**Local Context**

- Mae Chaem covers a total area of 2,708 km², mostly uplands, with an estimated population of 57,214.
- Only 1.4% of total land area in Mae Chaem has title deeds. The remainder is either National Forest Reserve (79.6%) or has Protected Area (19%) status.
- MC has been the focal point of numerous development projects over the last five decades, many attracting international funding.
- Maize is the latest in a long line of cash crops promoted to farmers in marginal upland areas of northern Thailand, originally introduced as substitute crops for opium.
- In 2018, there were approx. 7,150 holdings involved in planting over 16,000 ha of maize, production mostly being sold to two companies – Charoen Pokphand (CP) Group and Betagro – via middlemen traders.
- Thailand is a leading poultry processor and exporter, selling its products to Japan, UK and several other EU countries.
- In recent years air pollution from smoke haze has become a major problem across Northern Thailand, with government agencies targeting maize farmers burning crop waste as a main source. This may over-simplify a complex problem, leading to inequitable solutions.

**Major research findings**

- Mae Chaem is integrated into a global agri-food commodity system, based on animal feed maize cultivation.
- The system is dynamic and in a state of flux, socially, economically and ecologically, exposing a raft of potential threats and vulnerabilities to producers, consumers and the future sustainability of the system itself.
- Agriculture-based livelihoods are in steady decline, but still important as part of a multi-component household income mix.
- There is a dominant industrialised agri-food system and several competing alternative systems evident. Farming households are concurrently producers and consumers across systems.
- Local food markets and consumption of wild or foraged foods is in gradual decline, while agribusiness-run market outlets are growing rapidly – more heavily processed food is being consumed.

However, many intensive vegetable producers do not trust and avoid their own produce, preferring instead local or foraged vegetables, which they perceive to be “safe”.

Rural food systems subsumed under processes of globalization, financialization, commodification (“meatification”) and urbanization.

Alternative systems prioritising sustainability considerations are poorly supported by the government, beyond its own state-run model (“The Mae Chaem Model”), that is gradually being colonized by agribusiness (CP Group).

**Some Key Research Questions**

- What are the major agri-food systems identifiable in Mae Chaem district and how have they evolved over time? Do interlinkages exist between systems?
- What are main vulnerabilities and risks facing smallholder producers under present conditions, and what opportunities exist for improving system resilience?

**Policy recommendations**

- A general lack of land tenure security was a recurring issue mentioned by both farmers and civil society advocates, and needs greater attention to resolve equitably.
- Provide greater technical and financial support for holdings transitioning away from maize cultivation, including the provision of viable alternatives and neutral extension advice.
- Conduct focused research on the national & regional drivers and dynamics of animal feed maize and agribusiness involvement.
- A more comprehensive cross-scalar study of future vulnerabilities of maize cultivation to external risks is required, including the resilience of the current agri-food system.
- More detailed studies on the human and environmental health impacts of intensively farmed maize and vegetables are required.