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Growing soya. out for poverty? legume-based agro-ecological intensification and agricultural change in Malawi

JENS ANDERSSON¹, RACHEL MKANDAWIRE², KEN GILLER³

¹ *Wageningen University & Research, Plant Production Systems Group, The Netherlands*

² *FANRPAN,*

³ *Wageningen University & Research, Plant Production Systems, The Netherlands*

Abstract

This article examines the recent surge in smallholder soyabean production in Malawi, analysing the factors driving the transition away from tobacco towards leguminous crops. It discusses the role of agricultural research and of heavily donor-supported policies in to improving Malawi's food security situation, to diversify cropping systems and reducing smallholders' dependency on artificial fertilisers for maize cultivation – Malawi's main food crop. While the Starter Pack/TIP policy (1998–2004) distributed fertiliser and seeds, including legume seeds, to diversify cropping systems, the programme largely failed to increase smallholder legume production and national food security. Under the succeeding Agricultural Input Subsidy Programme (AISP), which distributed far larger amounts of legume seeds and stimulated the development of the legume seed sector, legume-based crop diversification took off. Yet, policy was not the driver of change. Contextual factors such as an expanding soya processing industry, the decline of smallholder tobacco production and, particularly, rapidly rising fertiliser prices, have driven legume-based crop diversification. The article questions whether this 'soya revolution' has been beneficial for farmers' incomes and food security.

Legume-based crop diversification is often seen hailed as a strategy for the agro-ecological intensification of smallholder farming systems. Nitrogen fixation provides additional nutrient inputs and can reduce smallholders' fertiliser dependency. As higher legume yields – particularly of soyabean and pigeon pea – augment the N-effects of legume integration, increasing legume yields is a priority in this strategy. However, soyabean yields in Malawi remain low. While on-farm experiments have shown significant yield increases with phosphorus fertiliser, their high cost and farmers' preferential use of fertiliser on maize, make fertiliser-driven production intensification unlikely. (Semi-)organic fertilisers, such as compost manure and 'Mbeya' fertiliser are highly labour intensive and short in supply. To improve Malawi's food security situation through legume-based (agro-ecological) intensification requires access to, and affordable phosphorus fertilisers, high quality inoculants and improved agronomy – notably (the fertilisation of) soya-maize crop rotations and higher seeding rates. Resource constraints are likely to limit the benefits of such soyabean-based production intensification for Malawi's most impoverished farmers. They are likely to grow soya out of poverty, rather to get out of poverty.

Keywords: Africa, agricultural change, crop diversification, soyabeans, sustainable intensification

Contact Address: Jens Andersson, Wageningen University & Research, Plant Production Systems Group, Wageningen, The Netherlands, e-mail: jens.andersson@wur.nl