

# The impact of management practices on pre-mortem meat quality along the Colombian cattle value chain

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## Introduction

- Cattle production is the most important activity in Colombian rural areas contributing strongly to the economic and social welfare of the population.
- Colombian cattle value chains are often not well articulated at all stages leading to uncoordinated activities and inefficiency.
- The absence of adequate infrastructure (e.g. roads) and the use of extensive production systems have a negative impact on product quality and food safety.
- These factors, among others, limit the stakeholders' capacity to achieve substantial increases in competitiveness and sustainability leading to low levels of compliance with current environmental, animal welfare or food safety regulations.
- This results in limited access to more formal national and international markets and in final products of low quality and food safety that might put consumers' health at risk.

## Objective

Identify critical points in terms of pre-mortem management practices and assessing the levels of compliance with national norms among the cattle value chain stakeholders at pre-mortem stages (primary production, animal transport and animal trading).

## Methodology

The study was carried out in 2016 and 2017 following a three-stage process:

- ☑ — **3.1 Checklist:** Based on the Resolution 20148 (2016) issued by the Colombian Agriculture and Livestock Institute (ICA), a checklist was developed and applied with small and medium scale cattle producers, to assess the level of compliance with the norm.



- ☑ — **3.2 Interviews with cattle producers, transporters and traders:** The different animal marketing channels were identified and the transporting and trading practices were evaluated regarding their compliance with national regulations.



- ☑ — **3.3 Evaluation and comparison with literature:** A profound literature review was conducted in order to identify the magnitude of negative impacts of different management practices on meat quality and to develop strategies for improvement.

## Results

### 4.1 Main commercialization route from animal production to slaughter

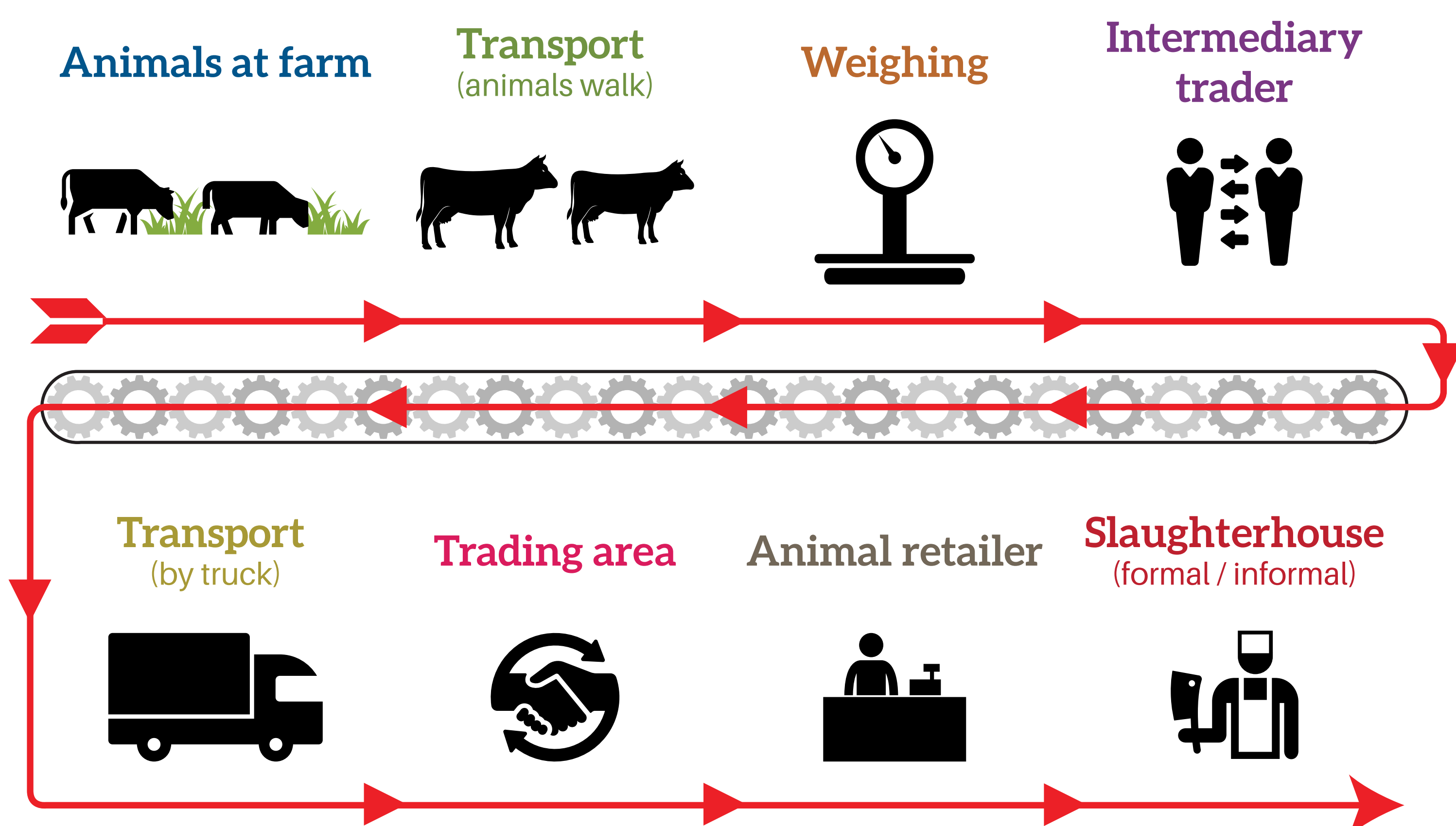


Figure 1. Commercialization from farm to slaughter

### 4.2 Compliance with the resolution (producers)

Both types of value chain actors rejected the application of the checklist. However, we were able to document the process through observation and personal interviews.

- Lack of proper conditions during animal transport and trading: overcrowding, no physical separation, inadequate spaces, no cleaning and disinfection of the vehicle and trading installations.
- No awareness of the influence of stress on product quality.
- Poor secondary and tertiary access roads make it difficult for the transporters to reduce transport duration and increase animal welfare.
- Falsification of legal documents for animal transport is an issue.

## References

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This work was done as part of the CGIAR Research Program on Livestock.

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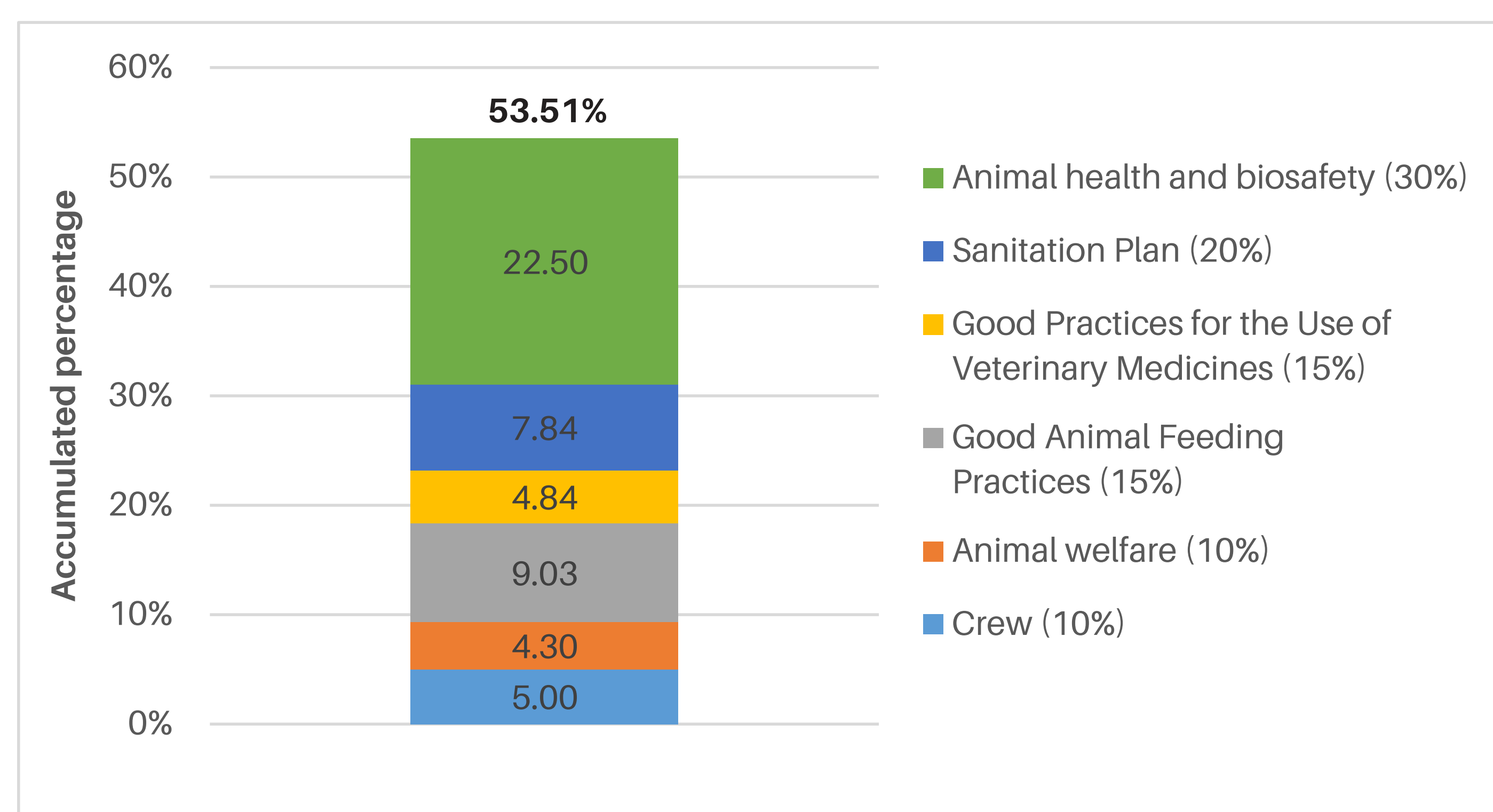


Figure 2. Compliance with different items of Resolution 20148 (2016).



Picture 1. Pre-mortem process: a) At farm. b) Before transport. c) Weighing. d) Transport by truck.

## Conclusions

- The study helped to visualize and analyze the gaps in pre-mortem cattle management, i.e. with regard to current national norms in Colombia.
- Results show that awareness of and compliance with the norms is low at all three pre-mortem value chain stages (animal production, transport and trade).
- The involved actors show little awareness of the physical needs of the animals and of the impact management practices have on the final product quality.
- The study will be of high value for the involved value chain actors and decision makers in order to develop adequate pre-mortem management practices and control mechanisms that help to enhance value chain development and in achieving access to more formal national and international markets.

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