Act No. 3 of 2020 and the National Agriculture Policy.

In conclusion, he recommended increased investment in agroecology, emphasising that there is a need for a fundamental transition in agriculture no more business as usual and affirmed that the German government remains committed to supporting and strengthening, including through co-financing, agricultural projects that are environmentally sustainable, conserve soil fertility, use water resources efficiently, are resilient to weather extremes such as floods and droughts, are inclusive for youth and women, and are connected to markets as well as research and training institutions.

Remarks by FAO

Ms Suze Filippini, *FAO Country Representative*, began her remarks by congratulating the Ministry of Agriculture and its partners for organising the first-ever Agroecology Conference in Zambia under the theme "***Agroecology for Inclusiveness, Social, Economic and Environmental Sustenance.***" She noted that it was a timely conference, given that the country was experiencing the devastating impact of the drought during the 2023/24 farming season.

She said the appeal of agroecology lies in its holistic approach to farming, one that integrates ecological principles with social values and economic stability. It is a philosophy that honours traditional knowledge while embracing innovation, fostering resilience in the face of climate change and promoting social justice in food systems. Agroecological practices are among the most practical responses to climate-related challenges, including drought.

The conference provided an important opportunity for sharing best practices that can address the social, economic, health and environmental challenges facing the current food system in Zambia. She expressed enthusiasm about the conference's integration of business and consumer perspectives, emphasising that it is markets that will attract more producers to adopt agroecology principles.

Ms Filippini noted that the conference was not merely a gathering of minds but a celebration of diversity, collaboration and hope for a more stable future. She urged participants to listen to the voices of small-scale farmers, indigenous communities and marginalised groups who are at the forefront of practising agroecology, so that their wisdom, resilience and creativity might inspire participants to think beyond boundaries and reimagine food systems in ways that benefit both people and the land.

She advised participants to approach the development of solutions with open minds and in a spirit of solidarity, ensuring that those solutions are rooted in the principles of agroecology. She assured the Ministry of Agriculture of FAO's continued support in promoting technologies that are environmentally friendly and sustainable.

She noted that the FAO 2022 - 2031 Strategic Framework is aligned with the government's mission to support the transformation towards a more efficient, resilient and sustainable agricultural system for better production, better nutrition, a better environment and improved livelihoods. She expressed gratitude to the Government of Zambia for the importance attached to the conference, which provides a roadmap for developing a national agroecology strategy, one of the key outcomes of the conference.

Official Opening of the Conference by the Guest of Honour

The conference was officially opened by the *Minister of Agriculture*, Honourable Reuben Mtolo Phiri, in a speech read on his behalf by the Deputy Director of Policy and Planning in the Ministry of Agriculture, **Mr Paul Mumba**. The Honourable Minister, representing three ministries, the Ministry of Agriculture, the Ministry of Fisheries and Livestock, and the Ministry of Green Economy and Environment, warmly welcomed participants to Zambia's First National Agroecology Conference, held under the theme "***Agroecology for Inclusiveness, Social, Economic and Environmental Sustenance.***"

He noted that the country was reeling from the effects of El Niño weather patterns, which had led to widespread drought across much of the country. Consequently, His Excellency Mr Hakainde Hichilema, President of the Republic of Zambia, declared the devastating drought a national emergency on 1 March 2024. This crisis affected 84 of Zambia's 116 districts, destroying approximately one million hectares of the 2.2 million hectares dedicated to maize cultivation, a staple crop. The Honourable Minister pointed out that, given this situation, it is imperative that the country abandons the business-as-usual approach and prioritises the promotion of more resilient food production systems and crops capable of withstanding the challenges posed by climate change. He then made the following policy recommendations:

- *The conference and the nation should explore more innovative approaches to farming that can support food producers even when drought conditions persist.*
- *Practices such as agroecology, agroforestry and regenerative agriculture should play a central role in complementing existing food production methods.*
- *National initiatives such as the Farmer Input Support Programme (FISP) and the Food Security Pack (FSP) should begin to include drought-tolerant crops such as local maize varieties, millet and sorghum.*
- *There is a need to embrace livestock and aquaculture food systems in an integrated manner to cushion the country's food security in times of crisis, such as the one Zambia is currently experiencing.*
- *There is an urgent need to develop a National Agroecology Strategy for Zambia, aimed at embedding agroecology principles across government ministries and enabling the sustainable utilisation of natural resources. The strategy will also bring to the fore the institutions that will be key to promoting agroecology in the country.*
- *The nation must produce and consume foods that are indigenous and adaptable to local ecosystems, as this mitigates the effects of climate change and increases resilience, particularly in rural areas. While the government promotes commercial production for trade and export, household food security and livelihoods must not be overlooked, and no one should be left behind. Supporting agroecological innovations, therefore, requires deliberate and focused attention.*

The Honourable Minister expressed gratitude for the commitment and support provided by cooperating partners in ensuring the success of the conference. He urged participants to share lessons and learn from other countries on the best available options for creating food- and nutrition-secure nations.

SESSION 2: AGROECOLOGY FOR SUSTAINABLE FOOD SYSTEMS

Moderator:	Mr Nkandu Chikonde
Topic	**Speaker**
Introduction: What is Agroecology?	Mr Wilfred Miga *Programs Officer, PELUM Zambia*
Agroecology as a solution to climate change, environmental and human health	Dr Siatwiinda Siatwiinda *Mulungushi University*

This session set the stage by presenting the holistic nature of agroecology and its core principles, and exploring how the current food system can be transformed through an agroecological approach. The session drew connections between agroecology and its potential to address climate change, land degradation, social justice and nutrition challenges facing the country.

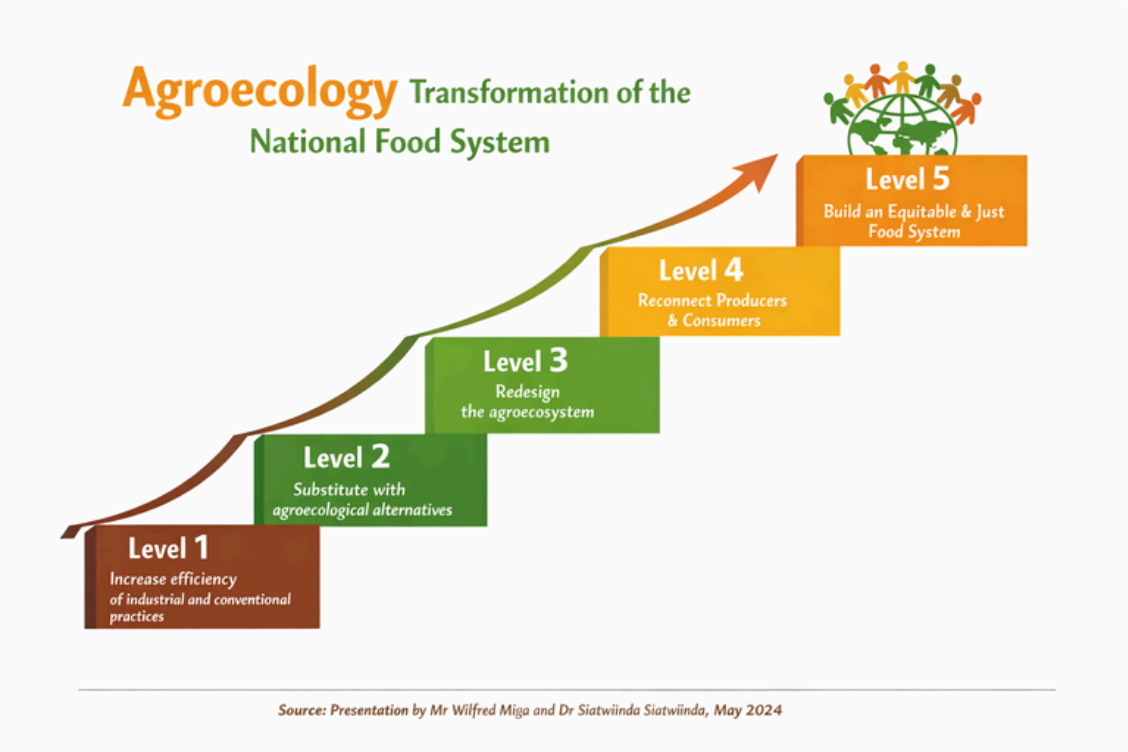
Introduction: What is Agroecology?

Session 2 opened with a presentation by **Mr Wilfred Miga**, the *Programme Officer of PELUM Zambia*, who addressed the question: *What is Agroecology?* Mr Miga cited Stephen R. Gliessman (1998), who defined agroecology as ***"the application of ecological concepts and principles to the design and management of sustainable agroecosystems."*** He explained that ecological concepts must be applied to agricultural production systems in a manner consistent with natural processes.

He noted that, with an increasing population and limited or dwindling farming spaces, it will be imperative for the food system to become sustainable in order to support a growing population. At the macro level, agroecological concepts and principles encompass the economic and social dimensions of the food system. He went on to connect the holistic nature of agroecology to the promotion of soil health, biodiversity, resilience, food sovereignty and climate adaptation for both farmers and consumers.

Mr Miga pointed out that agroecology encourages resource efficiency and is therefore more cost-effective than conventional industrial agriculture, which is expensive, environmentally degrading and highly dependent on external inputs that are often hazardous to human health. To transition to a fully agroecological food system, Mr Miga outlined five levels of transformation, as espoused by Gliessman (2007) and the HLPE (2019), as shown in *Box 3*.

He concluded by emphasising the importance of incremental transformation towards a self-sustaining food system, and closed with a quote from Wendell Berry: **"Sustainable agriculture is that which depletes neither the people nor the land."**



Box 3: *Agroecology Transformation of the National Food System*

Agroecology as a solution

Dr Siatwiinda Siatwiinda, an academic from *Mulungushi University*, presented on the topic Agroecology: Addressing Climate Change, Social Injustices, Environmental Degradation, and Human Health. He began by emphasising the holistic nature of agroecology, which has evolved from a science, a practice and a social movement focused on fields and farms into a discipline with an expanded scope encompassing the entirety of agriculture and food systems, cutting across issues of climate change, social injustice and environmental health, as follows:

a) Climate change:
The current conventional global food system contributes 34% of greenhouse gas emissions through processing and packaging, transportation, production, retail and soil degradation. Agroecology principles such as ecosystem enhancement, recycling, natural pest control, soil regeneration and efficient water management aim not only to reduce greenhouse gas emissions, but also to cushion the impact of climate change, including droughts, through crop diversity.

b) Social justice:
The current global food system is characterised by injustices such as land grabbing, displacement of indigenous communities, unequal land distribution, market inequalities, and unequal access to water, seeds, credit and agricultural inputs. These market inequalities, including price volatility, unfair trade practices and monopolistic control by agribusiness corporations, lead to the exploitation of farmers and workers, particularly small-scale farmers and marginalised communities.

Agroecology promotes equitable access to essential resources such as land, water, seeds and agricultural inputs. It fosters economic justice by prioritising local and community-based food systems and supports economic opportunities for small-scale farmers and rural communities, reducing dependence on external markets. It encourages cooperation and knowledge-sharing among farmers, fostering a sense of solidarity and collective action to address common challenges. Agroecology also supports fair and transparent trade practices, ensuring that farmers receive fair prices for their products and are not exploited by dominant market players. Furthermore, agroecology prioritises the inclusion and empowerment of marginalised groups, including women, youth, indigenous communities and smallholder farmers, in decision-making processes and resource allocation.

c) Environmental degradation:
While the current food system is characterised by the use of chemical pesticides and monocropping, both of which lead to land degradation, agroecology principles align with environmental sustainability through practices such as agroforestry, polycultures and crop diversification, which enhance ecosystem services, support biodiversity and wildlife habitat, and promote recycling, efficiency and resilience. Agroecological practices for soil health, such as conservation tillage, cover cropping and organic soil amendments, promote soil fertility, structure and microbial diversity, while reducing erosion and nutrient runoff. Agroecological approaches to water management, including rainwater harvesting, contour farming and agroforestry buffers, improve water infiltration, retention and quality, while minimising erosion and runoff. Collectively, these practices help to mitigate environmental degradation by fostering sustainable land use, reducing chemical inputs and enhancing ecosystem resilience to climate change and extreme weather events.

d) Nutrition and human health:
Agroecology is closely linked to nutrition and human health, as agroecological practices influence food production, dietary diversity and nutritional outcomes by promoting access to diverse and nutritious foods, including fruits, vegetables, legumes and traditional crops. Agroecological interventions such as community gardens, school feeding programmes and home gardens enhance access to fresh and nutritious foods, reduce malnutrition, and improve dietary diversity and micronutrient intake. Agroecology also addresses specific health challenges such as micronutrient deficiencies, malnutrition and diet-related diseases, through sustainable food production systems that prioritise local food systems, traditional knowledge and cultural practices.

Dr Siatwiinda cautioned that agroecology faces many challenges, including limited policy support, inadequate funding, lack of awareness, limited technical capacity, limited context-specific evidence and entrenched industrial agricultural systems. He nonetheless outlined existing opportunities, which include scaling up agroecological approaches and mainstreaming them into policy and practice, increasing public awareness of and demand for sustainable and healthy food, advocating for policy reforms and incentives that support agroecological practices, and fostering multi-stakeholder collaboration and partnerships.

Dr. Siatwiinda concluded his presentation by advocating for the scaling up of agroecology through innovative financing mechanisms, market incentives and supportive policies that can facilitate the adoption and diffusion of agroecological practices. He also called for the creation of knowledge-sharing platforms for various stakeholders, including farmers, policymakers, researchers and consumers. Such platforms must integrate indigenous knowledge, traditional farming practices and local innovations into agroecology research and development initiatives, respecting diverse cultural contexts and promoting social equity, cultural diversity and indigenous rights.

SESSION 3: PANEL DISCUSSION

Moderator:	Mr Austin Chilala, *Farmer for over 29 years*
Panellists	• Mr Joseph Cheelo, *Director of Policy and Planning, from the Ministry of Agriculture* • Mr Sebastian Scott, *Farmer* • Professor Felix Kalaba, *an Academic* • Mr Eugene Kabilika, *Caritas*
Topics	• What alternative agroecological practices have worked amidst the current climate change impacts? • To what extent can agroecology play a role in curbing environmental degradation? • To what extent is the food production system contributing to our health, good nutrition and wellbeing, and what role can agroecology play?

This session was centred on three key issues on which agroecology has an impact:

- ***Climate change***
- ***Environmental degradation***
- ***Health and nutrition***

The moderator, Mr Austin Chilala, opened by reflecting on his time at Kasisi Agricultural Training Centre some 24 years earlier, when it was not fashionable to discuss sustainable organic agriculture. He noted that the subject now attracts an international audience, driven by the reality that the yields from chemical fertilisers are dwindling.

Topic 1: What alternative agroecological practices have worked amidst the current climate change impacts?

a) Mr Sebastian Scott, with 25 years of experience in agroecological practices, said that his field retains moisture for longer periods because it contains high levels of soil organic matter. While every farming season typically experiences a dry spell of between 10 and 14 days, the 2023/24 farming season had the longest dry spell on record, lasting seven weeks. He said that while neighbouring farmers using conventional practices, which do not encourage the build-up of soil organic matter, harvested nothing, he was able to harvest maize, soybeans and groundnuts. He added that his field is so resilient that it can withstand two months without rain and still yield a harvest. He noted that input costs are very high and returns are marginal, and that it may take over five seasons to recover from a single farming disaster caused by drought. The initial investment in agroecological practices is therefore well worth it.

b) Mr Joseph Cheelo, *Director of Policy and Planning at the Ministry of Agriculture*, noted that small-scale farmers have the lowest productivity due to poor soils. Their practice is to open new fields every time they deplete existing ones, a cycle that contributes to increasing greenhouse gas emissions and land degradation, perpetuating a vicious cycle of climate change. He said one must *"feed the soil for the soil to feed you."* Government efforts are now focused on building soil structure, moving away from the application of more fertilisers, pesticides and herbicides. Approaches have been evolving from conservation farming to smart agriculture, regenerative agriculture and climate-smart agriculture, and now to agroecology, where the objectives are broadly aligned. He called on the conference to arrive at one sustainable approach to increasing the productivity of small-scale farmers while caring for the environment.

He confirmed that the Ministry of Agriculture is ready to support efforts to develop a National Agroecology Strategy, noting that agroecology is fundamentally about mimicking how natural ecosystems operate, including the preservation and improvement of existing landscapes.

c) Professor Felix Kalaba argued that it is erroneous to conclude that farmers have destroyed the soil. It is, rather, policymakers who have misled farmers into believing that the application of ever-increasing quantities of chemical fertilisers, herbicides and pesticides would increase productivity. He emphasised that it is high time farmers rediscovered the past and examined what has worked and what has not, in terms of technology, techniques and research.

d) Mr Eugene Kabilika from *Caritas* shared an experience in which he gave his nephew indigenous seed from the food festival to plant, advising him not to use chemical fertilisers or herbicides, and instead to use mulching and natural manure. The result was that his nephew managed to harvest produce only from the organically farmed plot, while the other farms lost their produce due to the drought of the 2023/24 farming season. Mr Kabilika also advocated for controlled animal grazing after harvesting.

Topic 2: To what extent can agroecology play a role in curbing environmental degradation?

a) Professor Kalaba said agroecology is about balancing ecosystems, improving soil fertility, avoiding water pollution by eliminating the use of chemical fertilisers, and avoiding the fragmentation of ecosystems. It is about improving livelihoods through natural resource-based approaches that are adaptable to climate change. Agroecology encompasses environmental management, agroforestry, reduction of water pollution, and the reuse and recycling of resources, all of which contribute to curbing environmental degradation.

b) Mr Kabilika pointed to the principle of multi-cropping and biodiversity, noting that agroecology reduces land degradation because farmers do not practise mono-cropping. This prevents runoff and minimises soil erosion, thereby curtailing environmental degradation.

c) Mr Cheelo observed that soil conservation, biodiversity conservation, the mimicking of natural ecosystems, landscape management and water conservation are all agroecology principles that contribute to curbing environmental degradation.

d) Mr Scott cautioned that agroecology is not only about conservation but also about enabling farmers to earn a livelihood from the environment. He noted, for example, that charcoal burners do not always aim to degrade the environment; they may be utilising trees that are surplus to their farming system. There must therefore be a system that balances environmental conservation with the reality of farming as a business.

e) The moderator, **Mr Chilala**, concluded with an example from water management, describing the principle of *"save to conserve"*, that is, to reduce runoff by slowing it, spreading it and sinking it into the ground for use at a later stage.

Topic 3: To what extent is the food production system contributing to our health, good nutrition and wellbeing, and what role can agroecology play?

a) Mr Scott noted that although good nutrition requires financial resources, multi-cropping helps to contribute meaningfully to dietary diversity and nutritional outcomes.

b) Mr Kabilika explained that industrial agriculture promotes monocropping, which results in nutritionally deficient diets. The chemicals used in food production, preservation and packaging disrupt the body's natural health balance. He noted that soil bacteria and gut bacteria are typically similar in composition when they are not disturbed by industrial processes, and that this natural alignment contributes to overall well-being and health.

c) Professor Kalaba observed that agroecology increases crop variety, which in turn increases the nutritional content of food. He noted that, due to current farming systems, some local food varieties have disappeared, and that agroecology offers a pathway to restoring them.

d) Mr Cheelo acknowledged that, while industrial agriculture has helped feed a growing population, it has depleted the nutritional content of food through its heavy reliance on chemicals. He expressed confidence that agroecology will restore the missing nutritional diversity in the food system, including through the recovery of animal, fish and plant varieties.

e) The moderator, **Mr Chilala**, observed that *"we are what we eat."* He concluded the session by summarising the key principles of agroecology: that it is economically viable and socially just; that it ensures soil fertility and regeneration; that it promotes water conservation and runoff prevention; and that it maintains zero use of hazardous herbicides, pesticides and chemical fertilisers.

SESSION 4: Q&A SESSION

Moderator:	Mr Nkandu Chikonde
Panellists	• Mr Joseph Cheelo, *Director Policy and Planning, from the Ministry of Agriculture, representing the Government* • Mr Sebastian Scott, *Farmer, representing Farmers* • Professor Felix Kalaba, *an Academic, representing Researchers* • Mr Eugene Kabilika, *from Caritas, representing Civil Society*

In this session, participants widely acknowledged the importance of and essential need for a transition in the food system towards agroecology. However, in the absence of widespread evidence, several participants were not convinced that agroecology alone could feed the nation. Panellists, especially those from civil society, were frank and unequivocal in asserting that agroecology is the only way forward.

- **Ms Mirriam Phiri**, *a lecturer from the University of Zambia*, pointed out that data from over 100 farms surveyed over a period of five years across Zambia is available at the University of Zambia, and that it demonstrates that conservation and agroecological principles work. She raised the concern that the challenge lies in connecting researchers to policymakers and farmers, and asked what is being done to strengthen the channels of communication between researchers and farmers.
- **Ms Mary Sakala**, *a small-scale farmer*, expressed concern about the increased dependency on FISP, attributing it to low productivity caused by the late distribution of the wrong seed variety, in this case, the 700 series.
- **Ms Agness Chinyama** from *WWF* observed that it is incorrect to equate climate-smart agriculture with agroecology, because climate-smart agriculture relies on chemical fertilisers and other external inputs, whereas agroecology does not.

Answers

Mr Cheelo clarified that climate-smart agriculture is similar in principle to agroecology in that it has a wider scope, encompassing crop management, soil management, water management, agroforestry, livestock management, energy management, and fisheries and aquaculture. He noted, however, that it is important for conference participants to converge on one unifying concept for adoption.

Mr Cheelo explained that there are three categories of agricultural subsidies: (1) the Food Security Pack (FSP), which is intended for vulnerable but viable farmers to meet food security at the household level; (2) FISP, which is designed to enable smallholder farmers to graduate into commercial farmers within three years; and (3) the Sustainable Agriculture Financing Facility (SAFF), through which the government is working to transform farmers from subsistence to commercial farming, with provisions that can also include irrigation and livestock farming.

Mr Cheelo noted that the Ministry of Agriculture has a research arm, the Zambia Agriculture Research Institute (ZARI), which has conducted valuable research on drought-resistant seed varieties. He stressed the importance of researchers sharing their findings with one another and invited the academic representative from UNZA to engage directly with the Ministry of Agriculture to help disseminate research-based knowledge to extension officers on the ground.

The Provincial Agriculture Coordinator (PACO) from *Southern Province* clarified that the 700 series seed is not distributed in areas where it is unsuitable. For example, farmers in Southern Province receive the 500 and 600 series instead. He noted that, once the e-voucher system is rolled out, farmers will be able to select their own seed varieties. He added that no farmer is prevented from using their own inputs, but acknowledged that people naturally gravitate towards cheaper or seemingly free options.

Professor Kalaba explained that good research must be connected to effective dissemination channels and consolidated on a single knowledge hub to prevent duplication and ensure proper attribution. He also noted that the terminology used must be grounded in principles, since principles, unlike terminology, do not change.

Mr Kabilika recalled that a knowledge hub had been developed not long ago by civil society, and expressed concern about how it came to collapse. He clarified that terms such as *"smart agriculture"* and *"agroforestry"* all derive from the concept of working with the environment to produce food and therefore fall under the broader umbrella of agroecology

Second Round of Questions

During this round, questions centred on the need for data to speak for itself and for farmers to follow suit once they witness the tangible benefits of agroecology

Mr Misheck Nyirongo from *Agroecology Media Services* in Lundazi asked how many farmers had successfully graduated from FISP into commercial farming.

Ms Mutinta Nketani from *ZAAB* shared her experience with conservation farming, climate-smart agriculture and agroecology. She noted that the key distinction of agroecology is that it completely phases out chemical fertilisers, pesticides and herbicides. She emphasised that farmers in transition must carefully weigh the costs and benefits as they move from one form of farming to another.

Mr Henry Sichalwe from *UNZA* cautioned that there is a need for a balance between agroecology and conventional practices, as both have demonstrated results. He acknowledged that while conventional agriculture may be a necessary transitional measure, the judicious use of chemicals should be encouraged in the interim.

Dr Bridget O'Connor, an organic inspector from Kasisi Agricultural Training Centre, questioned why the role of plants in absorbing carbon from the atmosphere and reducing greenhouse gas emissions had not been put forward as a solution for mitigating climate change.

Mr Kudakwashe from *Zimbabwe* explained that his organisation has been applying agroecological principles since 1988, and that the biggest constraints in agroecology are mechanisation and the need to ensure meaningful participation by youth and persons with disabilities. He also raised the question of how farmers can be incentivised to remain in agroecology, given that productivity gains can be limited, particularly during the transition period.

Mr Ezra Banda, *Chairperson of PELUM Zambia*, explained that there is a need to balance agroecology with food security at the household level, noting that a household will only practise agroecology when it is food secure. He also called on researchers to share their knowledge with civil society organisations, which can in turn disseminate it through their smallholder farming networks.

An **online contributor** questioned why food production is not measured in nutritional value per hectare, rather than in tonnes per hectare.

Answers

Professor Kalaba observed that many of the issues raised amounted to expressions of concern rather than concrete proposals for action. He noted that simply renaming FISP changes nothing, and that real change and adoption will only occur when farmers see tangible benefits accruing from the adoption of agroecological principles.

Mr Eugene Kabilika, responding to the question raised by Mr Henry Sichalwe, explained that FISP was originally conceived not as an input distribution programme but as a credit scheme operated through marketing board shops across the country. After harvesting, farmers would simply repay what they owed the marketing board. He lamented that this system was dismantled within a single season during the MMD government. He used the example of Southern Province, which was once the food basket of the country, to illustrate the consequences of over-reliance on conventional agriculture: soils have become so depleted that many farmers have relocated to Northwestern and Northern Provinces. He argued that there is effectively no viable conventional agriculture remaining in Southern Province, only regenerative approaches. He concluded emphatically that there is no room for ambiguity: "There are no choices, embrace agroecology or perish."

Dr Siatwiinda agreed that plants can indeed help mitigate climate change by reducing atmospheric carbon dioxide. He noted, however, that large-scale soil tillage can undermine efforts to reduce greenhouse gas emissions.

SESSION 5: DAY 2 – FEEDBACK FROM THE MARKETPLACE

This session focused on key aspects of participants' experiences, drawing on evidence of the successful implementation of agroecology principles through the indigenous food products displayed at the Marketplace.

- **Mr Chikondi Mlera**, a Climate-Smart Agriculture Specialist from *Total LandCare in Malawi*, observed that conventional food systems are well-resourced, policy-anchored and institutionalised, and that they far overshadow agroecologically produced food. He noted that there were yams at the Marketplace that had never reached Malawi, a next-door neighbour. He remarked that *"without good markets, agroecology is going nowhere."*
- **Mr Charles Nkhoma** from *CTDT* cautioned participants against oversimplifying agroecology. He noted that it is far more complex than it may appear and will require considerable deliberation before a national agroecology strategy can be developed.
- The moderator, **Mr Nkandu Chikonde**, noted that the only way to *"eat an elephant"* is to break it down into smaller pieces, and urged participants to join the breakaway sessions for maximum participation.
- **Mr Ezra Banda**, *Chairperson of PELUM Zambia* and representative of Kepa Zambia, said the Marketplace demonstrated that agroecology is a reality. He acknowledged, however, that if farmers are struggling with income, they may still need to rely on conventional means in the interim. He questioned why civil society organisations are still at the piloting stage with agroecology, given how long the concept has been promoted.
- **Mr Chaliyafya Katungula** from *the Forestry Institute of Zambia* commended the display at the Marketplace. He particularly praised the packaging of the jungle oats from Kasisi and urged Kasisi Agricultural Training Centre to scale up production and market the product more vigorously.
- **Mr Lloyd Michelo**, a *small-scale farmer* from Chongwe, urged farmers to be more practical and less theoretical in their approach. He recommended that future Marketplace events also showcase natural pest control products.
- **Ms Mutinta Nketani** from *ZAAB* urged organisers of future Marketplace events to showcase a far greater diversity of food products, beyond maize.
- **Ms Agness Chinyama** noted that the reason agroecology appears to still be in the piloting phase is that it is a relatively new concept compared to conventional farming. She emphasised that it requires resource support, information dissemination and the development of trade networks.
- **Mr Titus Mwale**, *Coordinator of the Nyimba District Farmers Association*, recommended the promotion of indigenous seeds displayed at the Marketplace by packaging and commercialising them so that farmers can access them more easily.
- **Mr Lazarous Sichone** from *WWF* pointed out that the food pathway must not merely move from field to fork, but must be considered holistically from seed to waste disposal, including the use of biogas digesters to reduce pressure on the environment.

SESSION 6: RECAP OF THE FIRST DAY

The moderator, Mr Nkandu Chikonde, provided a recap of the first day, highlighting the following key points:

- Agroecology as a concept was defined, and its core elements were outlined.
- Global strategies to address climate change were explained, including an articulation of where agroecology fits within those strategies.
- A recommendation for the development of a National Agroecology Strategy was made.
- Country-level practices around agroecology were presented, and the Marketplace was used to showcase the possibilities that exist.
- Participants were called upon to take away tangible next steps and implement them, with a particular focus on collaboration and networking among different stakeholders, including researchers and farmers.
- The day concluded with a question-and-answer session, which surfaced the critical issue of scaling up agroecology and improving trade and market access for agroecologically produced food.

Figure 1: *The Marketplace at the Conference*

SESSION 7: DAY 2 – OPERATIONALISING AGROECOLOGY FOR SUSTAINABLE FOOD SYSTEMS

Moderator:	Mr Nkandu Chikonde
Topic	**Presenter**
MGEE: Implementation of NAP to build climate resilience	Mr Dalitso Tembo *Ministry of Green Economy and Environment*
Agroecology strategy: Understanding the path to an agroecology strategy for Zambia	Mr Joseph Cheelo *Ministry of Agriculture*
GIZ presentation: Agriculture and Food Security Cluster in Zambia	Dr Natasha Mwila *Cluster coordinator of the Agri-Food Cluster GIZ Zambia*
FAO Presentation: Agroecology for Sustainable Agriculture in Zambia	Mr. Zuba Mwanza *FAO*
Breaking the Silos: Co-creating local solutions for decolonising food systems	Ms Chikwe Mbweeda *Country Director Care International*

MGEE: Implementation of NAP to build climate resilience

The first speaker, **Mr Dalitso Tembo** from the *Ministry of Green Economy and Environment*, presented on the Implementation of the National Adaptation Plan (NAP) to Build Climate Resilience, which was launched on 14 November 2023. The purpose of the NAP is to guide the Zambian government in responding to current and projected negative climate change impacts, particularly in climate-vulnerable sectors such as food production, water, energy and forestry. Mr Tembo outlined the process of developing the NAP as follows:

- In 2020, the Government of the Republic of Zambia (GRZ), in partnership with the Global Water Partnership (GWP), secured a Green Climate Fund (GCF) grant of US$2.1 million to support the NAP process.
- In March 2021, the NAP development process commenced.
- In June 2021, challenges and gaps in institutional coordination and collaboration, as well as strategies for strengthening them, were identified.
- In December 2021, a system for integrating climate change adaptation into national plans and budgets was developed.
- In March 2022, action plans for national priority sectors were developed.
- In June 2022, the capacity for implementation of the NAP was strengthened through the provision of climate data, the identification and appraisal of priority options, and the mainstreaming of gender considerations in climate adaptation.
- In September 2022, a national strategy for mobilising financial and other resources for the implementation of the NAP was developed.
- In November 2023, the NAP was officially launched.

Mr Tembo acknowledged that the process was not without challenges, including a lack of critical data for national adaptation planning, poor knowledge management on climate change, and limited engagement of grassroots communities. He concluded by outlining the next phase of the NAP, Phase 2, which will focus on developing a Water NAP. Participants were encouraged to explore opportunities to engage in the next phase, which will include developing a Resource Mobilisation Strategy (a draft of which is already in place), conducting communication and awareness activities, and providing training in climate finance and gender mainstreaming.

Agroecology strategy for Zambia

The second presenter in this session was **Mr Joseph Cheelo**, *Principal Agricultural Specialist for Land Management and Conservation Farming at the Ministry of Agriculture*, who presented on *Agroecology Strategy: Understanding the Path to an Agroecology Strategy for Zambia*. Mr Cheelo began by outlining the current national challenges in agricultural production as follows:

- Low yields, for example, maize yields range from 0.8 to 1.72 tonnes per hectare against a potential yield of 10 to 12 tonnes per hectare.
- Prevalence of acidic soils, especially in high-rainfall areas such as Northern Province.
- 3)Low inherent soil fertility.
- Inadequate application of plant nutrients.
- An inadequate number of seed varieties with high yield potential.
- Poor quality seed.
- Inadequate control of pests and diseases.
- The compounding effects of climate change exacerbate all of the challenges outlined above.

Referring to the Zambian map, Mr Cheelo warned that the highly productive agroecological region is shifting and shrinking, while areas with acidic and poor soils and drier conditions are expanding.

To develop the National Agroecology Strategy, there is a need to build on the existing policy framework, which includes the following policies and strategies:

1. The Zambia Vision 2030
2. The 8th National Development Plan
3. The Second National Agriculture Policy
4. The Zambia National Agriculture Investment Programme / Comprehensive Agriculture Transformation Support Programme
5. The National Policy on Climate Change
6. The National Adaptation Programme of Action
7. The Draft National Climate Change Response Strategy
8. Nationally Determined Contributions (NDCs)
9. The Green Growth Strategy

Mr Cheelo explained that the existing policies have already addressed the following issues:

1. Conservation farming and agroforestry
2. Crop diversification
3. Appropriate irrigation and water harvesting
4. Mixed farming and crop-livestock integration

5. Drought-tolerant crop development and promotion
6. Promotion of indigenous and local livestock breeds
7. Livestock feed conservation for dry seasons, including fodder banks
8. Disease and pest surveillance and control
9. Promotion of aquaculture

Given the challenges outlined above, including rising temperatures, destructive flooding and declining rainfall, all of which pose a significant threat to food security and people's livelihoods in the country, Mr Cheelo concluded by expressing confidence that the concerted efforts of government and partners could result in appropriate policy mechanisms to address this situation. He affirmed that efforts to develop and put in place a National Agroecology Strategy cannot be overstated.

GIZ: Agriculture and Food Security Cluster in Zambia

The third speaker, **Dr Natasha Mwila** from *GIZ*, provided insights into the Agriculture and Food Security Cluster in Zambia, explaining that the German government has invested over 2.2 billion Euros over the last 10 years through a special initiative at the global level that supports the transformation of agri-food systems. In Zambia, the agri-food cluster is working on 12 different projects designed to develop and scale up innovations that contribute to the 13 elements of agroecology (FAO, 2018).

At the heart of the agri-food cluster is the co-creation and horizontal sharing of knowledge, including local and scientific innovation, particularly through farmer-to-farmer exchange. At the target group level, the cluster focuses on testing innovations, building capacity and ensuring ownership among local communities. It is currently active in five provinces and works in partnership with six government ministries. Dr Mwila outlined various agroecological initiatives and innovations, including the following:

i) Agroecological Innovations for Smallholder Pest Management in Malawi, Uganda and Zambia (EcoPM)

- Intercropping of maize with leguminous Desmodium sp. (push) and grass Brachiaria sp. (pull): Effective against Fall Armyworm (FAW), which is repelled from the maize by the Desmodium sp. and attracted to the Brachiaria sp.
- FAW parasitoids (Cotesia marginiventris): The use of natural enemies, such as Cotesia, which feed on the FAW. These can be released in the field in collaboration with ZARI under the Ministry of Agriculture.
- Biological pesticides.
- Pheromone traps: These traps attract the FAW and can subsequently be disposed of safely.

Further information on these approaches can be obtained through ICIPE.

ii) Digital Climate Services for Smallholder Farmers in Zambia and Malawi (E-PICSA)

This project operates in collaboration with the Ministry of Green Economy and Environment and the Meteorological Department. The E-PICSA app is available for download from the Google Play Store. For example, using the app, a farmer can access the water requirements for growing a particular crop and, using the weather forecast from the Meteorological Department, can make an informed decision about whether to plant that crop.

iii) Food and Nutrition Security, Enhanced Resilience (FANSER) Project

This project aims to ensure food and nutrition security, particularly for women of childbearing age and young children, by ensuring they always have access to sufficient and healthy food, including during times of food crisis. One notable innovation under this project is the Keyhole Garden, a circular, raised bed comprising layers of scrap metal, plant materials, soil, ash and manure. These layers act to retain moisture and nourish the soil, making the garden more productive than a conventional one, even during dry or cold months. The garden wall is typically constructed from bricks or stones, measuring 1 metre high and 1.5 to 2.0 metres in diameter, with a basket at the centre. The name derives from a keyhole-shaped cutout that allows farmers access to all parts of the garden. Once built, the garden requires minimal maintenance and can produce food for up to five years.

iv) Green Innovation Centres Project (GIC)

- *Agroforestry*: Working with COMACO in Chipata, GIZ is supporting alley cropping with Gliricidia sepium to improve soil fertility.
- *Community-led Extension*: Using lead farmer structures, GIZ is supporting the dissemination of knowledge through over 6,000 weekly meetings across the country.
- *Conservation Agriculture*: GIZ is supporting crop rotation, minimum tillage and the use of crop residues to improve soil health across five provinces and various projects.
- *Organic Groundnuts*: Through COMACO, GIZ is supporting the production of organic groundnut seeds certified by EcoCert and exported to South Africa and the USA, while ensuring zero use of chemicals.
- *Certified Seed Production*: Facilitating access to high-quality seed for farmers through organic seed multiplication.

v) The Agroecology Criteria Tool (ACT)

This tool enables the assessment of a project through the lens of agroecology, visualising the degree to which a project, programme or policy is aligned with the various dimensions of agroecology.

Dr Mwila affirmed that agroecology offers a pathway towards sustainable food systems, responsible stewardship of land and resilience in the face of climate change. She called on all participants to continue advocating for its adoption and to support small-scale farmers in their vital role. She concluded by urging participants to internalise agroecology principles in both thought and action, to walk the talk, and to scale up all agroecology-based projects because, she said, it is quite simply a matter of survival.

FAO: Agroecology for Sustainable Agriculture in Zambia

The fourth presenter in this session, **Mr Zuba Mwanza** from the *Food and Agriculture Organisation of the United Nations (FAO)*, spoke about how FAO supports the Government of the Republic of Zambia with a Focus on Agroecology for Sustainable Agriculture. He began by defining agroecology using FAO's 2015 definition, the science of applying ecological concepts and principles in the management of interactions between plants, livestock, human beings and their natural environment, for enhanced food security and nutrition (FAO, 2015). His presentation covered FAO's agroecology activities at both the global and local levels:

Global Level

- In September 2014, FAO Headquarters hosted a two-day International Symposium on Agroecology for Food Security and Nutrition, which culminated in a high-level round table with agriculture ministers from several countries, including Zambia. More than 50 experts, including professors, researchers, private sector representatives, government officials and leaders of civil society organisations, made presentations or delivered speeches at the symposium, which was attended by more than 400 people.
- FAO has also developed an Agroecology Framework with 10 key elements that countries can use in fostering sustainable, transformative change in agri-food production systems. Please refer to Box 2, as presented by Dr Judith Lungu above.
- FAO provides support for international training for smallholder youth and women farmers in agroecology.

Local Level

- *Sustainable Crop Intensification: FAO has partnered with the Ministry of Agriculture through ZARI to research how to achieve sustainable crop intensification. With support from the European Union, FAO has reached over 60,000 farmers, investing up to US$33 million in these initiatives. FAO has supported the development of crop management technologies that increase productivity without adverse effects on natural resources, enhancing climate change resilience and input-use efficiency, while enabling farmers to participate competitively in markets.*
- *Climate-Resilient Agronomic Practices: Promoting resilient agricultural livelihoods in the face of changing rainfall patterns, increasing drought and occasional flooding.*
- *Sustainable Soil Management Practices: FAO has provided institutional support to develop modern methods of soil analysis and deliver high-quality results from laboratories across the country, thereby enhancing technical and institutional capacities for data-driven and integrated soil information and fertility management at the national and farm levels.*
- *Backyard Vegetable Gardening: Promoting the production and consumption of horticultural crops for improved nutrition, like projects supported by GIZ.*
- *Efficient Water-Use Management: FAO offers technical assistance to the government in the design and implementation of on-farm irrigation systems, water-saving techniques and water-harvesting techniques.*
- *Agroforestry: FAO has supported initiatives for farmers across the country to promote the planting of trees that improve soil fertility, protect crops and livestock from wind, restore degraded lands, improve water conservation, limit pests and prevent soil erosion.*
- Crop Diversification: FAO supports initiatives and projects across the country that enhance agrobiodiversity, as crop diversification increases the productivity and stabilises the income of smallholders by reducing risk.
- Integrated Pest Management: Through its partnership with ZARI, FAO is involved in promoting agroecological crop protection for sustainable agriculture, including through Integrated Pest Management and the biological control of FAW.
- Integrated Farming Systems: FAO has co-funded and provided technical support for farmers integrating crop and livestock production, crop and fish production, as well as forest and crop production systems.
- Policy Support: FAO has been instrumental in the development and review of key policies and strategic plans, including Plant Health Strategies and Value Chain Development Strategies.
- Emergency Response: FAO and WFP jointly co-chair the Drought Response under the Agriculture and Food Security Cluster led by the government through the Ministry of Agriculture, providing technical support and resource mobilisation.

Co-creating local solutions for decolonising food systems

To conclude this session, **Ms Chikwe Mbweeda**, *Country Director for CARE International*, presented on *Breaking the Silos: Co-creating Local Solutions for Decolonising Food Systems*. The presentation drew on CARE International's experiences of breaking silos and co-creating solutions using local knowledge and resources. Ms Mbweeda explained that agroecology is not about working in silos but about embracing diverse perspectives and promoting local solutions to decolonise food systems and advance food sovereignty.

Colonised Food Systems

Colonised food systems are characterised by colonial legacies marked by dependency, exploitation, inequality and environmental degradation. Production is concentrated in the hands of a few corporations producing food at an industrial scale, resulting in soil degradation, food quality issues, affordability challenges, health hazards and greenhouse gas emissions. These systems rely on foreign science that is largely exclusive of indigenous knowledge systems and local context.

Seed production and marketing are concentrated in the hands of seed companies, which have entrenched their narrative to discredit local and traditional seeds in order to perpetuate complete dependency on their hybrid varieties. Inputs are prohibitively costly and beyond the reach of most farmers, and the damage to the environment and human health is significant. The industrial fertilisers and chemicals used deplete the soils, leaving farmers perpetually reliant on these external inputs for any production to be possible. Farmers are compelled to wait for external inputs despite having local materials at their disposal. This represents a form of total colonisation that demands urgent transformation.

Ms Mbweeda explained that silo-based approaches often perpetuate these injustices, hindering the realisation of inclusive and sustainable food systems.

DECOLONISING OUR FOOD SYSTEMS

Decolonisation will entail breaking silos through greater collaboration and the embracing of diverse perspectives, particularly from marginalised groups, including women farmers. Breaking silos will entail:

- *Transcending disciplinary boundaries and fostering collaboration across sectors, communities and stakeholders.*
- *Embracing diverse perspectives and indigenous knowledge systems, and co-creating holistic solutions that address the multifaceted challenges facing food systems.*
- *Collaborating with farmers, communities and other stakeholders to develop context-specific solutions grounded in local knowledge and practices.*
- *Using participatory approaches to empower farmers to innovate and adapt agroecological practices to their unique socio-cultural and environmental contexts.*
- Dismantling power imbalances, reclaiming ancestral foodways and recognising the inherent rights of communities to control their own food systems, that is, food sovereignty.
- Embarking on a journey of justice and liberation from oppressive structures and restrictive seed laws that create barriers to local innovation.

- *Formulating policy frameworks that prioritise human health and environmental sustainability alongside production and productivity.*
- *Embracing science that more fully integrates indigenous knowledge, building on what has worked and continuously improving upon it.*
- *Ensuring that women and girls play a central role in food production decisions, given that they are often the primary caregivers yet frequently have limited access to productive resources.*

Source: Presentation by Ms Chikwe Mbweeda, May 2024

Box 4: *Decolonising our Food Systems*

Ms Mbweeda concluded by calling on all participants to act by:

- Committing to agroecology and environmental sustainability, and collectively driving transformative change in the food system.
- Prioritising local solutions, amplifying the voices of women farmers and advocating for policies that support agroecological practices.
- Seizing the moment to shape a future where food sovereignty, social justice and ecological harmony are the cornerstones of food systems.
- Embracing the spirit of collaboration and blending science with local knowledge in working towards the decolonisation of food systems.
- Collectively committing to build inclusive, equitable, resilient and regenerative food systems that nourish both people and the ecosystem.

OPPORTUNITIES FOR PROMOTING LOCAL SOLUTIONS

Key areas for promoting local solutions include:

- ***Agroforestry:*** *Integrating trees and shrubs into agricultural landscapes to enhance biodiversity, soil fertility and ecosystem resilience.*
- ***Crop Diversity:*** *Promoting the cultivation of diverse crops, including traditional and indigenous varieties, to increase resilience to pests, diseases and climate variability.*
- ***Organic Farming Practices:*** *Adopting organic farming methods such as composting, crop rotation and natural pest control to minimise reliance on synthetic inputs and promote soil health.*
- ***Water Harvesting and Conservation:*** *Implementing water harvesting techniques such as rainwater harvesting, contour bunds and soil conservation measures to improve water availability and reduce soil erosion.*
- ***Conservation Agriculture:*** *Embracing Conservation Agriculture (CA) principles, namely, minimal soil disturbance, soil cover and diversified cropping systems to enhance soil health and reduce degradation.*
- ***Traditional Knowledge Systems:*** *Drawing on the wealth of traditional knowledge held by local communities to identify and implement sustainable practices adapted to local conditions.*
- ***Community Seed Banks:*** *Establishing community seed banks to conserve and exchange traditional crop varieties, ensuring seed security and preserving agrobiodiversity.*
- ***Integrated Pest Management (IPM):*** *Implementing IPM strategies that combine biological and cultural control methods to manage pests and diseases while minimising negative impacts on the environment and human health.*
- ***Farmer Field Business Schools (FFBS):*** *Facilitating FFBS and participatory learning approaches to empower farmers with technical and business knowledge and skills in agroecological practices, fostering peer-to-peer learning and innovation.*

Source: Presentation by Ms Chikwe Mbweeda, May 2024

Box 5: *Opportunities for Promoting Local Solutions*

SESSION 8: SYNTHESIS FROM THEMATIC GROUPS AND THE NEXT STEPS

Moderator:	Mr Nkandu Chikonde
Topic	**Presenter**
Group 1: Agroecological Production Technologies Recommendations	Mr Adrian S. Zulu *FIAN International-Zambia*
Group 2: Agroecological Trade and Markets Recommendations	Ms Diana Mapulanga *CTDT*
Group 3: Policies and Legislation Frameworks Around Agroecology Recommendations	Ms Vivien Ngoma *CARE International*
Group 4: Farmer Managed Seed Systems and Biodiversity Conservation Recommendations	Ms Lumbiwe Mwanza *CSO-SUN*
Group 5: Women and Youth in Agriculture Recommendations	Ms Mkondo Lwamba *FIAN International Zambia*
Group 6: Information and Networking Recommendations	Ms Chimika Lungu *PELUM Zambia*
Group 7: Integrated Pest and Disease Management for Crops and Animals	Ms Nomsa Chisomo Tembo *CABI*
Next Steps	Ms Gertrude Siame, *CARITAS*

This session provided an opportunity to reflect on the Conference's two-day discussions and their implications for the transformation of the agricultural food system in Zambia. Seven rapporteurs presented their groups' final observations, which were followed by closing remarks. The rapporteurs' recommendations revolved around seven key themes that underpinned the seven breakaway groups:

1. Agroecological production technologies
2. Agroecological trade and markets
3. Policies and legislative frameworks around agroecology
4. Farmer-managed seed systems and biodiversity conservation
5. Women and youth in agriculture
6. Information and networking
7. Integrated pest and disease management for crops and animals

Group 1: Agroecological Production Technologies - Recommendations Presented by *Mr Adrian S. Zulu, FIAN International, Zambia*

- The government must streamline policies to support agroecology research and practices.
- Stakeholders must consolidate and harmonise existing policies related to agroecology and establish a clear implementation framework and funding mechanisms.
- There is a need to identify and work with agroecology champions at the highest level, such as key personnel at the relevant ministries and the Chairperson of the House of Chiefs.
- There is a need to position rural development as a key growth driver by advocating for policies that empower people to live well in rural areas rather than merely subsisting.
- This should include deliberate support for institutions providing quality healthcare, education and savings services, in order to improve overall living standards and prevent the migration of rural populations to urban areas.

- The government needs to invest in promoting indigenous crops and agricultural practices rather than relying solely on donor funding. By taking ownership of the challenge and investing in sustainable solutions, the government can support farmers more effectively and ensure the long-term success of the agricultural sector.

Group 2: Agroecological Trade and Markets - Recommendations Presented by *Ms Diana Mapulanga, CTDT*

- There is a need to strengthen advocacy for supportive policies and infrastructure for agroecology products, as well as to increase and improve productivity.
- There is a need to increase consumer awareness about the benefits of agroecologically grown foods. Given the increase in non-communicable diseases such as cancer, awareness about what is being consumed must be improved.
- There is a need to enhance linkages for better trade between farmers and markets, as well as between small- and large-scale farmers, to improve information flow.
- There is a need for the effective regulation of agrochemicals and pesticides being imported into the country, particularly those chemicals that are already banned on international markets, such as in the European market, but are still being imported into the country.
- There is a need for enhanced regional cooperation in promoting agroecological farming, with standards streamlined between national and regional policies for agroecology products.

Group 3: Policies and Legislative Frameworks Around Agroecology - Recommendations Presented by *Ms Vivien Ngoma, CARE International*

- There is a need to strengthen and harmonise existing policies related to agroecology.
- There is a need for increased participation of farmers in policy formulation and decision-making processes.
- There is a need for the increased use of indigenous resources and knowledge in the promotion of agroecological farming practices.

Group 4: Farmer-Managed Seed Systems and Biodiversity Conservation - Recommendations Presented by *Ms Lumbiwe Mwanza, CSO-SUN*

- Adequate indigenous seed banks should be established in all provinces to protect and preserve indigenous seed varieties that are at risk of extinction, thereby conserving the diversity of plant and crop species.
- A clear policy framework should be developed for promoting the use of traditional seeds in the same way that hybrid seeds are promoted.
- There should be increased financing for agroecology as a movement and for the preservation of traditional seeds.
- The business community, civil society organisations and other private sector players should strengthen collaboration in promoting traditional seeds and innovations, and in enhancing markets for indigenous foods.
- There is a need for greater empowerment of farmers to control their seed resources, enhance food security and reduce dependency on commercial seed markets.
- There should be increased awareness of the importance of agroecological practices in ensuring food security and crop diversification.
- There should be a multi-sectoral approach to building sustainable agriculture and promoting scaling up of agroecological practices.

Group 5: Women and Youth in Agriculture - Recommendations Presented by *Ms Mkondo Lwamba, FIAN International Zambia*

- There is a need for data reform, comprehensive gender analysis and sex-disaggregated statistics on women and young people in the agriculture sector, so that responses and programmes are accurate and relevant.
- The experiences of women cannot be separated from the broader, more complex issues affecting the agriculture sector in Zambia, including lack of access to fair trade, the dominance of markets by private sector players and the exploitation of small-scale farmers. This requires deliberate, targeted policies aimed at the integration and empowerment of women in agroecology.
- There is a need for inclusivity and diversity to ensure an intersectoral approach that amplifies marginalised voices. There should be quotas for leadership positions at all levels, including at the local level.
- Women and youth are disproportionately affected by climate change and are expected to adapt and build resilience without sufficient support in terms of information, inputs and financing. Their limited access to land further constrains their access to financing. This requires targeted policies and programmes specifically aimed at the empowerment of women and youth.

Group 6: Information and Networking - Recommendations Presented by *Ms Chimika Lungu, PELUM Zambia*

- There is a need to support evidence-based research in agroecology. Farmers need to be shown convincing agroecology demonstration plots, and stakeholders must move away from deliberating on agroecology matters based solely on anecdote and emotion rather than evidence.
- There is a need to accelerate and enhance knowledge management by building agroecology knowledge at the national level and extending outreach to grassroots communities.
- There is a need to increase media engagement and the dissemination of agroecology information through platforms such as radio, television and social media. Information disseminated should be packaged to suit various groups, including women, youth, persons with disabilities and different age groups, and should be available in local languages to ensure it is accessible and meaningful to grassroots communities.
- Policies and procedures developed should aim to provide access to markets and seeds, and should be informed by wide stakeholder engagement so that they are able to respond effectively to the needs of the people.

Group 7: Integrated Pest and Disease Management for Crops and Animals - Recommendations Presented by *Ms Nomsa Chisomo Tembo, CABI*

- There is no place for the use of inorganic fertilisers, herbicides and pesticides in agroecology (as noted by Dr Bridget O'Connor from KATC).
- The deployment of dissemination pathways for Push-Pull Technology (PPT) should be aimed at optimising approaches that suit different socio-cultural contexts and farmers' literacy levels. The selection of new companion plants, such as edible legumes, in the push-pull technology can help increase adoption rates. Information should be more practical than theoretical to help small-scale farmers grasp different technologies; farmer field schools, for example, are a useful platform for demonstration.
- To control some pests, farmers should use controlled grazing and foraging. For example, poultry such as small chickens and ducklings can help to control pests in tomato fields, while chickens can be released among cattle to deter flies and other pests.
- Biological pesticides can be developed in collaboration with farmers who are adept at using biopesticides such as various combinations of garlic, chilli, Tephrosia and other natural inputs to control pests such as armyworms, aphids and mites.

- A combination of these technologies can be effective in ensuring optimal yields for agroecological farmers.
- There is a need for a multi-sectoral response involving collaboration with partners, including extension officers and the private sector, as well as the establishment of information exchange hubs that will play a key role in championing integrated pest and disease management.

Next Steps

Ms Gertrude Siame from Caritas presented the next steps as agreed upon by participants at the conference. Please refer to Box 6 below.

NEXT STEPS IN AGROECOLOGY IN ZAMBIA

The next steps in agroecology in Zambia were presented by Ms Gertrude Siame, Programme Specialist for Livelihoods and Climate Change at Caritas Zambia. She outlined the following planned activities:

- Finalise the agroecology conference communiqué and ensure its endorsement by all key stakeholders.
- Disseminate the agroecology communiqué to key stakeholders, cooperating partners, the government and members of parliament.
- Produce a policy brief based on the learnings and recommendations from the conference and share it with key stakeholders and policymakers.
- Hold media awards to acknowledge and recognise journalists who have been reporting on agroecology.
- Establish an annual national seed and food festival.
- Engage with parliamentarians to advocate for a private member's motion on agroecology in Parliament.
- Continue sensitisation on the National Agroecology Strategy and engage the Ministry of Agriculture to finalise it and adopt an implementation framework.
- Engage with all stakeholders to refine the National Agroecology Strategy and ensure that it is formally launched.
- Continue to strengthen the agroecology movement so that all actors can speak with one voice.

Source: Presentation by Ms Gertrude Siame, May 2024

Box 6: *Next Steps in Agroecology in Zambia.*

SESSION 9: CLOSING REMARKS

The vote of thanks was delivered by Mr Muketoi Wamunyima, Country Coordinator for PELUM Zambia, who thanked all participants for their overwhelming participation, commitment and dedication to the conference. He noted that attendance remained consistent throughout the two days, a testament to the importance of the subject matter to the country. He urged participants to maintain the momentum of the agroecology movement and wished all participants well before inviting the Guest of Honour, Honourable Reuben Mtolo Phiri, to officially close the conference. The minister's speech was delivered on his behalf by Mr **Joseph Cheelo**, Director of Policy and Planning at the Ministry of Agriculture.

In his closing remarks, the Honourable Minister thanked the participants, organisers, partners and, most importantly, the farmers who are the primary stakeholders in the agroecology movement. The Guest of Honour then invited His Royal Highness Chief NKambo to deliver the final remarks to close the Conference.

His Royal Highness Chief NKambo, Chairperson of the House of Chiefs, began his address by reminiscing about the purity of God-given food resources from the Garden of Eden, where man lived and produced food in harmony with the environment, and where that knowledge was passed on for generations. He reflected on the hunter-gatherer era, during which roots, fruits, fish and animals exemplified a balanced interdependence with the environment.

Even as mankind transitioned to the agricultural age, crops such as millet, sorghum and cassava were grown, and animals were kept. The environment was user-friendly, the soils were rich with natural humus, farming was accessible to any able-bodied person, and harvests were good. Food storage was simple yet effective.

Continuing his address, His Royal Highness noted that even after Zambia's independence in 1964 and up until the 1980s, the soils were still productive enough to support food production, and nearly every family had sufficient food. The government taught farmers sound farming practices, and farmers' training centres were established in every district with adequate extension officers covering both crops and livestock. There were government farms, factories and research stations, including facilities for producing local seeds and local animal breeds that were largely disease-free. A variety of food crops were grown across different seasons, making food available almost throughout the year.

His Royal Highness lamented the changes that came with the 1990s, when the advent of technology, science and commerce through the introduction of hybrid seeds, the crossbreeding of exotic animals and the use of chemical fertilisers fundamentally altered ways of farming and living. The expansion of farming land reduced wildlife habitats, contributing to the human-animal conflict that persists

Admittedly, while mechanisation brought higher yields and higher income for local farmers, it also caused significant damage to the environment. The consequences included soil degradation, rising farming costs, food shortages, the proliferation of pests such as armyworms, ecosystem destruction, disrupted natural systems, increased poverty and hunger, the emergence of new diseases such as cancer, altered food tastes and, ultimately, climate change manifesting in disrupted rainfall patterns and the degradation of water bodies. Multinational corporations took advantage of this shift by introducing their own seeds and technologies, causing local farmers to abandon local seed varieties and traditional farming practices.

His Royal Highness warned that further challenges arose following the introduction of GMOs, compounded by inconsistent government policies on food security. He expressed deep concern that multinational corporations are now seeking to criminalise local seed through the domestication of international conventions, a development he described as very unfortunate for an emerging, predominantly rural agricultural country such as Zambia. He affirmed that the chiefs are opposed to the introduction of any law in Zambia restricting which seed varieties inhabitants can grow, and expressed appreciation for NGOs and other organisations that are similarly opposing seed control legislation in Zambia. He called upon the government not to enact the Seed Bill.

His Royal Highness concluded by congratulating the organisers, participants and funders of the first-ever Agroecology Conference in Zambia for making it a success, and extended his blessings to all present for their efforts in taking the country back towards a harmonious and cordial relationship with nature.

RECOMMENDATIONS BY HIS ROYAL HIGHNESS CHIEF NKAMBO

All well-meaning Zambians and partners are called upon to support the following practices:

- Oppose the enactment of the Seed Control Bill in Zambia.
- Return to growing traditional foods and adopt the sustainable agricultural practices that were practised by our forefathers.
- Reduce the use of chemical fertilisers and transition to the use of organic manure.
- Support and practise agroecology.
- Eat locally grown, home-grown organic food.
- Begin sharing local seeds within and across communities.
- Government, through the Food Reserve Agency (FRA), should purchase locally produced seed varieties, including maize, sorghum and millet, during the 2024/25 farming season, as a means of encouraging increased production of these crops.
- Local universities and research institutions should begin identifying the nutritional value of traditional foods and fruits so that consumers can be advised on how to incorporate them into a balanced diet.
- Government and seed companies should begin packaging and selling local seeds through local agro-dealers and consider exporting them to other countries.
- Allow Zambia to develop at its own pace, without being pressured into adopting foreign lifestyles and food systems.

Source: Closing Remarks by His Royal Highness Chief Nkambo, May 2024

Box 7: *Recommendations from His Royal Highness Chief NKambo*

Conference Breakaway Session Topics, Attendance and Recommendations

14.9% Agroecological Production Technologies

- Government must invest in promoting indigenous crops and agricultural practices rather than relying solely on donor funding.
- By taking ownership of the challenge, government can support farmers more effectively and ensure long-term success.

10.1% Agroecological Trade and Markets

- Increase consumer awareness about the benefits of agroecologically grown foods, given the rise in non-communicable diseases.
- Enhance linkages for better trade between farmers and markets, and between small-and large-scale farmers.

14.0% Policies & Legislative Frameworks Around Agroecology

- Strengthen and harmonise existing policies related to agroecology.
- Increase participation of farmers in policy formulation and decision-making.
- Increase use of indigenous resources and knowledge in promoting agroecological farming practices.

20.6% Farmer-Managed Seed Systems & Biodiversity Conservation

- Establish indigenous seed banks in all provinces to protect seed varieties at risk of extinction.
- Develop a clear policy framework for promoting traditional seeds alongside hybrid seeds.

21.9% Women and Youth in Agriculture

- Implement data reform and comprehensive gender analysis so that programmes are accurate and relevant.
- Develop deliberate, targeted policies for the integration and empowerment of women in agroeology.

8.7% Information and Networking

- Support evidence-based agroecology research and demonstration plots.
- Build agroecology knowledge at the national level and extend outreach to grassroots communities.

9.6% Integrated Pest & Disease Management for Crops & Animals

- Optimise deployment of Push-Pull Technology to suit different socio-cultural contexts and literacy levels.
- Use farmer field schools as practical demonstration platforms for agroecological pest management.

Figure 2 and Figure 4: Summary of All Breakaway Sessions – Zanbia's First Agroecology Conference, Lusaka, May 2024.

Figure 3: *Conference Plenary Sessions*

Figure 5: *Conference Participants*

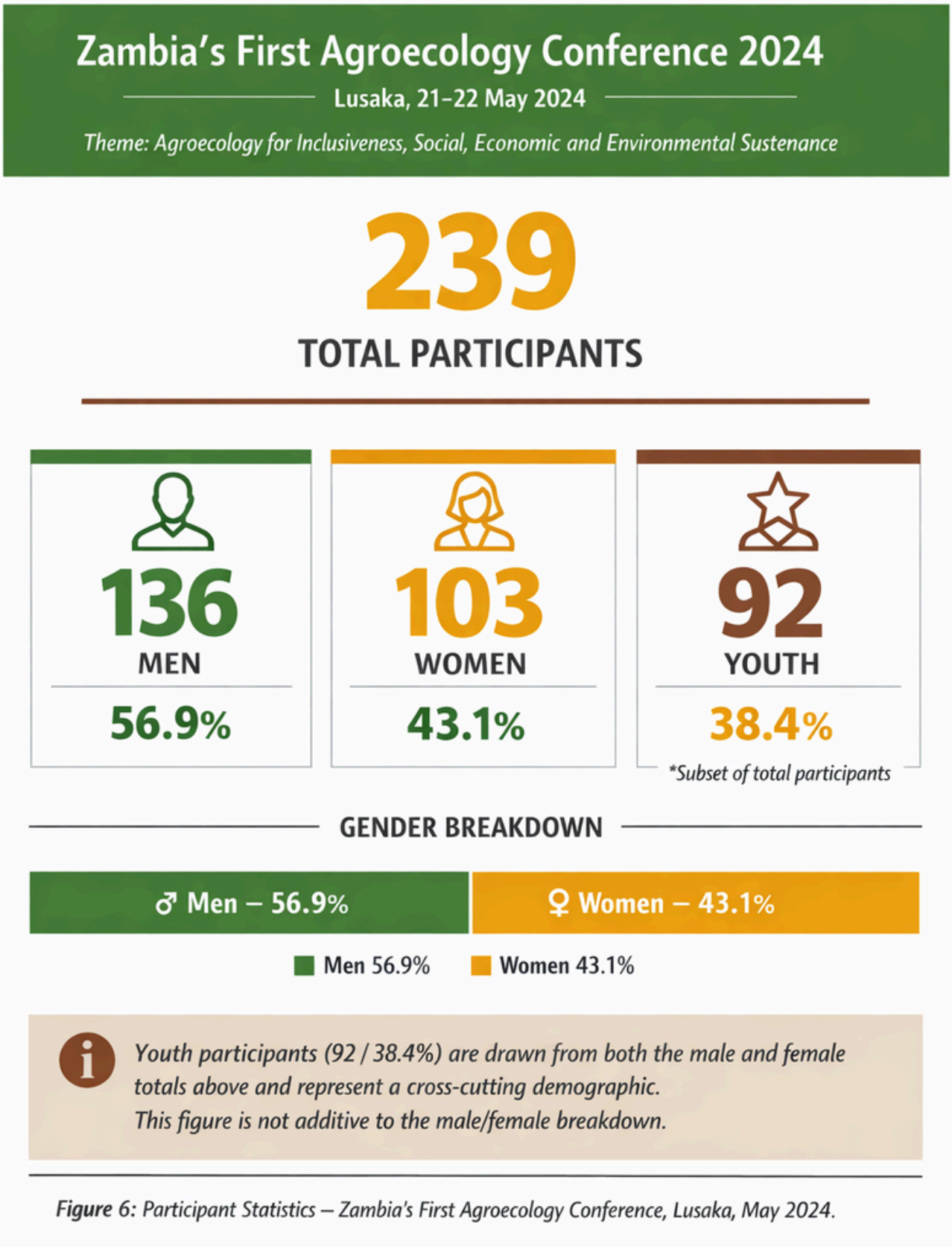


***Figure** 6: Participant Statistics – Zambia's First Agroecology Conference, Lusaka, May 2024.*

PARTICIPATING ORGANISATIONS

Zambia's First National Agroecology Conference brought together a diverse range of institutions representing government, civil society, research, academia, farmer organizations, development partners, and the private sector. The broad participation reflected the multi-stakeholder nature of agroecological transformation.

The following institutions were represented:

ActionAid
AGRICOM
Agricorp News
AQUASCARE
AU_ECOSOC
Brooklyn Agro
CABI
Caritas Kabwe
Caritas Solwezi
Caritas Zambia
Catholic Relief Services
Chibila Veg
Converge
Copperbelt University
CREATE
Crop Care
Cropnuts
CSO_SUN
DARS
Doveline Engineering and Agriculture
Embassy of Sweden
Environment Africa
ESSAF Zambia
European Union
Fambidzanai
FIAN
FIZ
Food & Agriculture Organisation (FAO)
Germany Embassy
Girl Child's Destiny
GIZ
Grassroots Trust
Green Domain
Green Living Movement
HIVOS
Hot FM Radio
House of Chiefs
ICIPE
ICIPE NAIROBI
Jesuit Centre for Theological Reflection
Kamano Seed
Kasisi Agriculture Training Centre
Keepers Zambia Foundation
Khumbilo
LACA Identity Systems
Levy Mwanawasa Medical University
Life Care for Single Mothers
Lifecare for Single Mothers Foundation
Loctaguna
Lusaka City Council
Mbeza Royal Establishment
Millennium Radio
Ministry of Agriculture
Ministry of Fisheries and Livestock
Ministry of Green Economy and Environment
Ministry of Local Government & Rural Development
Mulungushi University
Mumbwa DWA
Musika
Namibian Nature Foundation

Namibian Organic Association

NARO_VG

National Agriculture Information Services (NAIS)

National Food and Nutrition Commission

National Union for Small Scale Farmers in Zambia

Natural Resource Development College

NIRAS

Nkoka Women in Agro Business (NWAB)

Nuggets

Nutri-Aid Trust

NUTRIAID

NWAB

Oxfam

Organic Producers and Processors Association of Zambia (OPPAZ)

PEA

PELUM Zambia

People's Process on Housing and Poverty in Zambia (PPHPZ)

Powering Young Initiatives

RECODF

ReSCOPE

Rural Women's Assembly

SADC

SADC Plant Genetic Resource Centre

SADC Youth Network

SAFCEI

SAOSO

SCOPE Zambia

Seed Control and Certification Institute (SCCI)

Select Seed

Self Help Africa

SEPA

SIA

Sustainability Institute (South Africa)

The Observer

Total Landcare

University of Zambia (UNZA)

VSO

We Effect

World Food Forum

WWF

Young Emerging Farmers Initiative (YEFI)

Zambia Agriculture Research Institute (ZARI)

Zambia Alliance for Agroecology and Biodiversity (ZAAB)

Zambia Climate Change Network (ZCCN)

Zambia Development Agency

Zambian Adulteens Sustainable Health Organisation (ZASHO)

ZAMSOF

ZASHO

ZCBNRM Forum

ZDM

ZEMA

ZUNDU

ZYOA

Networking for a Greener Africa

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