



Professor Frank Monahan

FATTENING PRACTICES AND FEEDING PATTERN OF BEEF IN WOLAITA ZONE, SOUTHERN ETHIOPIA: EFFECT ON QUALITY, COMPOSITION AND CONSUMER PREFERENCES OF BEEF MUSCLE

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This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 778196.

Introduction

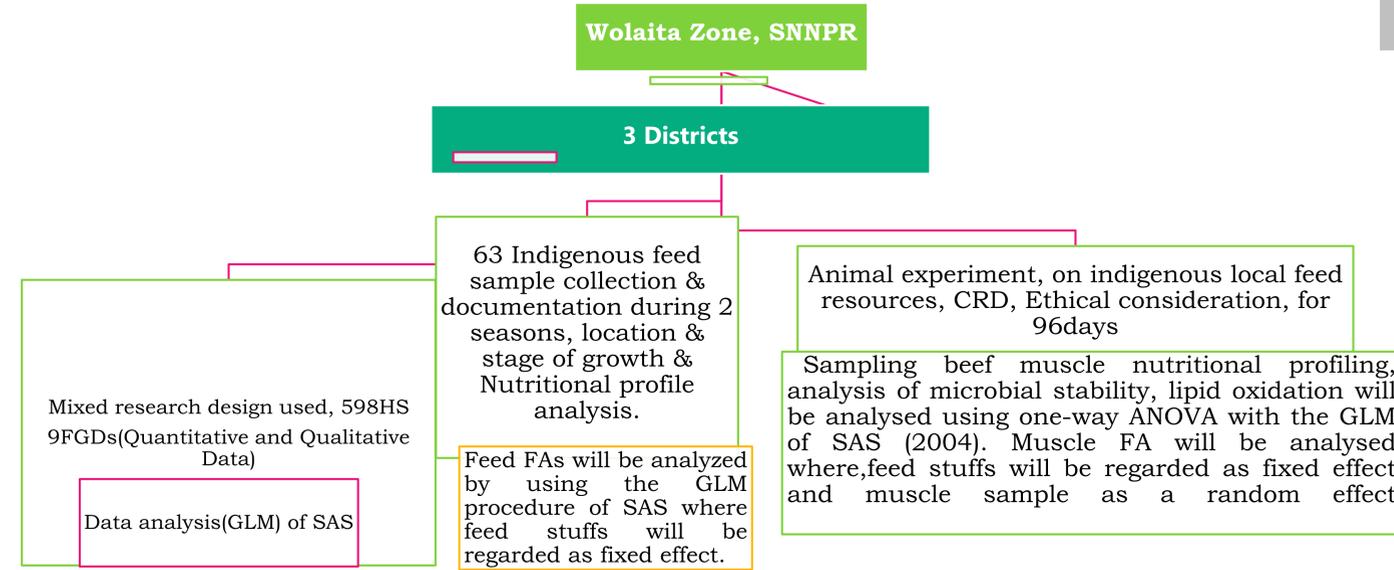
Background

Meat is a high-quality food containing valuable nutrients that are beneficial to human health especially to children and women. In the face of global concerns about the safety and nutritional quality of foods, it is necessary to understand the effects of commonly used production strategies and diet on muscle composition. Diet composition can modify beef carcass composition, fatty acid composition and type, the perceived eating quality and flavour, poly unsaturated to saturated fatty acid ratio and lipid oxidation of beef.

Ethiopia has more than 60 million cattle and high beef production potential. However, role of beef sector to either national economy or human nutrition is very low. The country produces 1.3 million tons of red meat/year. In addition to this, per-capita consumption of beef is 3.1kg/person/year which is by far lower than adjacent African countries. Similarly, about 5.8 million children of under 5 years are stunted (chronic malnourished).

The SDGs of 2030, particularly (1&12) ending poverty and hunger, improved nutrition and sustainable production and consumption are key areas related to beef sector. In the area, beef production is mainly based on indigenous feeds. However, research done so far has not addressed indigenous feeding pattern, nutritive value analysis of the common local feeds and their effect on quality, fatty acid profiles, lipid oxidation and microbial stability of beef muscle. Therefore, in this study quality, fatty acid profile, lipid oxidation and microbial stability of beef in Wolaita, Southern Ethiopia, will be addressed in a holistic way.

Methodology



Output

- ✓ Better market opportunity for beef producers through information generated and building resilience on smallholder producer's income from beef sector
- ✓ At least 3 published papers in a reputable journal(s)

Outcome

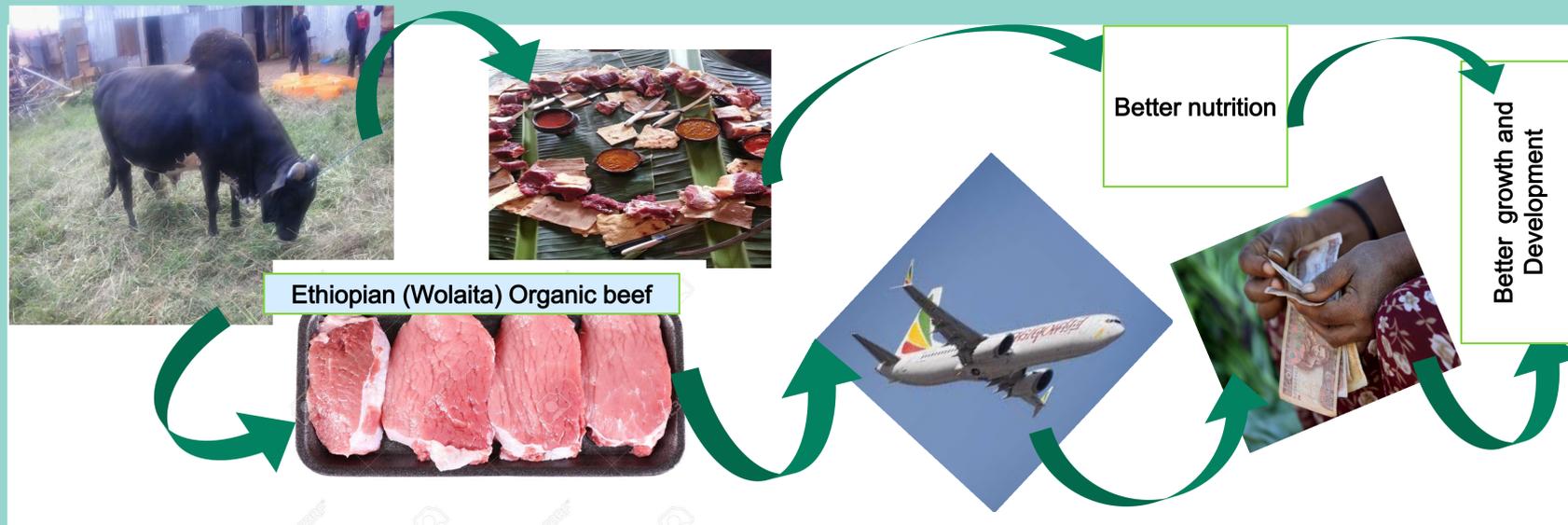
- ➊ Enhancement of farmer's income through market-oriented beef production
- ➋ Better contribution of beef sector to SGDs (improved nutrition and sustainable consumption)
- ➌ Better job opportunity for youth from beef production Sector
- ➍ Beef nutritional profiling for better market opportunity and sustainable production and healthy consumption

Research Question

How fattening practices and feeding pattern affect quality status, composition and consumer preference of beef muscle?

Objective

- ✓ To document indigenous beef fattening practice in selected districts of Wolaita Zone, Ethiopia
- ✓ To evaluate nutritive value of commonly used feeds for sustainable beef cattle fattening in the Wolaita zone
- ✓ To determine physio-chemical composition of beef in Wolaita zone
- ✓ To determine beef muscle sensory qualities in Wolaita zone
- ✓ To evaluate fatty acid profile of selected beef muscles in Wolaita zone
- ✓ To determine trace mineral elements of Wolaita beef muscle
- ✓ To determine lipid oxidation of Wolaita beef muscle
- ✓ To determine microbial Stability of Wolaita beef muscle



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