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Youth engagement in farming in conflict-affected depayin township, myanmar: a preliminary causal loop diagram

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Abstract

According to the World Food Programme (2025), Myanmar is facing a severe hunger crisis, with around 15 million people projected to experience food insecurity. Declining agricultural participation among young people is reducing the rural farm workforce and threatening domestic food production. This study, therefore, examines the drivers and constraints shaping youth engagement in farming in Depayin Township, Sagaing Region, Myanmar. We adopted a systems-thinking approach and organised data using the Iceberg Model. Data were collected through 53 semi-structured interviews with farmers, complemented by literature and secondary sources from international organisations, government reports, and news articles. Data saturation was reached at approximately 50 participants. A causal loop diagram was developed to analyse system dynamics affecting farming and youth participation. Results show that the farming system persists through a fragile balancing dynamic despite declining profitability. Small farms remain operational through remittances from family members working abroad, reflecting the outmigration of young people from farming households and a resulting loss of on-farm labour. Larger farms sustain marginal profits due to economies of scale, though profitability remains constrained. However, reinforcing dynamics driven by conflict are accelerating system decline. Airstrikes have disrupted local markets by displacing wholesalers, forcing farmers to rely on brokers who offer low farm-gate prices. Heightened insecurity discourages storage and long-term planning, leading to forced rapid sales and reduced returns. Vegetable production is particularly vulnerable due to high transport costs, taxation, confiscation risks, and spoilage. Tomato production, one of the main crops in Depayin, is approaching a collapse point within this reinforcing dynamic, as many farmers have already stopped cultivating tomatoes and shifted toward rice production, where broker networks still function. Across both farm types, most young people express a desire to leave farming due to insecurity, low profitability, and uncertain futures. Leverage points identified include improving transport safety and reducing transport-related taxation. More critically, international efforts to eliminate airstrikes against civilian and economic targets are essential, as ongoing conflict is a key structural driver of market collapse, livelihood insecurity, and youth exit from agriculture.

Keywords: Agriculture, causal loop diagram, conflict-affected farming systems, food insecurity, myanmar, rural livelihoods, systems thinking, youth engagement

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