

## Participatory approaches for sustainable livestock production

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Livestock systems play a crucial role in meeting global demand for animal products but are increasingly criticised for their negative environmental and societal impacts. Future livestock production systems must maximize positive contributions while mitigating adverse effects. Participatory approaches, which actively engage stakeholders in decision-making and give the affected parties a voice, offer a means to align livestock systems with local needs and to enhance sustainability. This study explores the characteristics and benefits of participatory approaches used to enhance the sustainability of livestock production. The study utilises examples from the EU-funded project PATHWAYS ([www.pathways-project.com](http://www.pathways-project.com); GA 101000395). The research employs both quantitative (surveys) and qualitative methods (focus groups, farm networks and Living Labs). Surveys were conducted to assess the opinions of relevant stakeholders on ecosystem services. They were preceded by stakeholder analyses to identify those that are involved in or are affected by decisions. Focus groups were used to gather in-depth insights from international actors from the Multi-Actor Platform of PATHWAYS, including discussions on visions for sustainable livestock production in 2050. Farm networks were established to facilitate the exchange of knowledge around a certain theme of innovation. The project PATHWAYS works with farm networks in 15 Practice Hubs focusing on innovative practices related to sustainable livestock production (dairy, beef, pork, poultry, sheep and goat). Complementing these Practice Hubs, 15 Living Labs were established to test practical improvements in on- or off-farm farmer-initiated trials. Findings indicate that participatory approaches enhance collaboration, stakeholder ownership and informed decision-making in the livestock production sector. By integrating diverse perspectives, these methods contribute to more sustainable livestock systems that better align with stakeholder needs and capabilities.