



# Generational dynamics and agricultural intensification among smallholders in Malawi

## SAIRLA Research Briefing

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### At a glance

A majority of the Malawian population depends on agriculture for all or part of their livelihoods. Smallholder farmers dominate the agricultural sector and maize is the main staple crop. 83.8 per cent of Malawi's total population is under the age of 40. While elderly people still represent a small share of the country's inhabitants, their numbers have increased significantly over the past decades.

This research finds that mean maize yields among youth headed smallholders and households headed by elderly farmers have stagnated between 2008 and 2017. Qualitative interviews with youth and elderly respondents suggest that youth have limited access to land which prevent them from establishing an independent source of livelihood, and that the elderly are constrained by age and physical limitations.

In this briefing we explore youth, elderly and agricultural policies in Malawi to understand challenges related to generational dynamics among smallholder farmers in the country. The findings presented here are based on research carried out as part of the Afrint IV project 'Policy for Equity in African Agriculture' – a project designed to analyse patterns of smallholder intensification in Tanzania, Malawi and Zambia. The research comprised a review of national policies and longitudinal data on smallholder farmer agriculture intensification. The study collected data on maize yields, use of chemical fertilisers and improved seed varieties, and size of cultivated areas from 406 sampled households between 2008-2017. These were complemented by interviews with both youth and elderly groups.

### Why are generational dynamics important for sustainable agriculture?

Challenges of absorbing youth into satisfactory and sustainable employment are concerns that are placed high on the political agenda, and agriculture is seen to play a key role for youth in this respect. Within the agricultural sector employment opportunities are perceived to have the potential to meet the demand of a growing population, a more urbanised population and changing food patterns.

The positionality of the elderly with respect to agriculture and the consequences of an aging population in SSA in general is under-researched – our findings provide insight to help inform policies concerning to both.

## Findings

### Malawi policy on youth and elderly

**Finding 1: Malawian agricultural policy is of more immediate relevance to the livelihoods of the youth and the elderly in farming households, than the policies devoted specifically to these two groups.** The Malawi youth policy, as well as the Malawi policy for older persons, recognises the challenges facing both demographic groups. Although the former highlights the inherent possibilities of youth to contribute to national development it identifies underemployment and the mismatch between new jobs and new entrants as a major obstacle to unleashing this potential. On a yearly basis, 300,000 individuals enter the labour market while only 30,000 formal sector jobs are created annually. For the elderly, the lack of a social security system for those who have not been formally employed means that the majority are not entitled to a pension. For both groups, a continued dependence on farming is the only viable, short-term option, underscored by the fact that nearly 85 per cent of the Malawian population resides in the rural areas of the country.

### Agricultural intensification among youth and elderly

**Finding 2: The possibilities for increasing maize production for young and elderly smallholders through SAI are yet to be realised.** As the largest staple crop in Africa (Andersson, 2011), maize is the focus of this research. Smallholder farmers grow over 90 per cent of the maize produced in Malawi. Limited resources of land and assets constrain most smallholder farmers from producing a surplus of maize to sell (Jayne et al. 2010).

In total, 406 households were surveyed in the Afrint IV study, out of which 403 grew maize. Afrint's longitudinal data from 2008-2017 indicate stagnant maize yields in general. Dividing the data by demographic groups, shows that yields were unchanged among the youth headed households, standing at an average of 1190 kg/ha per household for the 2006-2008 growing seasons, compared with 1186 kg/ha per household for the 2015-2017 seasons. Similarly, the elderly's average maize yields were 1031 for the first phase of the project and 1021 for the 2015-2017 growing season. By contrast, the middle-aged group increased their yields from 1152 kg/ha to 1317 kg/ha during the same period. This suggests that intensification dynamics play out unevenly based on demography. Nonetheless, yields in general are very low.

**Finding 3: Figures suggest that youth headed households are relatively weakly positioned with respect to access to land.** In terms of total cultivated area, youth on average cultivated 0.60 ha in 2017, compared with 0.83 ha for households headed by elderly, and 0.79 ha for the middle generation. Qualitative interviews with youth confirm that they have limited access to land. This is a consequence of the older generation postponing land transfers, or finding alternative uses, for instance renting it out rather than transferring it to their children. Population growth results in land fragmentation over time as new generations inherit smaller pieces of land compared with earlier ones.

Issues of land fragmentation and limited rural prospects for youth more generally, require complementary social protection measures as these households are unable to subsist on agriculture alone.



**Finding 4: By contrast, the yields of elderly smallholders are kept down by low labour**

**productivity.** Due to age they are physically weak and lack energy, at the same time agriculture is their only livelihood option. Physical limitations constrain these farmers with respect to farming techniques and crop diversification. To address problems of physical weakness tied to old age, policies outside agriculture are more relevant, for instance expanded health infrastructure in rural areas and a basic income guarantee for the elderly.

**Finding 5: The share of youth who grew improved varieties of maize was 60.3 per cent, compared with 42.1 per cent among elderly headed households, suggesting a higher technology uptake among younger households in this regard.**

Data on the use of chemical fertiliser and improved varieties of maize suggest that usage has been stable but low both among youth and the elderly, throughout the project period. For the 2017 growing season, the share of youth-headed households who used chemical fertiliser was 51.5 per cent, almost identical to the use among households headed by elderly, 51.7 per cent.

**Finding 6: A sizeable gap exists between average maize yields and the highest yield (nearly 4500 kg/ha) attained among the surveyed farmers, suggesting considerable scope for general yield improvement even within existing village conditions.**

Explanations for low maize yields may be linked to high population pressure, falling soil productivity, poverty and high incidences of disease all of which lower labour productivity. Small farm sizes, lack of crop residues as well as limited access to inorganic fertilisers prevent the regeneration of soils. Lack of well-functioning markets to sell potential surplus further limit the incentives to produce (Andersson, 2011; Andersson Djurfeldt et al. 2018).

To enhance smallholder agriculture in general requires a host of policy interventions, for instance improved rural infrastructure, enhanced access credit and agricultural inputs.

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### Further reading

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## About Afrint IV

Afrint IV – Equity and Institutions in Sustainable African Intensification – is implemented by the Department of Human Geography at Lund University in cooperation with the University of Malawi, Sokoine University of Agriculture, the University of Zambia and LUCSUS. It is supported by the Sustainable Agricultural Intensification Research and Learning in Africa programme (SAIRLA). For more information about Afrint IV see <https://sairla-africa.org/what-we-do/research/policy-for-equity-in-african-agriculture-afrint-iv/>

## About SAIRLA

SAIRLA is a UK Department for International Development funded initiative that seeks to address one of the most intractable problems facing small-holder farmers in Africa – how to engage in the market economy and to deliver sustainable intensification of agriculture which avoids negative impacts on the environment. The programme is managed by WYG International Ltd and the Natural Resources Institute, University of Greenwich. For more information visit [www.sairla-africa.org](http://www.sairla-africa.org)

