

Figure 1. Farm level disease burden on cattle by regional states (left) and per Kg of livestock biomass (right) in Ethiopia (B= billion)

The challenge

- There is paucity of quantitative information about economic burden of livestock diseases on society
- The Global Burden of Animal Diseases (GBADs) program - Ethiopia case study project estimated the overall farm level and economy wide burden of livestock diseases and attributed the burden to specific diseases
- The project estimated farm level economic burden for cattle, small ruminants and chicken diseases in Ethiopia

Our innovative approach

- The GBADs Animal Health Loss Envelope (AHLE) framework was used to estimate and attribute farm level economic burden of livestock diseases
 - It is a novel approach comparing a livestock enterprise budget with the current state of animal health to a hypothetical ideal state of animal health – the difference being the AHLE
- Government partners were trained and mentored in Animal Health Economics to build capacity in decision making using economic evidence



Economic Burden of Livestock Diseases

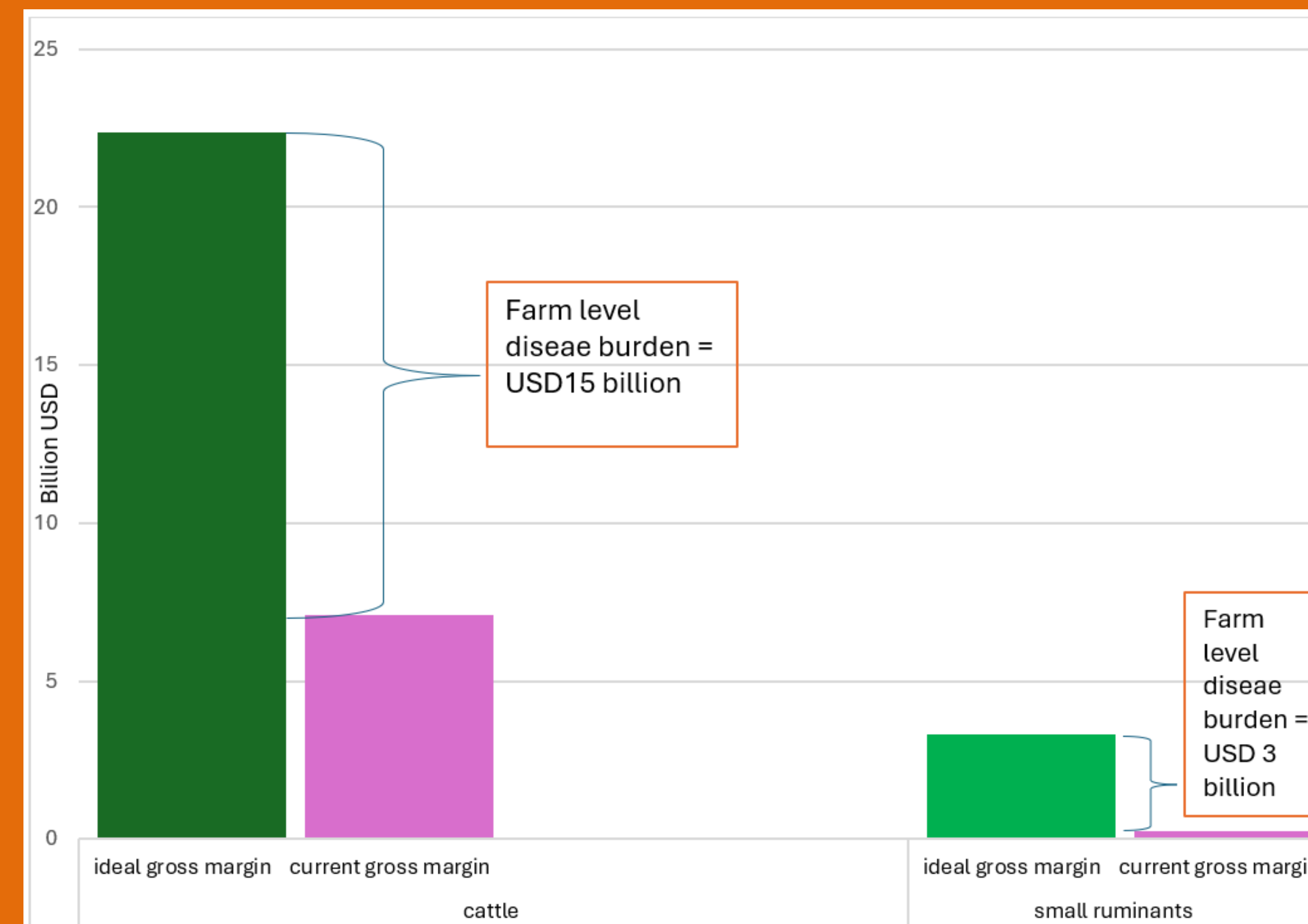


Figure 2. Annual AHLE (farm level disease burden) in cattle and small ruminants in Ethiopia



Figure 3. Attribution of Ethiopian small ruminant burden (AHLE) to PPR & Brucellosis



Figure 4. Capacity building of government partners in Animal Health Economics

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Outcomes

- More of half of the value of livestock production is lost due to poor health
- Estimates are used by the national government, e.g. The peste des petits ruminants (PPR) burden estimate is used to support PPR control programme status
- The disease burden and related analytical approaches are used for teaching in Addis Ababa university
- The Ministry of Agriculture established an Animal Health Economics core group to produce and make use of Animal Health Economics in decision making

Next steps

- Attributing the all causes disease economic burden to more specific diseases
- Analyzing the impact of the farm level disease economic burden to the wider economy
- The disease burden estimation can be further used for cost benefit analysis disease control interventions
- The disease burden estimates could also be used for analysis of other livestock issues such as greenhouse gas emissions, nutritional loss and antimicrobial use/resistance.

Partners



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