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Selected themes:

- Agriculture-food systems, environment, and nutrition and health outcomes
- Innovative methods and metrics in agriculture-food systems and nutrition/health research

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Title: Farmers' adaptive strategies in agricultural commercialisation and food and nutrition security in Myanmar

Introduction <100>

Food systems in Myanmar are rapidly changing. Existing supply chains are adapting to economic, environmental, market and dietary changes. This study explored farm household sense-making processes in relation to these rapid transitions, and the implications for household food and nutrition security. Three theoretical lenses were used: *salutogenesis*, focusing on coping mechanisms and understanding well-being; *positive deviance* to understand how farmers guarantee sustainable livelihoods through (commercialisation) strategies in an environment where others fail; and *social innovation* to explore dynamics and interactions among nutrition-, and agriculture-oriented actors, policies and interventions.

Methods <200>

The study comprised of two components. Based on a framework to analyse development pathways enhancing both commercially viable agriculture and food and nutrition security at farm household level, 1) a review was done of the major developments at multiple levels (public, private, development) in Myanmar's agricultural transition, and 2) semi-structured interviews were done using a life course perspective (timeline technique) with selected farming households (n=14) in the Dry Zone of Myanmar. A purposive sampling strategy was used to select smallholder households (<5 acres) in four villages in Pakokku region, engaged in market-oriented agriculture for at least 10 years, experiencing positive developments in agriculture (i.e. an increase of their production), in food and nutrition security (i.e. dietary diversity), and using new technologies or social innovation strategies. Transcripts were analysed using open coding (QDA Miner Lite) software.

Findings and interpretations 200

Pathways related to production as a source of food, and income, alongside (price) policies affecting supply and demand of food and non-food crops. The review showed a 'silo mentality': investments in agriculture happen apart from those in food or nutrition. A lack of quality data in Myanmar was observed, as well as a knowledge gap relating to decision-making, intra-household food allocation and cultural determinants of malnutrition.

The *timeline interviews* showed that farmers intentionally diversified their livelihood strategies over time. They diversified or changed crops in response to market fluctuations, and did not rely on agricultural income only. In order to get access to land, as youngsters they stayed with their parents, working for others and saving money until they could purchase their own lot. Farmers' sense- and decision-making strategies differed when considering agriculture production or household food security or nutrition. They use chemical inputs for profitable agri-business, but grow or buy preferably organic food for household use. Food security and nutrition concerns related to affordability of certain foods (meat, fish) and access

to organic food, rather than healthy diets. Examples of *social innovation* were, albeit few, forms of community-led organisations, in line with developments in democratisation and freedom of association.

Conclusions 200

Agricultural commercialisation and food and nutrition security are interlinked through a set of pathways, anchored in sense- and decision-making patterns. The salutogenic approach holds potential to capture adaptive strategies for health and well-being, thus contributing to deeper understanding of farm household resilience. Declarative, or factual, knowledge transmitted through nutrition education does not seem to have significant impact on food choice or selection. Procedural, or actionable, knowledge and local understandings of diets in nutrition interventions is more important, and is an interesting field to explore further. In order to monitor the impact of the food system transition in Myanmar, there is a need for a nationwide system of data collection to inform policy makers, development actors and the private sector. Also farmers are in need of access to more reliable sources of agricultural information. This study underlines that diversification of livelihood and socio-emotional support throughout the life course play a major role in successful farm and food and nutrition security outcomes. Diversification as a key strategy differs from the commonly used approaches of specialisation and intensification used by agri-businesses, and also differs from project-based approaches that present farmers with standardised, mono-directional livelihood solutions used by NGOs.