Breaking down the Livestock-Nutrition Pathway

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Contents and key messages

Pathways essential for understanding (and attaining?) nutrition impact

Many pathway models (only one for ASF): all are wrong, all are useful

Preferred pathway approach is context specific

What’s new?
Livestock keeping and the poor

A common feature of resource-poor households

- 2/3 of resource-poor rural households keep livestock

Multiple roles

- Producing food
- Generating income
- Providing manure
- Producing power
- Financial instruments
- Enhancing social status
The linkage from livestock keeping to human health & nutrition

The presumed logic

A
Livestock keeping

creates

B
Animal-source food

improves

C
Health & Nutritional Well-being
The presumed logic

And hence...

A Livestock keeping

creates

improves

QED!

B Animal-source food

improves

C Health & Nutritional Well-being

The linkage from livestock keeping to human health & nutrition
The evidence

Major reviews on agriculture and nutrition (including livestock) found no overall evidence for nutritional outcomes (Carletto et al., 2015; Webb and Kennedy, 2014; Ruel and Alderman, 2013; Masset et al., 2011; Webb Girard et al., 2012)

More recent papers show emerging evidence but ambiguous and dogged by poor design
The linkage from livestock keeping to human health & nutrition

The Reality: Subsistence Pathway

A
Livestock keeping

creates

B
Animal-source food

Subsistence Link

①

improves

C
Health & Nutritional Well-being
The linkage from livestock keeping to human health & nutrition

The Reality: Market Linkages

A
Livestock keeping

B
Animal-source food & other products

Improves
creates

C
Health & Nutritional Well-being

Market sales & purchases

② Market Path
The linkage from livestock keeping to human health & nutrition

Exposure to Zoonoses & Food-borne Disease

A
Livestock keeping

B
Animal-source food & other products

C
Health & Nutritional Well-being

Pathway:
- Livestock keeping creates animal-source food & other products.
- Market sales & purchases improve.
- Disease threatens health & nutritional well-being.
The linkage from livestock keeping to human health & nutrition

Numerous Indirect Linkages

Indirect Effects (crops, labour, care)

Livestock keeping

creates

Animal-source food

improves

Market sales & purchases

threatens

Health & Nutritional Well-being

(+ or -) ??
The linkage from livestock keeping to human health & nutrition

Mapping the Linkages

Arrows between variables indicate hypothesized causal relationships. The + or - signs indicate hypothesized direction of effects.
The linkage from livestock keeping to human health & nutrition

Mapping the Linkages

Arrows between variables indicate hypothesized causal relationships. The + or - signs indicate hypothesized direction of effects.
Where the pathways lead

No silver bullet pathway – highly context specific

Still limited and ambiguous evidence for most pathways (Herforth & Ballard, 2016)

Need to pick nutritional winners

Greater emphasis on market-based approach
What’s new?

Missing links
  Microbiome/aflatoxins/sanitation/food safety
  Time/food environment

New purposes for pathways
  Intervention pathways
  Pathways generating testable hypotheses

Pathways for other FSN issues
  Food safety
4. Van Dorp M., Oenema S., Verdonk I. 2011, Centre for Development Innovation, Wageningen University; Netherlands.
5. Gillespie, S., Harris, J., Kadiyala, S., 2012. The Agriculture-Nutrition Disconnect in India, What Do We Know? IFPRI
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