THE POTENTIAL FOR AGROECOLOGY IN MALAWI: A POLICY ANALYSIS

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Photo credit: Rachel Bezner Kerr

Agroecology has the potential to transform the current agriculture and food system in Malawi. In this brief, we reviewed 19 agrarian and environmental policies, key strategic plans and parliamentary acts of Malawi and their alignement with agroecological principles.

KEY MESSAGES

- Overall, the performance regarding agroecology support in all reviewed policies was low.
- The three policies with the highest scores were the Malawi Vision 2063, the National Agricultural Policy and the National Resilience Strategy, they were above 25% of possible scores, however, were still low.
- The principles that were supported the most in current Malawian policies and plans were the principles on social values and diets, biodiversity and economic diversification.
- The principles that were given the lowest priority were the principles on input reduction, recycling, animal health, connectivity, synergy, as well as knowledge co-creation.
- A diverse array of collaborative actions involving different stakeholders awaits the consideration of the Government of Malawi.
- A National Agroecology Strategy could support transformative change to a sustainable, equitable, thriving and resilient agriculture and food system for all in Malawi.

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MARGARET MWANZA STANDING IN A GROUNDNUT AND PIGEONPEA FIELD WITH HER GRANDSON.

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1. BACKGROUND AND CONTEXT: SMALL-SCALE AGRICULTURE MATTERS IN MALAWI & IS AT RISK

CONSIDERING THE RISK THE TRIPLE CHALLENGES OF CLIMATE CHANGE, LOSS OF BIODIVERSITY AND LAND DEGRADATION POSE TO MALAWI'S ECONOMY AND LIVELIHOODS OF OVER 80% OF THE POPULATION, THAT DEPEND ON SMALL-SCALE FARMING, THERE IS AN URGENT NEED TO TRANSFORM THE AGRICULTURE AND FOOD SYSTEM IN THE COUNTRY.

In Malawi, over 80% of the population depend on small-scale farming for their livelihoods. Smallholder farmers, despite being resource challenged and highly vulnerable to environmental shocks, produce about **70% of the food consumed** at household and national levels (FAO, 2015). The agriculture sector also plays an important role in the national economic development and poverty reduction. In 2022, the agriculture sector contributed **22.1% to the Gross Domestic Product (GDP)** and in general it accounts for over 80% of the total export earnings (World Bank, 2017; 2023). Considering the importance of the agriculture sector, the Government of Malawi has allocated considerable resources to increase the agricultural production and productivity (GoM, 2016).

Agricultural subsidies are a typical way that governments aim to increase agricultural production and productivity. In Malawi, agricultural subsidies have existed since independence and have evolved over time. The current subsidy program is called the Affordable Inputs Program (AIP) and in the 2023/2024 fiscal year, the government allocated approximately MK117 billion of the MK455.1 billion allocation to the agriculture sector representing 25.7% of the public expenditure (E.N. pers. Comm.). This large investment is aimed at achieving agricultural development and food security, which would translate into national economic development and poverty reduction. These are some of the key priorities of the Government of Malawi in its quest of achieving the United Nations Sustainable Development Goals as well as national development goals. Unfortunately, this investment in agriculture through subsidies has not yielded anticipated positive results. For instance, food insecurity and malnutrition are widespread in the country. According to the Integrated Food Security Phase Classification report (2023), about **4.4 million people representing 22% of the total population are facing acute food insecurity.**

The food insecurity situation is exacerbated by high levels of poverty where over 70% of the population of about 19.1 million people lives below the international poverty line of $1.90/day (IPC, 2023). While concerns have been raised about the potential negative impact of the AIP on people's nutrition, specifically in terms of food diversity (Walls et al., 2023), there is evidence that shifting the subsidy towards agroecology could improve nutritional outcomes (Kasanga et al., 2021; Owoputi et al., 2022).

Besides poverty and food insecurity, significant threats to the sustainable development goals of Malawi are **climate change, loss of biodiversity** and **land degradation.** Malawi is ranked as one of the 27 most vulnerable countries to the adverse effects of climate change, ecological, food security threats (IEP, 2022), with 90% of agriculture reliant on rainfall, making it a highly susceptible sector despite its national importance (GoM, 2020). A recent manifestation of high vulnerability to climate change was the devastating Tropical Cyclone Freddy that affected the southern region of Malawi. The cyclone destroyed approximately 200,000 hectares of cropland and left thousands of resource-challenged farming households homeless and in need of food aid. Smallholder farmers suffer from climate related shocks in different ways through droughts, dry spells and floods, erratic and unreliable rainfalls. The Malawi Country Climate and Development Report (2022) shows that climate change impacts could result in 20% annual losses of the GDP. Further to this, the Intergovernmental Report on Climate Change (IPCC, 2022) reports that climate change impacts exacerbate existing social and economic inequalities, particularly for the vulnerable.

Climate change is also negatively impacting biodiversity, leading to loss of biodiversity in the wild and plant genetic resources for food and agriculture. The loss of biodiversity is worsened by policies that support

maize monocultures and intensive use of synthetic inputs, whose main focus is high yields of a few crops, often downplaying the need to conserve the environment and restore degraded ecosystems. Consequently, Malawi has experienced a significant loss of biodiversity and degradation of agricultural land, which are both important in climate change adaptation and food and nutrition security.

Agriculture is one of the major causes of land degradation and biodiversity loss, as a result of land use changes and poor agricultural land management practices, including overuse of synthetic fertilizers and intensive monocultural production (IPBES, 2019; Olsson et al., 2019). In Malawi, the major form of land degradation is soil erosion, with an estimated rate of 29 tons per hectare per year (FAO, 2016). About 51% of the rural population in Malawi reliant on agriculture lives on degraded land (UNCCD, 2018). Land degradation means the loss of key ecosystem services, such as less clean water provision, and lower ability to produce food. Implementing agroecological practices can help to restore degraded land, leading to improved food production and water quality and building a more resilient system in the face of climate risks.

Considering the risk these triple challenges pose to Malawi's economy and livelihoods of over 80% of the population, that depend on small-scale farming, there is an urgent need to transform the agriculture and food system in the country. Agroecology, a holistic approach that promotes nature friendly farming practices and social justice, has been gaining traction, including in Malawi. Promotion of a more sustainable and resilient agriculture and food system can result into poverty reduction, food security and right to food, as enshrined in the constitution, alongside restoration of biodiversity and degraded agroecosystems. These achievements will help Malawi on a path to achieving the Sustainable Development Goals and Malawi's Vision 2063.

Figure 1 | Principles of Agroecology (Wezel et al. 2020)

2. AGROECOLOGY AS A STRATEGY TO TRANSFORM THE CURRENT AGRICULTURE & FOOD SYSTEM

AGROECOLOGY CAN BE DEFINED AS A HOLISTIC AND INTEGRATED APPROACH THAT SIMULTANEOUSLY APPLIES ECOLOGICAL AND SOCIAL CONCEPTS AND PRINCIPLES TO THE DESIGN AND MANAGEMENT OF SUSTAINABLE AGRICULTURE AND FOOD SYSTEMS (HLPE, 2019).

Agroecology has been gaining traction as an important food system approach that increases resilience to climate change, conserves biodiversity, restores degraded ecosystems while addressing human needs, including food security, nutrition, livelihoods and social equity. Agroecology can be defined as a holistic and integrated approach that simultaneously applies ecological and social concepts and principles to the design and management of sustainable agriculture and food systems (HLPE, 2019). Agroecology seeks to optimize the interactions between plants, animals, humans and the environment while also addressing the need for socially equitable food systems within which people can choose what they eat, how and where it is produced. Examples of agroecological practices include crop diversification, mulching, cover crops, composting, legume crops integration, agroforestry and seed saving (Bezner Kerr et al., 2023). These agroecological practices can reduce the cost of production, conserve soil, water and biodiversity, improve soil fertility and increase resilience to climate change. Natural resources underpin most of the activities for livelihoods and thus cannot be separated from food production and human wellbeing. Agroecology embraces systems-thinking through holistic approaches which are critical in addressing complex and interdependent challenges currently being faced in the agriculture sector. The 2030 Agenda for Sustainable Development has stressed the urgent need to take concerted action and pursue policies directed at transforming agriculture and food system. Agroecology offers a solution to transforming the current food system to a more sustainable, equitable and just food system. The UN Committee on World Food Security identified 13 agroecological principles (Figure 1).

Agroecology can be instrumental in not only achieving national food security and nutrition goals (Bezner Kerr et al., 2021) but also other United Nations Sustainable Development Goals. Agroecology can directly contribute to the achievement of the UN Goals #1 (No poverty), #2 (Zero hunger), #3 (Good health and wellbeing), #10 (Reduced inequalities), #12 (Responsible production and consumption), #13 (Climate action) and #15 (Life on land) (Madsen et al., under review).

APPLYING COMPOST TO HER FIELD.

Photo credit: Gertrude Chisi, Chimbongondo village

3. POLICY REVIEW METHODOLOGY

WE REVIEWED A TOTAL OF NINE POLICIES, SIX STRATEGIES AND FOUR PARLIAMENTARY ACTS AND REVIEWED THEM BASED ON THE ALIGNMENT TO THE 13 GUIDING AGROECOLOGY PRINCIPLES.

In this study, we reviewed **19 agrarian and environmental policies, key strategic plans and parliamentary acts of Malawi** in order to understand the level of agroecology support within current policies. The analysis of the selected policies used a methodological approach previously developed by the Agroecology Coalition to assess funding programs (Moeller et al. 2023). In this brief we provide our findings related to agroecology to inform policy makers and key stakeholders and provide recommendations for improving the implementation and institutional support of agroecology.

The methodological framework that we adapted included a scoring system for the 13 agroecological principles. The authors identified a list of relevant policies, strategies and acts in Malawi which relate to agroecology, based on knowledge of Malawian policies and expertise in agroecology. We reviewed a total of nine policies, six strategies and four Parliamentary Acts and assessed them based on the alignment to the 13 guiding Agroecology principles. Using this approach, policies were systematically scored to assess their support for agroecology principles. A score of 0 indicated no support, 1 for 1-2 statements, 2 for 3-4 statements, 3 for 5-6 statements, 4 for 6-8 statements, and 5 for 8 or more supporting statements.

MALAWIAN LANDSCAPE

Photo credit: Rachel Bezner Kerr

4. POLICY REVIEW FINDINGS & DISCUSSIONS

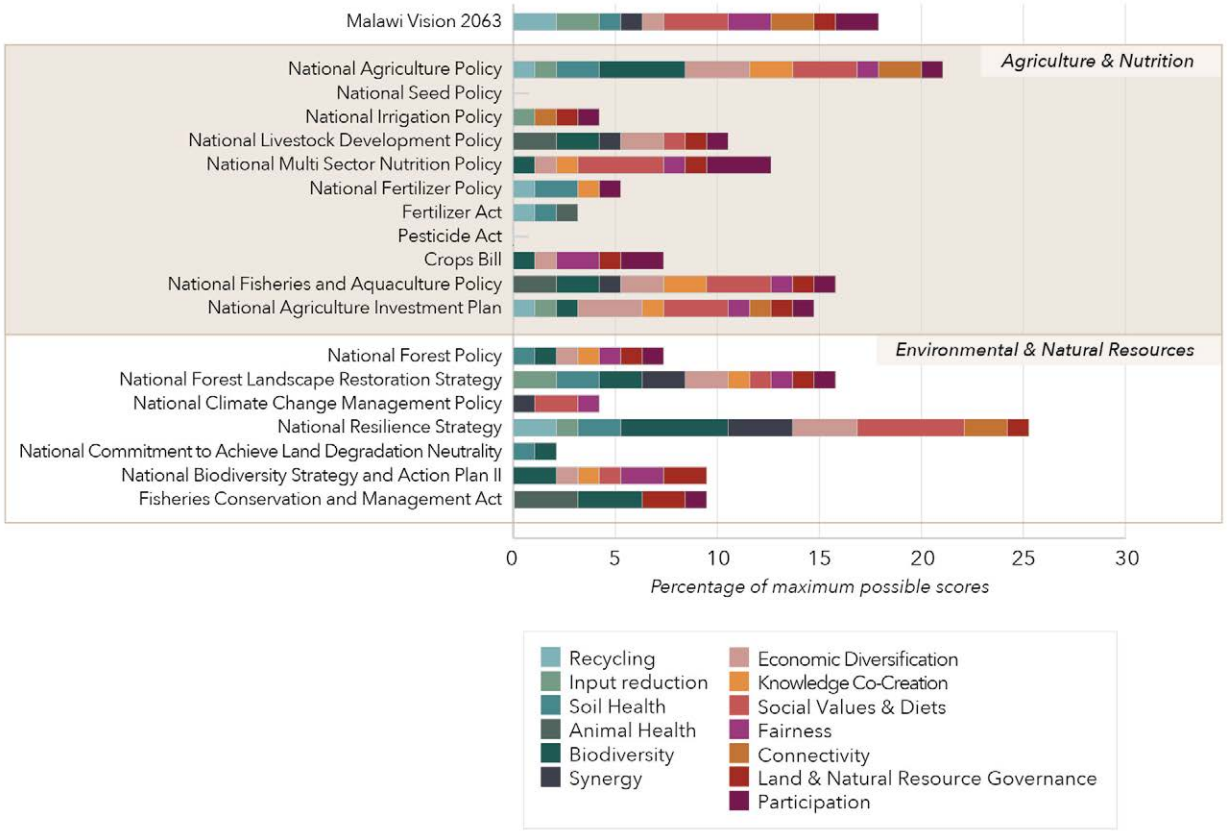

Figure 2 | Alignment of Malawian Policies with 13 Agroecological Principles

All the reviewed policies except for the National Seed Policy and the Pesticides Act have one or more statements that support different agroecological principles (Figure 2). Nevertheless, the **policies exhibited an overall low level of alignment with agroecology**, each achieving total scores that fell below 40% of the maximum possible score (Figure 3).

The policies with the highest alignment with agroecology were the **National Resilience Strategy, National Agriculture Policy 2016** and the **Malawi Vision 2063**, in that order (Figures 2, 3). It is encouraging to note that the National Agriculture Policy 2016, being an overarching policy in the agricultural sector, recognizes and supports some of the principles of agroecology. The Malawi Vision 2063, which is a long term national strategic plan, had stronger alignment with agroecology compared to the other policies. The policies with fewer statements that aligned with agroecology were Land Degradation Neutrality, Fertilizer Act, National Irrigation Policy and National Climate Change Management Policy.

In Figure 4 we show the degree of each agroecological principle for each reviewed policy. This finding indicates that the principles on **social values and diets, biodiversity** and **economic diversification** are supported the most by the reviewed Malawian policies. The least supported principles are **recycling, input reduction** and **animal health.**

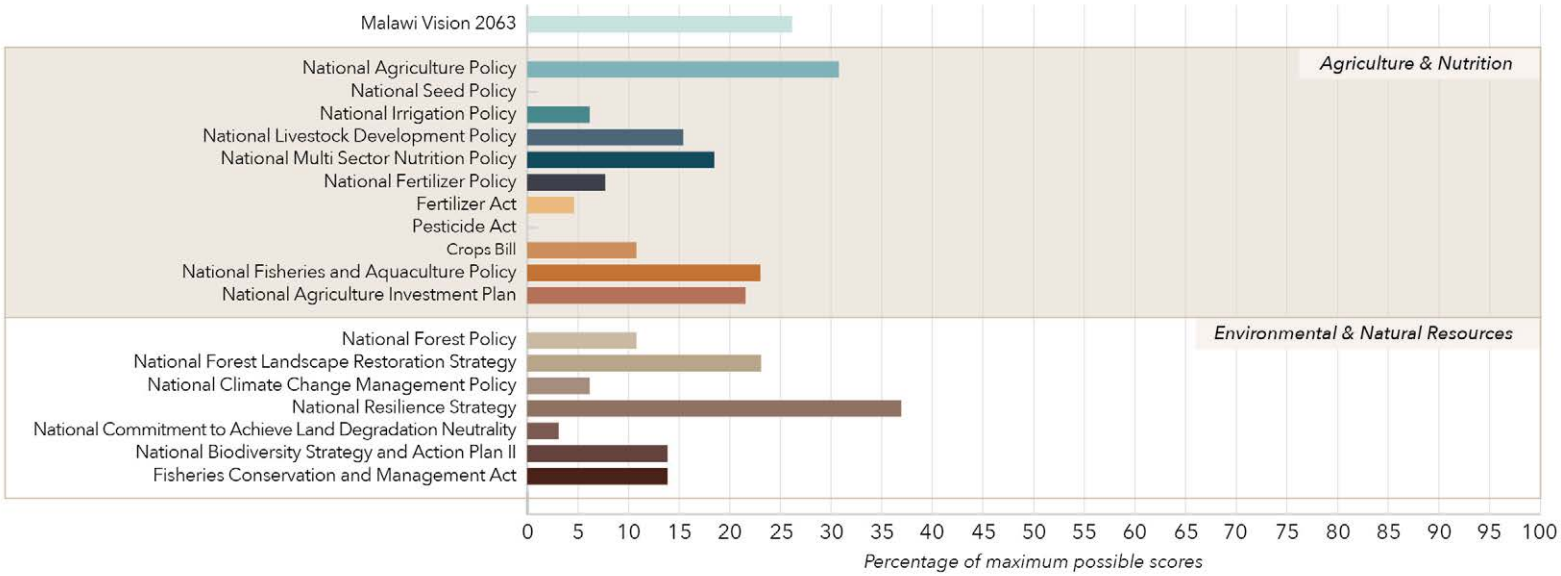

Figure 3 | Overall alignment of Policies with 13 Agroecological Principles

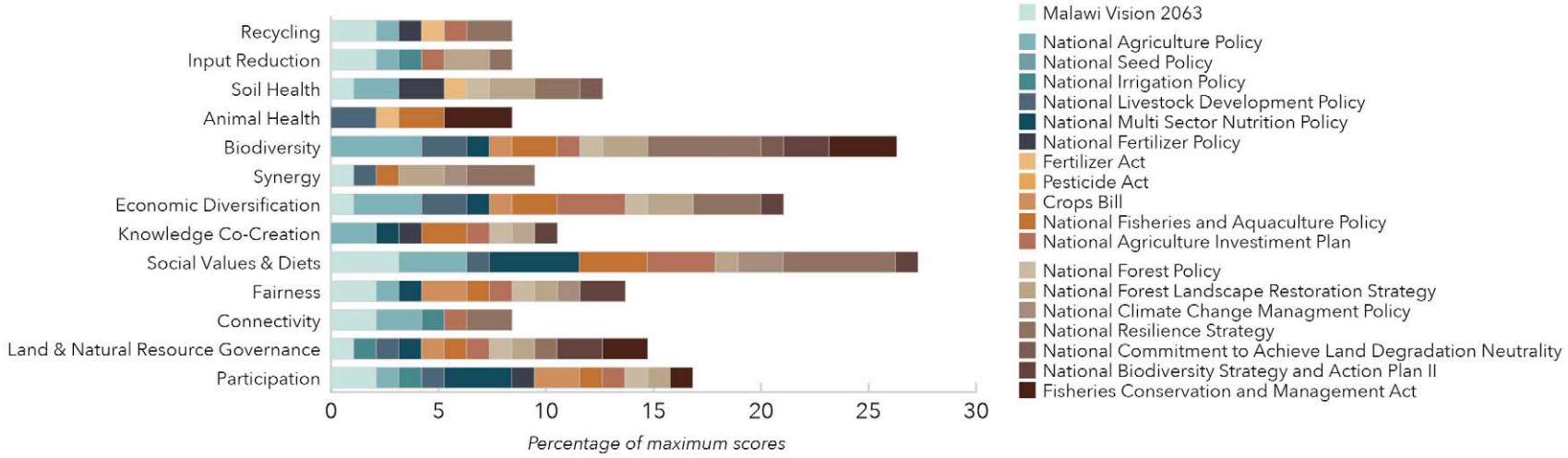

Figure 4 | Agroecological Principles and Alignment of Reviewed Policies

5. POLICY RECOMMENDATIONS

Overall, we have identified significant potential in promoting key agroecology principles and practices, particularly those related to input reduction, recycling, animal health, connectivity and co-creation of knowledge. Such principles could be supported if the policies were effectively implemented. Some examples of **actions that the government could take include:**

1. Implement a **farmer-to-farmer agroecology training program** on agroecological practices that improve soil health and crop productivity and reduce use of purchased synthetic fertilizers and pesticides, using compost, legume residue incorporation, cover crops, botanical pesticides and other methods. Agroecological training programs would include **addressing gender, youth and other social inequities** using participatory methodologies such as gender transformative approaches. Such training programs have already been effectively tested in Malawi and shown to increase crop productivity, household food security and dietary diversity alongside gender equity in decision-making and workloads (Bezner Kerr et al., 2019; Madsen et al., 2021; Kansanga et al., 2020).

2. Support the **development of agroecological markets** in towns and cities across Malawi, that provide spaces, training, awareness raising and educational support for promotion and sale of value-added agroecologically-produced food products and agroecological inputs such as compost. This action would support Vision 2063 while also increasing access to healthy local diverse food products in urban settings.

3. Reduce **funding for synthetic fertilizer** in the Agricultural Inputs Program and repurpose the savings to invest in the above-described programs. This action would support greater economic stability for government programs and reduced dependence on imported inputs.

4. Support **training in agroecology** within **agricultural extension** programs, including the support of **farmer-led training programs** that encourage **farmer experimentation** and **co-production of agroecological solutions to climate change impacts** with scientists in ways that respect indigenous and local knowledge. This action would ensure long-term sustainability of programs and capacity-building in rural populations. Farmer experimentation and co-production of knowledge has been successfully implemented in Malawi, resulting in innovative and sustainable solutions (Bezner Kerr et al., 2019b; Kansanga et al., 2021; Snapp et al., 2023).

5. Implement **community-based land restoration and natural forest regeneration** programs using agroecological principles of fairness, participatory governance and right to land and water for smallholder farming communities. A key part of such actions would be developing alternative energy sources to charcoal for urban residents. This set of actions would help sustain biodiversity and ecosystem health and ensure long-term resilience of rural communities to climate change impacts, thereby supporting the National Resilience Strategy.

In order to be fully transformative and holistic, and to not have contradictory policies that work against success, a **National Agroecology Strategy** would be a powerful tool to streamline government efforts. Other countries in the region have already launched similar policies. **Uganda** carried out a consultative process, drafted and approved the National Organic Agriculture Policy (NOAP, 2019). This policy has 7 priority areas: research, education, production, value addition, certification, markets, natural resources and indigenous knowledge. The Uganda NOAP recognizes the role organic agriculture can play in addressing issues of fair prices for producers, biodiversity and human health. **Tanzania** has statements about organic agriculture in its National Agriculture Policy (2013) and has developed a National Ecological Organic Agriculture Strategy, launched in November 2023 to operationalize these statements.

Given the political momentum around agroecology, Malawi could leverage learnings and good practices from countries in the region regarding the process of setting up a National Agroecology Strategy including scope, defining actionable measures and ensuring funding post-adoption.

A National Agroecology Strategy in Malawi would provide a structured framework to synergize efforts, leverage resources, and foster collaboration among stakeholders, ultimately driving sustainable and regenerative agricultural practices across the nation. By prioritizing the integration of agroecological principles within policies and supporting their adoption, we can pave the way for a more resilient, environmentally friendly, and socially inclusive agricultural system.

PICKING FROM A GUAVA TREE.

Photo credit: S. Nyirenda

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