



RESEARCH BRIEF SUSTAINABILITY

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Livestock: On Our Plates or Eating at Our Table? A New Analysis of The Feed/Food Debate

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Abstract

Livestock contribute to food security by supplying essential macro- and micro-nutrients, providing manure and draught power, and generating income. But they also consume food edible by humans and graze on pastures that could be used for crop production. Livestock, especially ruminants, are often seen as poor converters of feed into food products. This paper analyses global livestock feed rations and feed conversion ratios, with specific insight on the diversity in production systems and feed materials. Results estimate that livestock consume 6 billion tonnes of feed (dry matter) annually – including one third of global cereal production – of which 86% is made of materials that are currently not eaten by humans. In addition, soybean cakes, which production can be considered as main driver or land-use, represent 4% of the global livestock feed intake. Producing 1 kg of boneless meat requires an average of 2.8 kg human-edible feed in ruminant systems and 3.2 kg in monogastric systems. While livestock is estimated to use 2.5 billion ha of land, modest improvements in feed use efficiency can reduce further expansion.

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