

# Using the Livestock Master Plan (LMP) process to influence pro-poor livestock development in Ethiopia and Tanzania

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# Livestock Master Plans (LMP): Motivation

- Under-investment in the livestock sector is a major constraint to the livestock sector contributing to national development goals
- Ag Ministers lack ammunition (returns on investment) to get financial resources for livestock development (from Ministries of Finance)
- Lack of human capacity for quantitative livestock sector planning is also common
- Effective livestock development requires sector analysis to understand the current situation, to set long-term strategy and make action plans
- African governments need realistic action plans (LMPs) for meeting targets in national economic development plans
- Bill & Melinda Gates Foundation agreed to support capacity building for fact-based, realistic financial planning

# Ethiopia Livestock Master Plan (LMP): Origin, Purpose, and Future

- The Ethiopia Ministry of Agriculture requested BMGF to fund capacity building of MOA staff to do fact-based livestock development planning
- The MOA asked for ILRI to provide training and backstopping
- The LMP has become the livestock development action plan under the new 5-year Ethiopia Growth and Transformation Plan
- The Gov't of Ethiopian and donors (BMGF and World Bank so far) are now funding implementation of the LMP
- BMGF has now funded ILRI to help the Tanzania MALF do a LMP
- Discussions are on-going to do LMPs in Uganda, Kenya, Rwanda, and India
- Creating LMPs in developing countries is a way to influence pro-poor livestock development

# Stakeholder Process of Developing a Livestock Sector Analysis (LSA) & Livestock Master Plan (LMP)

- Creating a LMP required “quantitative sector” analysis (LSA) but “stakeholder” involvement is essential
- Dynamic herd and sector models are built to do the 15 year livestock sector analysis (LSA) –baseline, projections and foresight analysis
- The LMP process is quantitative, but consultative. Over 50 specialists in Ethiopia provided data and parameters on animal productivity, value chains and cross-cutting issues
- Stakeholders helped create a national data base and model baselines, and helped identify potential interventions
- The Technical Advisory Committee guided the process, made technical input interventions and helped ensure the results are useful – realistic and relevant

# How was the LSA and LMP interventions chosen? with indicators of GOE goals for GTP II

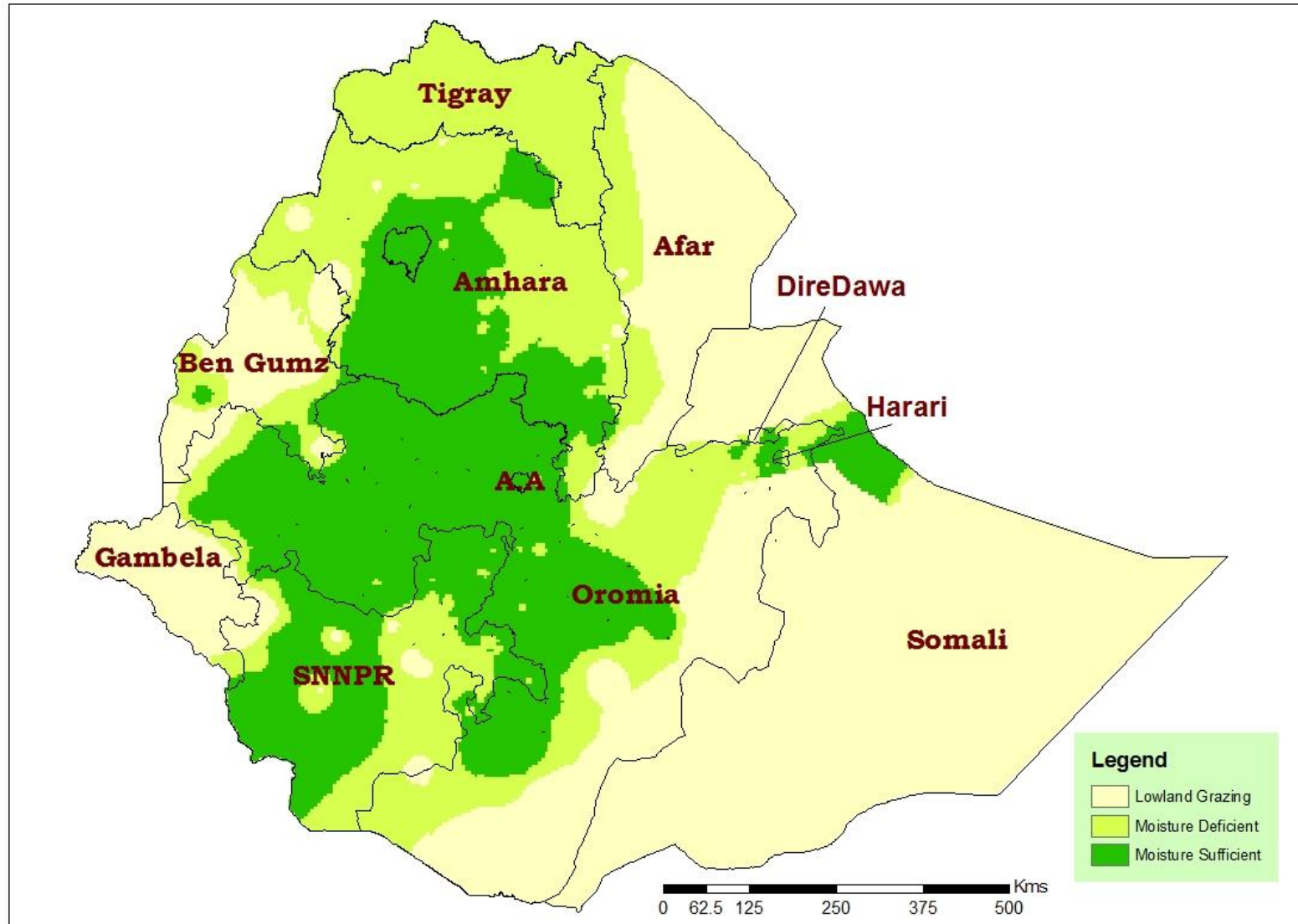
Using the livestock sector model built on a herd model, potential LMP intervention impacts were assessed against Ethiopian national development objectives for GTP II -- measured by livestock development indicators.

**The national GTP objectives (indicator in parentheses) are the following:**

- **Reducing poverty (household income)**
- **Achieving food security (production-consumption balance)**
- **Contributing to economic growth (GDP or national income)**
- **Contributing to exports (foreign exchange earnings)**
- **Contributing to climatic sustainability (GHG emissions)**

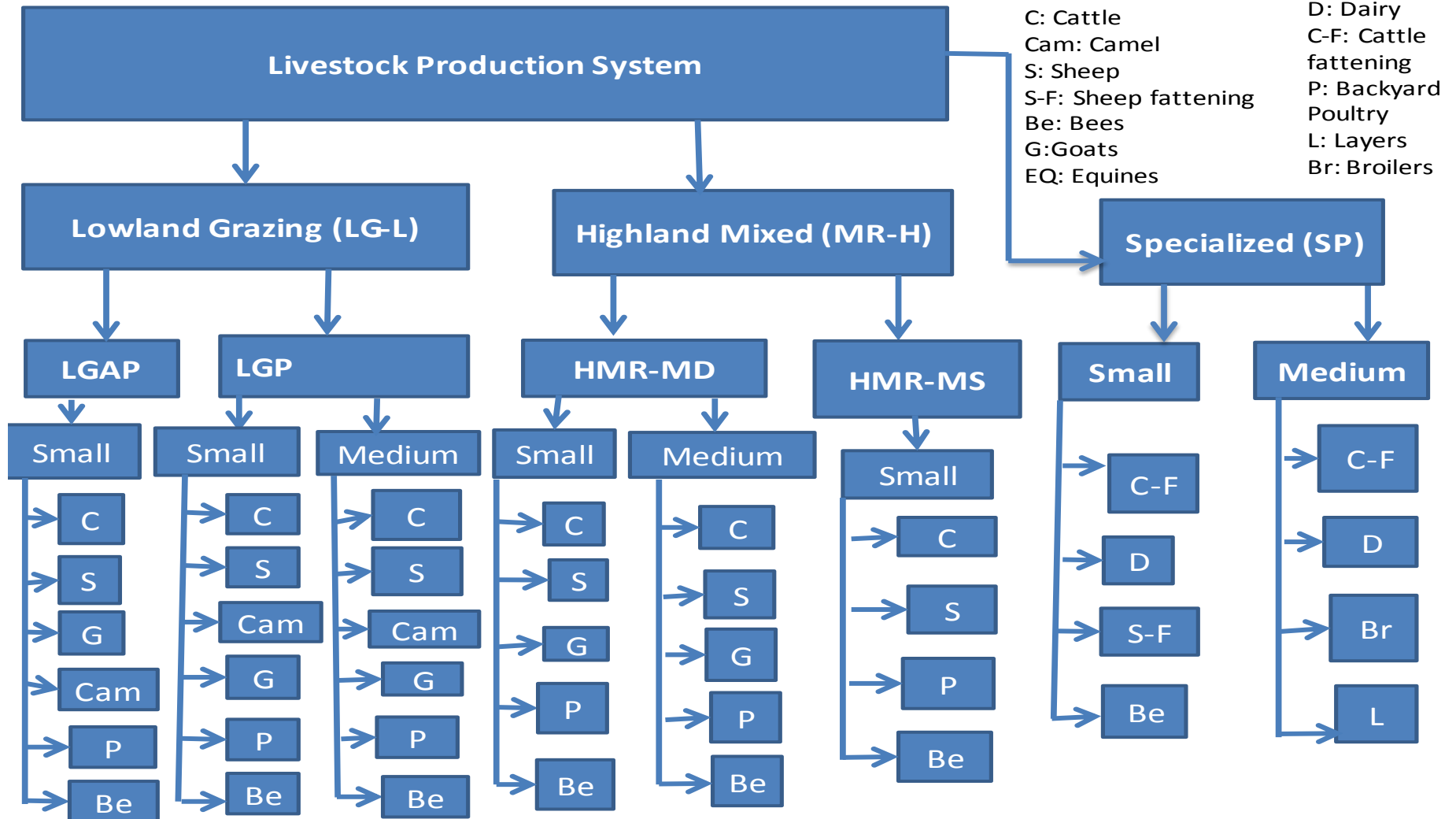
**The LSA and LMP have demonstrated the potential of the livestock sector to reach national development goals**

# Livestock Sector Analysis (LSA) Production Zones



# MOA livestock production zones and sub-zones in Ethiopia

## LSIPT application process ....



# Production and productivity parameters of cattle by production zone

## LSIPT application process ....

	Lowland Grazing (LG)			Mixed Rainfall Deficient Sufficient (MRD)		Mixed Rainfall Sufficient (MRS) Lowland Grazing (LG)		Dairy Specialized	
	AP	PS	PM	S	M	S	M	S	M
	9	7	18	2	6	3	9	5	100
Herd size	56	56	58	57	58	60	65	85	90
Parturition rate (%)	14	12	10	11	12	12	8	8	5
Mortality rate female calves (%)	6	7	6	7	7	7	6	1	1
Mortality rate female sub adults (%)	4	5	5	5	5	4	4	3	3
Mortality rate Female adult (%)	15	16	16	12	16	15	10	6	6
Mortality rate male calves (%)	9	12	12	8	8	8	6	1	1
Mortality rate male sub adults (%)	7	9	9	5	6	4	4	3	3
Mortality rate male adults (%)	11.5	10.9	11.9	11.9	11.4	11.5	10.2	32.6	35.5
Herd size	0.3	0.2	1.5	0.0	1.0	1.9	5.0	8.4	6.0



# The Six Priority Key LMP Commodity Value Chains for GTP II

## A. Dairy -- improved with AI and Synchronization, feed, and health

**1. Improved Family Dairy** systems & value chains in wet highlands and dairy belts (including peri-urban)

**2. Specialized Commercial Dairy** production & value chains

## B. Red meat (and milk) systems improved with health and feed

**1. Improved Family Red Meat-Milk** systems in all production zones (cattle, sheep, goats and camels)

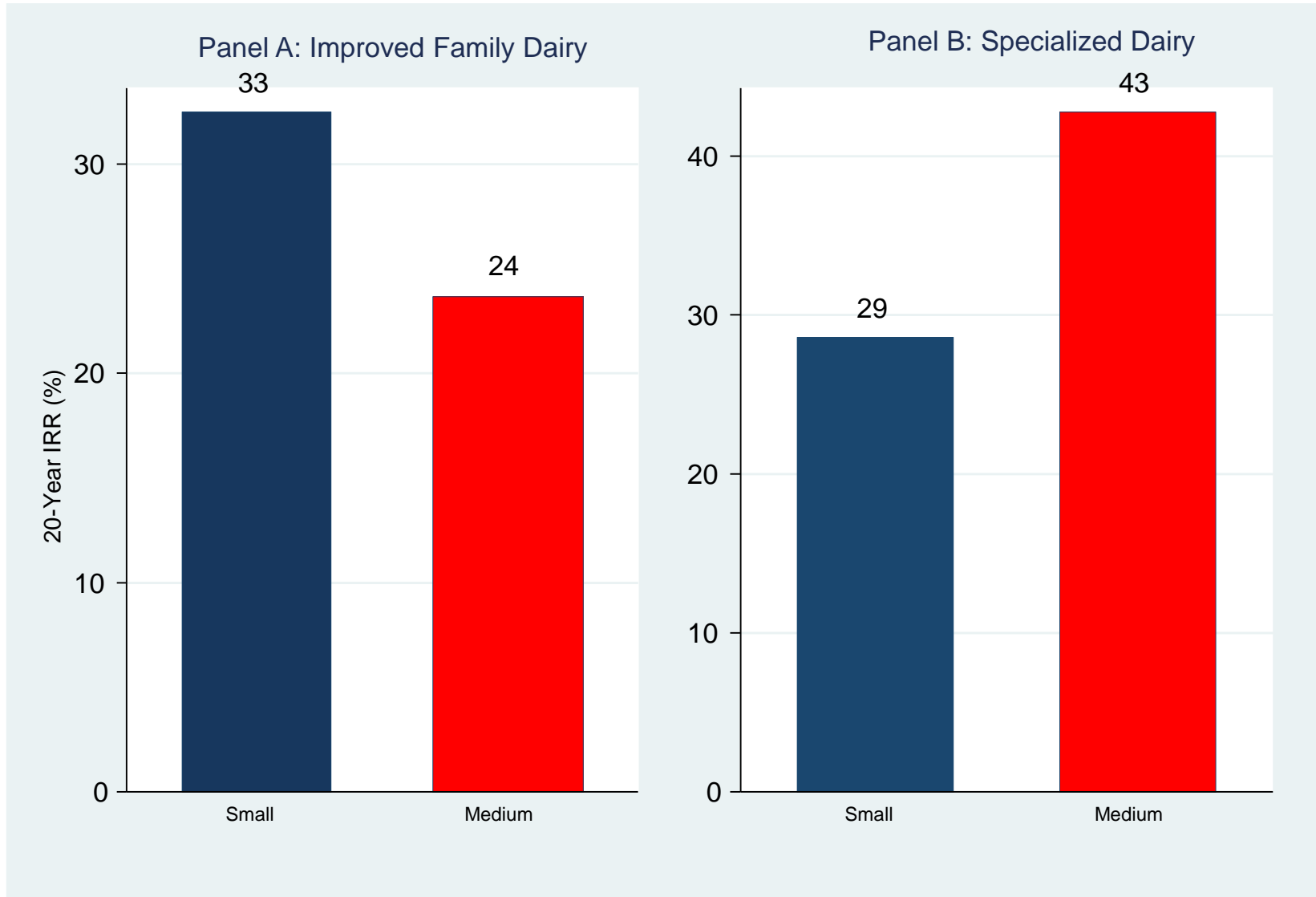
**2. Specialized Beef Cattle Feedlots and On-farm Fattening**

## C. Poultry improved with crossbreeding & exotics, health and feed

**1. Improved Family Poultry** in all production zones

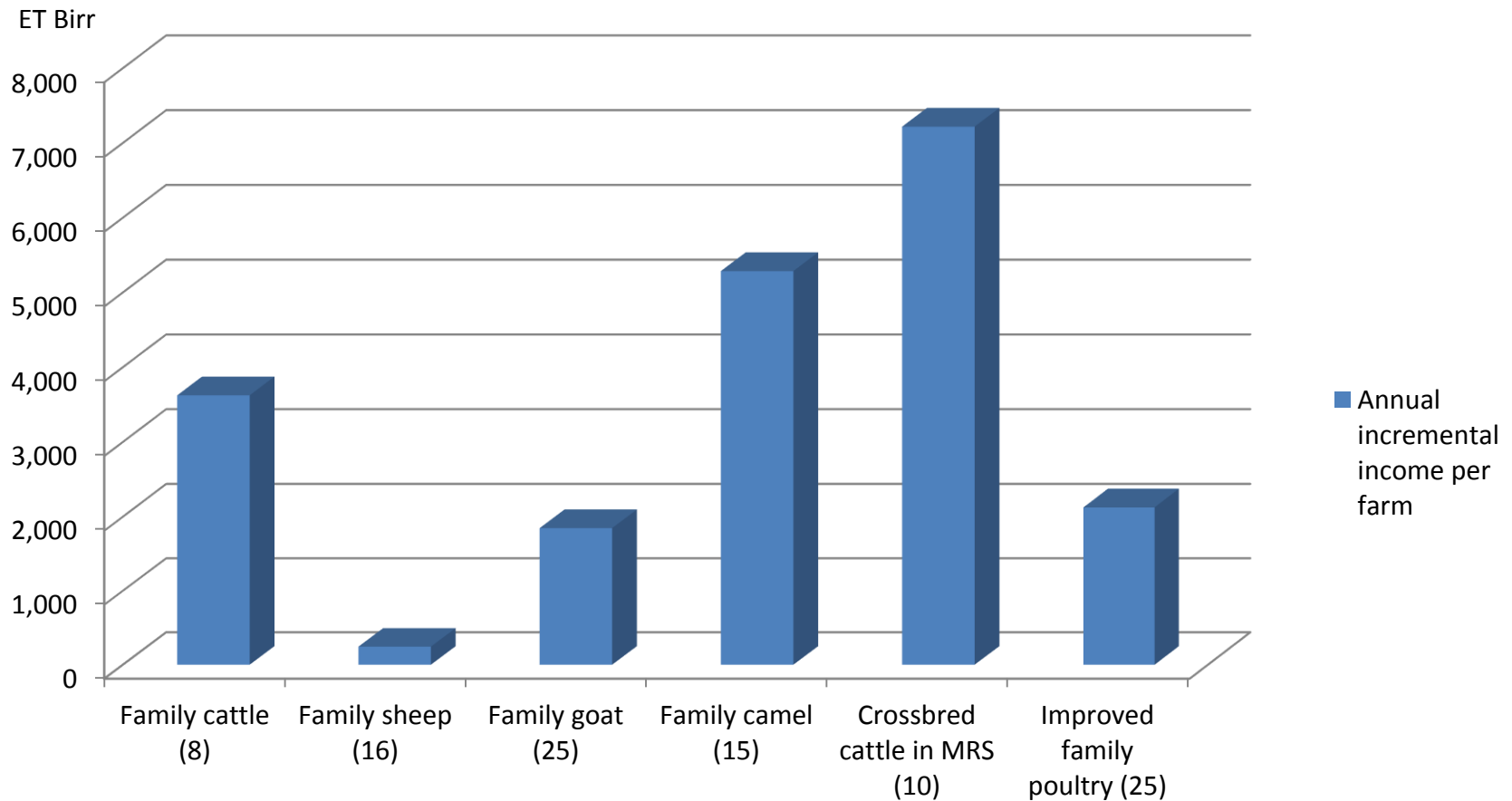
**2. Specialized Industrial Poultry** – Broilers and Layers

# Smallholder Family and Specialized Commercial Systems are both Winners in Ethiopia: Returns on Investment 2013-2028

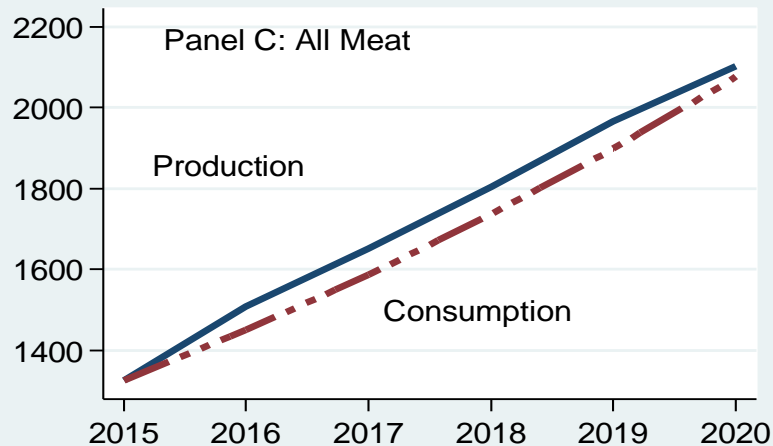
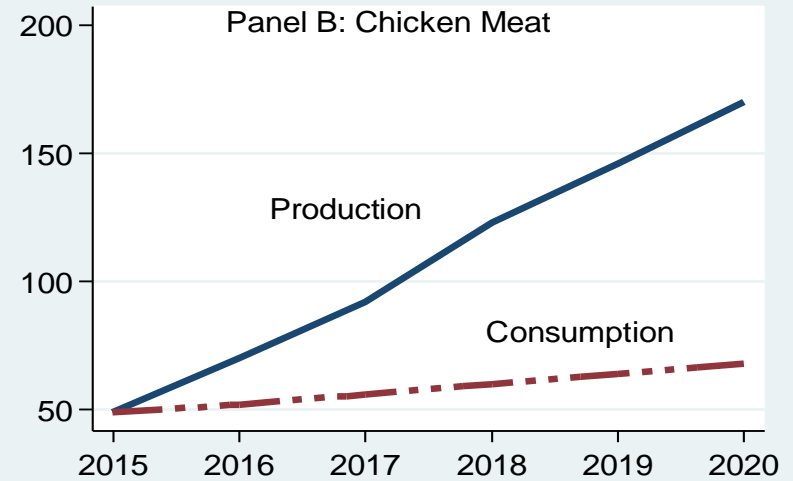
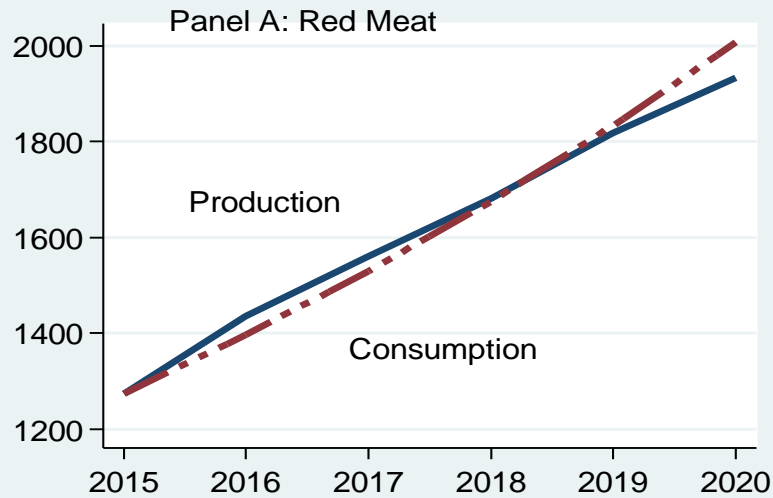


# Most animal systems can reduce poverty during GTP II

## Annual incremental income per farm (ET Birr)

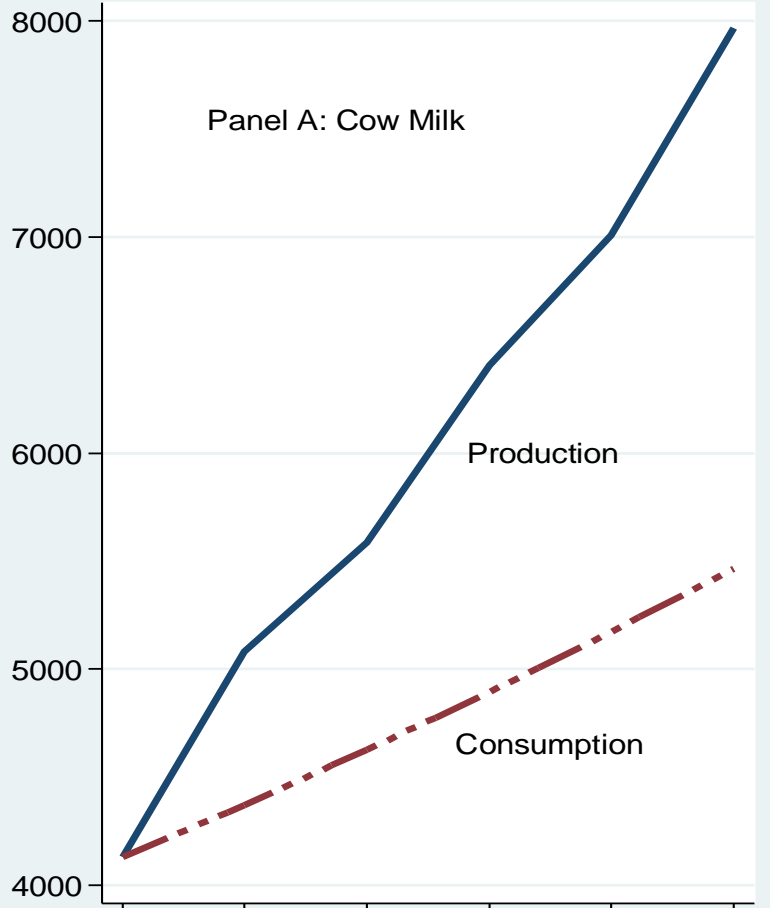


# Positive production-consumption balances projected for GTP II (2015-2020) for red meat, chicken meat, and all meat (thousand tons), with LMP interventions

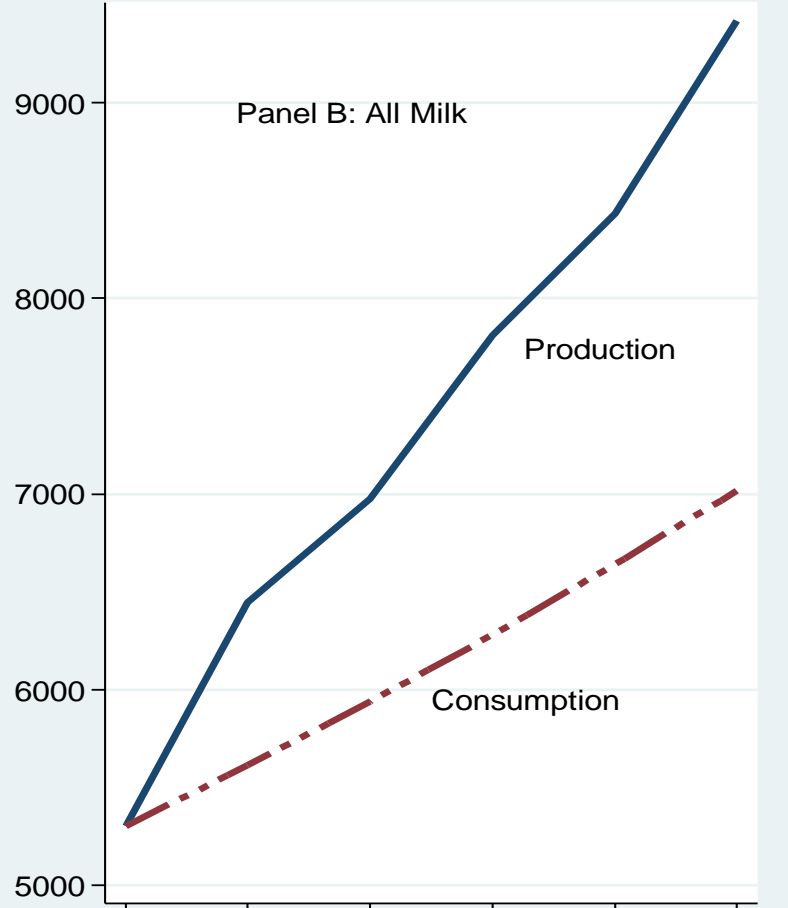


Source: Based on LSA results.

# Positive projected production-consumption balances for cow milk and all milk (million liters), (2015-2020) with LMP interventions

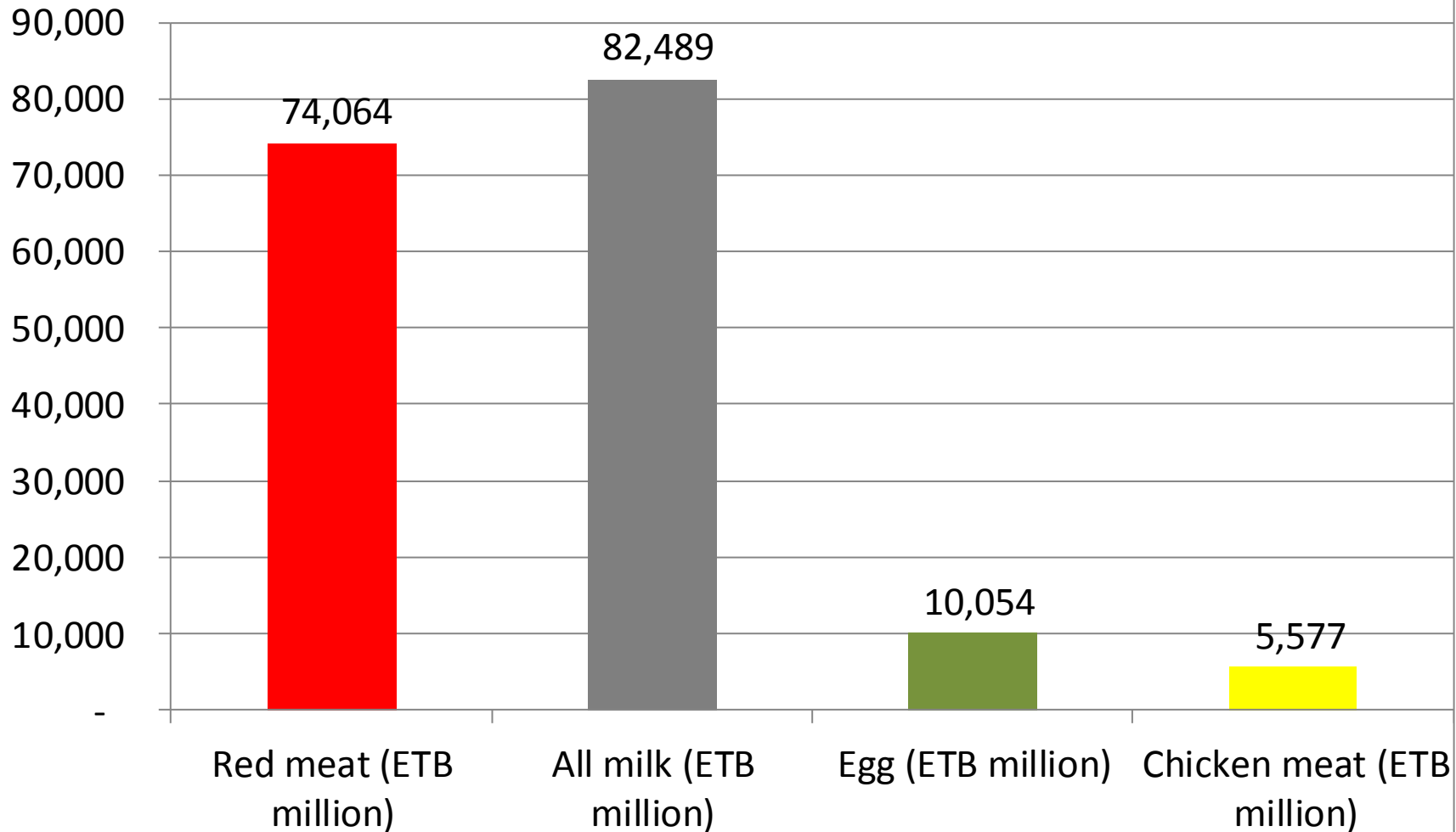


Source: Based on LSA results.

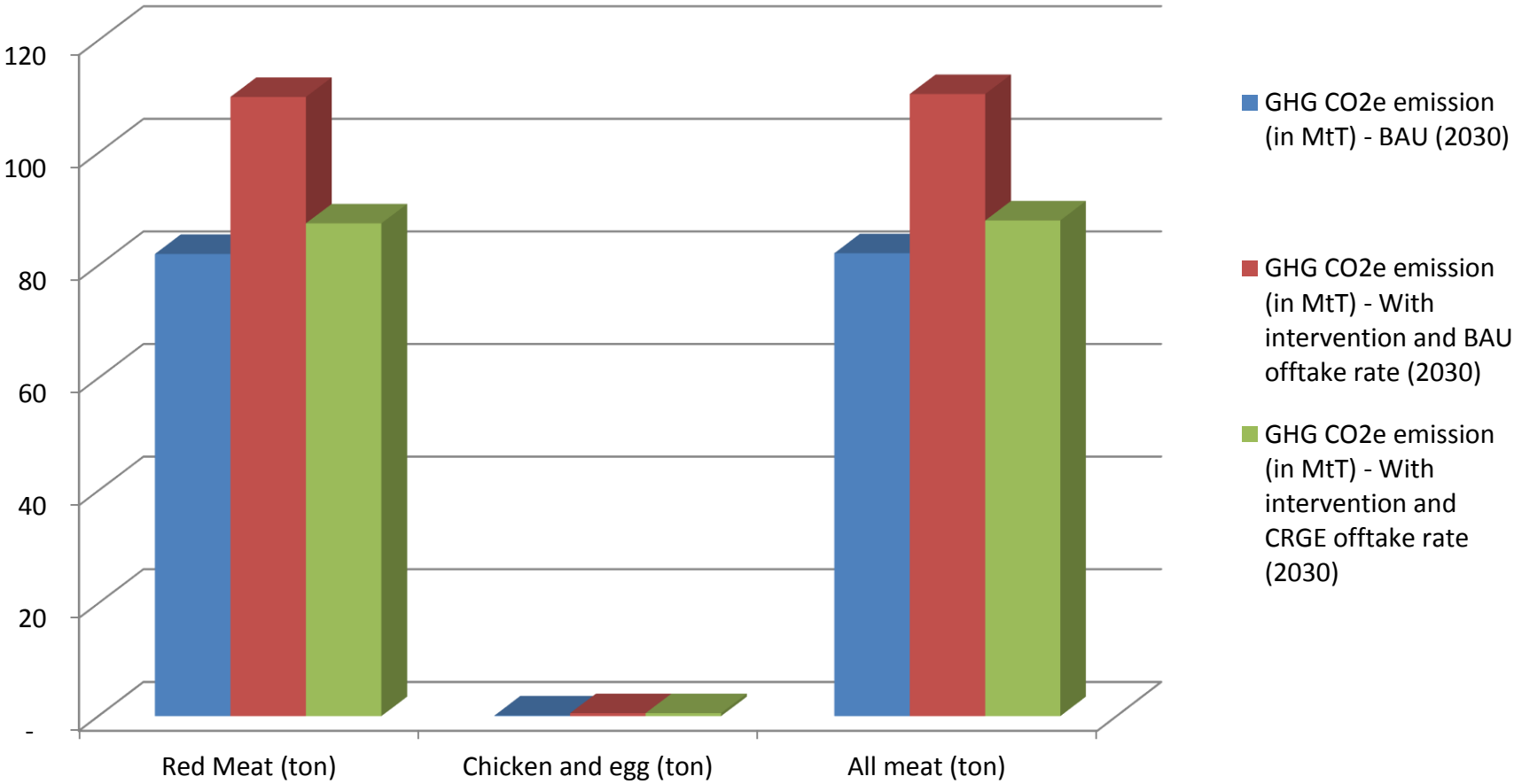


Source: Based on LSA results.

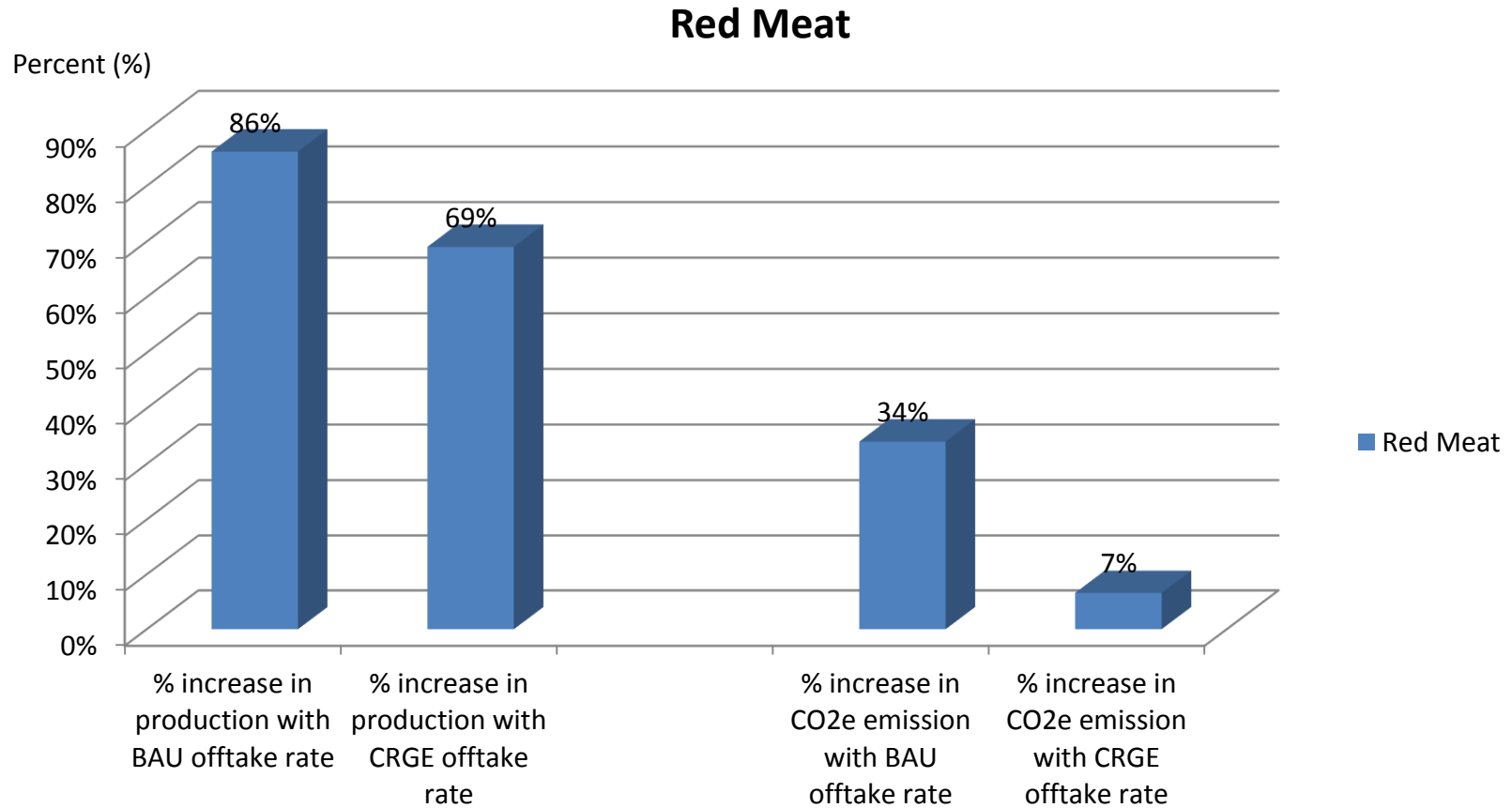
# GDP contribution from LMP interventions for milk, red meat, and chicken meat and eggs



# GHG (CO<sub>2</sub>e ) emissions from BAU (without intervention) and with interventions with LMP and CRGE offtake rates (in Mt ton)



# Percentage increase in Red Meat production and CO<sub>2</sub>e emissions from interventions with “business as usual” (BAU or LMP) and CRGE offtake rates (%)



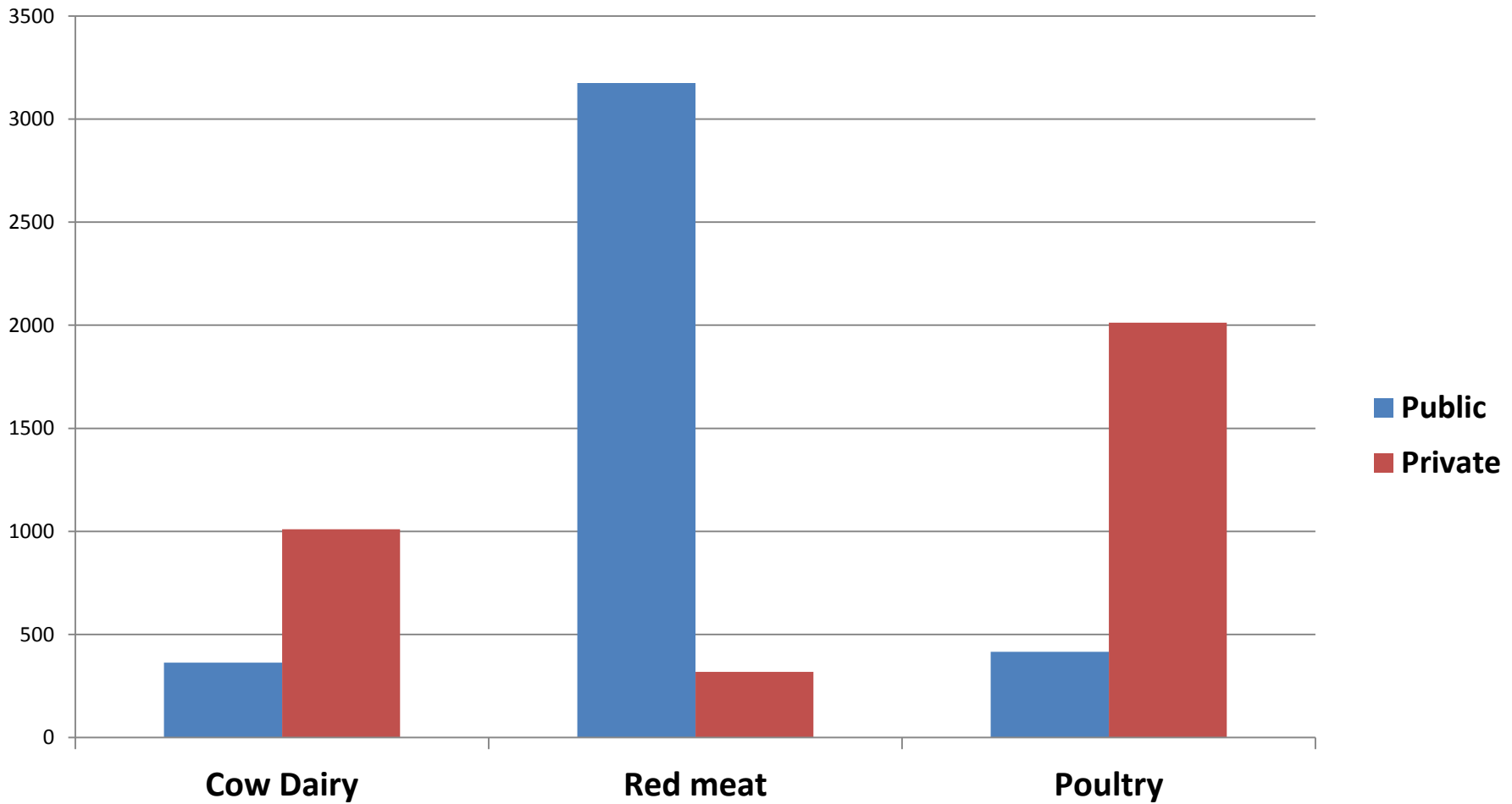


# What do LMP results mean for the Ethiopia 5-year development plan - GTP II

## **Livestock development efforts for GTP II need to:**

- **Invest in all LMP interventions to eliminate poverty in 18% of livestock keeping households (>11 million people)**
- **Focus on poultry development** to achieve better food security, enable red meat exports, and lower GHG emissions
- **Combination of cattle and poultry to improve food security** – lower domestic meat prices to increase exports and foreign exchange earnings
- **Focus on dairy development** to achieve dairy product food security in domestic markets and also increase export earnings

# Comparison of Public and Private investment shares by Major Value Chain (ETB Millions)



# Minister of Ag Reaction to LMP

- The Agriculture Minister said “GOE will adopt and implement the LMP” thru the GTP II (5-year development plan)
- Livestock State Ministry now owns the LSA, GTP II and LMP
- Livestock State Ministry used the LMP to set targets for the GTP II (2015-2020) and it is the livestock sector implementation plan for the GTP II
- Ministry of Livestock & Fisheries now created and the Livestock Sectors are based on the commodity value chains recommended in the LMP for investment
- MLF is setting up its own policy & planning unit and is committed to expand the use of the LSA/LMP tools in planning, policy analysis and research

# The Core LMP Team – MALF, ILRI staff (& BMGF) **THANK YOU!**

