

Investing in Sustainable Livestock:



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Main Goal:

Dual objectives of livestock investment projects: environment and livestock development

- effective, innovative, stakeholder supported
- greenhouse gas emissions and pollution



Investing in Sustainable Livestock:
Policy Note



Main Goal:

explore the policy issues of addressing the dual demand for animal source foods and climate change mitigation

Who's it for:

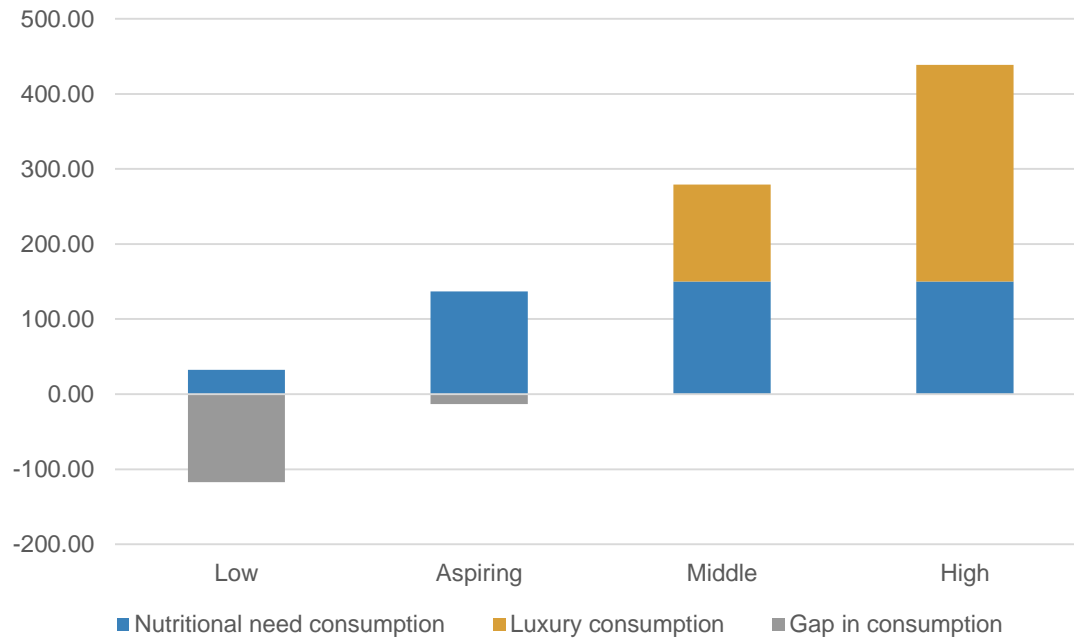
decision makers in the public sector, and others that are involved with policy



6 Sections

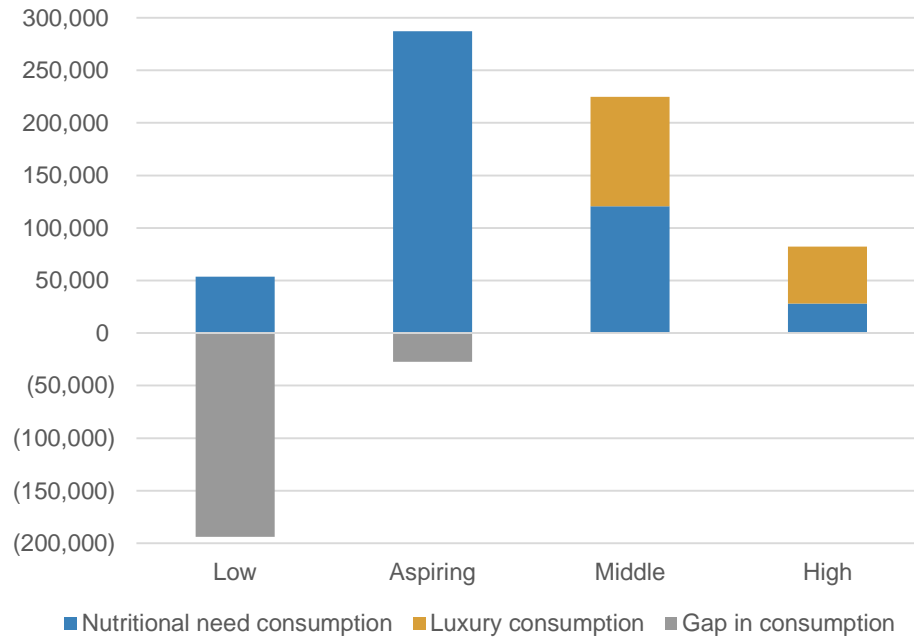
0. Introduction
1. Dual Demand
2. Possible Options (Supply and Demand Side)
3. Working backward from a Sustainable Livestock Future- Scenario Analysis
4. Working Towards a Sustainable Livestock Future- Case Studies
5. The Way Forward

Guatemala – milk consumption in g/capita/day





Guatemala – milk consumption in ton/year





Possible Options

Objective: A review of evidence, possible supply and demand side options in terms of technology and practices, policies, dietary choices, and other interventions

Supply Side

emission intensity, yield gaps, linkages with other sectors/opportunities (crop, forestry, energy, industry), soil carbon sequestration, food waste

Demand Side

decreasing consumption, consumption behavior, protein substitution (animal protein with lower GHG Ei, or other), food waste

The following is a potential framework for this section (and we could use thoughts/feedback)

Five Types of Policy Instruments

Financial

Either by making emissions costly or mitigation profitable, financial instruments can motivate the livestock industry to search for and develop less emission-intensive practices and technologies

Ex. Incentives, taxes, services

Market

Either improving access to markets and encouraging market flow, or including instruments that cause market friction. Using regulations to motivate the livestock sector to find better, more environmentally friendly practices and approaches

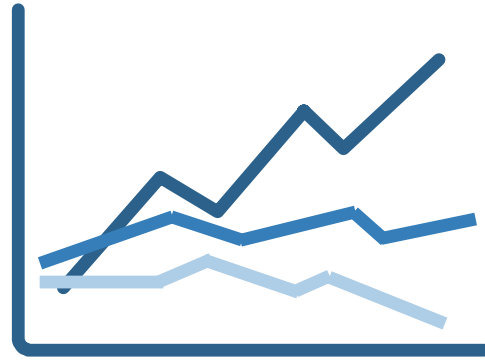
Advocacy

Promoting of policy development through education of the public, or traditional policy advocacy that influences other decision makers with the goal of raising awareness.

Enhance Enabling Conditions

Conditions considered as background of policy making but can be critical in ensuring policies are successful. For example, infrastructure development, creation or strengthening the capacity of institutions.

Scenario Analysis



Simple calculation and analysis of tradeoffs/synergies of different supply and demand side intervention strategies through a set of scenarios, designed to define the solution space

A discussion on the feasibility of limiting absolute livestock emissions, and the need for context when applying solutions on the ground

Livestock Emissions Reduction Target

Based off the UNEP's Emissions Gap Report, >66% probability to limit warming below 2°C with limited action until 2020 and cost optimal mitigation afterwards.

Year	Global Gt CO2 eq/yr- Target	Livestock Gt CO2 eq/yr- Target
2005	49	7.1
2010		
2020	52	7.5
2025	48	7.0
2030	42	6.1
2050	23	3.3

*Assuming livestock's share of annual contribution to global GHG emissions equals the share of reduction- which remains 14.5%



Business As Usual

A business as usual emissions scenario, along side a basic calculation on what is needed to get emissions down to the target level (in Gt CO₂ eq-)

	Emissions Target	Business As Usual	Meeting Target	Action required
2030	6.1	13.8	6.9	<i>E_i or production reduced by 50%</i>
2050	3.3	16.3	3.3	<i>E_i or production reduced by 80%</i>



Investing in Sustainable Livestock:

The Field Guide “Investing in Sustainable Livestock”



Main Goal:

- 1) to present 7 principles which (if applicable) results in environmental benefits and
- 2) illustrate these by context specific examples



Target group

individuals and teams working on project design, implementation and supervision.

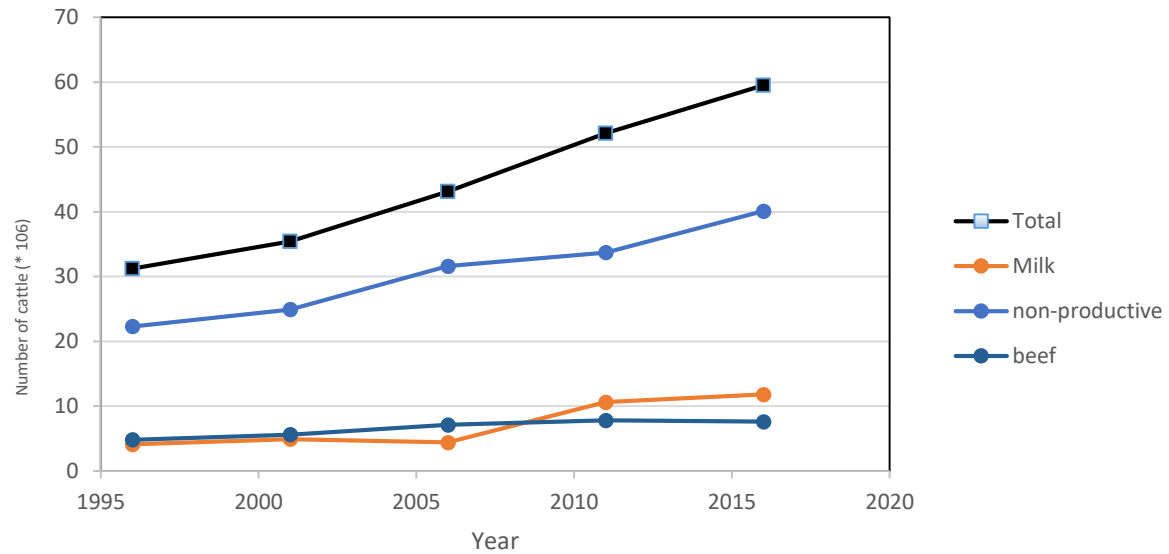


5 Sections

0. Introduction
1. The principles
2. Farming systems and agro-ecological conditions
3. Context specific examples
4. Indicators
5. Checklist and decision tree



Mixed crop livestock systems: Ethiopia and Bangladesh





Principle 1 Carbon sequestration

- Wood lands < 1%; Communal pastures < 10%.
- Grass is best cattle feed
- Preserve what is there; leguminous fodder trees on homesteads



Principle 2 fossil energy use

- With increasing production, energy requirements will increase.
- Renewable energy sources



Principle 3 livestock land coupling

- Is strong.
- Pollution can be in issue in peri-urban production
- Forage-manure coupling



Principle 4 productivity increase

- Productivity extremely low due to low quality of feed
- Constraints: feed-food competition and lack of feed value chain



Principle 5 Minimize national herd

- Non-productive herd comprises 40000000 (40 million!) head of cattle
- Consuming scarce feeds and emitting methane
- Needed for work, manure, banking and insurance



Principle 6 stimulate food consumption with low emission intensity

- Poultry meat and eggs
- Plant source foods

- Constraints: policy instruments; staple foods first need



Principle 7 Enabling environment

Dual objectives only possible with institutional support

- Land policy
 - Energy policy
 - Crop production development
 - Feed value chain
 - Mechanisation, financial system, fertilizers
 - Policy for poor smallholders
 - Food policy
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- Health (human and animal)
 - Animal genetic resources

