One health, many healths

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Joint appointed scientist, ILRI

Global Agenda for Sustainable Livestock
12th MSP Meeting
6th October 2022, Castleknock, Ireland

Moderators
• Thomas Fitz Randolph ILRI & NRI
• Elizabeth Cook (ILRI)
• Peter Ballantyne (ILRI)
• Victor Michael (ILRI)

ILRI One Health Initiatives
• Bernard Bett – OHRECA – ILRI
• Hung Nguyen – One Health Initiative - ILRI
• Kristina Roesel – BUILD – ILRI
• Theo Knight-Jones – COHESA - ILRI
Preventing the next pandemic

Seven major anthropogenic drivers of zoonotic disease emergence
1. Increasing demand for animal protein
2. Unsustainable agricultural intensification
3. Increased use and exploitation of wildlife
4. Unsustainable utilization of natural resources
5. Travel and transportation
6. Changes in food supply chains
7. Climate change

One Health is an integrated, unifying approach that aims to sustainably balance and optimize the health of people, animals and ecosystems (OHHLLEP, 2022)
One Health
EcoHealth

- Complexity/systems thinking
- Participation
- (Ecosystem) Sustainability
- Social and gender equity
- Knowledge to Action
- Transdisciplinarity

Ecohealth principles/patterns
One Health in Agriculture Systems

- Human health (mainly nutrition)
- Animal health
- Plant health
- Agro-Ecosystems
- Soil health

Food Safety
AMR
Zoonoses
Six principles of Ecohealth (Charron, 2012)

- Systems Thinking
- **Transdisciplinary Research**
- Participation
- Sustainability
- Gender and Social Equity
- Knowledge to Action

http://www.idrc.ca/EN/Resources/Publications/Pages/IDRCBookDetails.aspx?PublicationID=1051
Timely responses to reduce impacts

- Surveillance and response in animal hosts can reduce costs by 90%

Adapted from IOM 2009
Engagement for Health Management
Act in Ecosystems & Animal Populations to Improve Human Health

Potential points of disease interventions by mapping key drivers of disease spread
One Health is an integrated, unifying approach that aims to sustainably balance and optimize the health of people, animals and ecosystems (OHHLEP, 2022)