Climate Change, Trade, and Animal Health

STDF Event on Linkages Between Climate Change and SPS Issues

STDF Secretariat in Collaboration with OIE And FAO
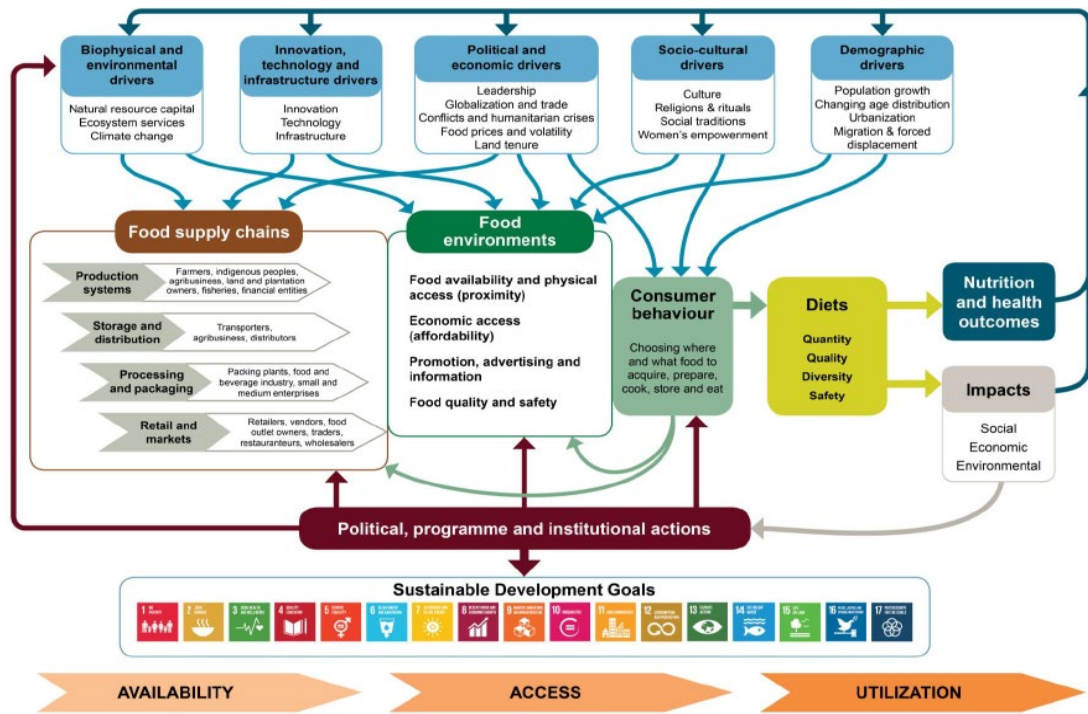
Climate Change and Animal Health

3 May 2022

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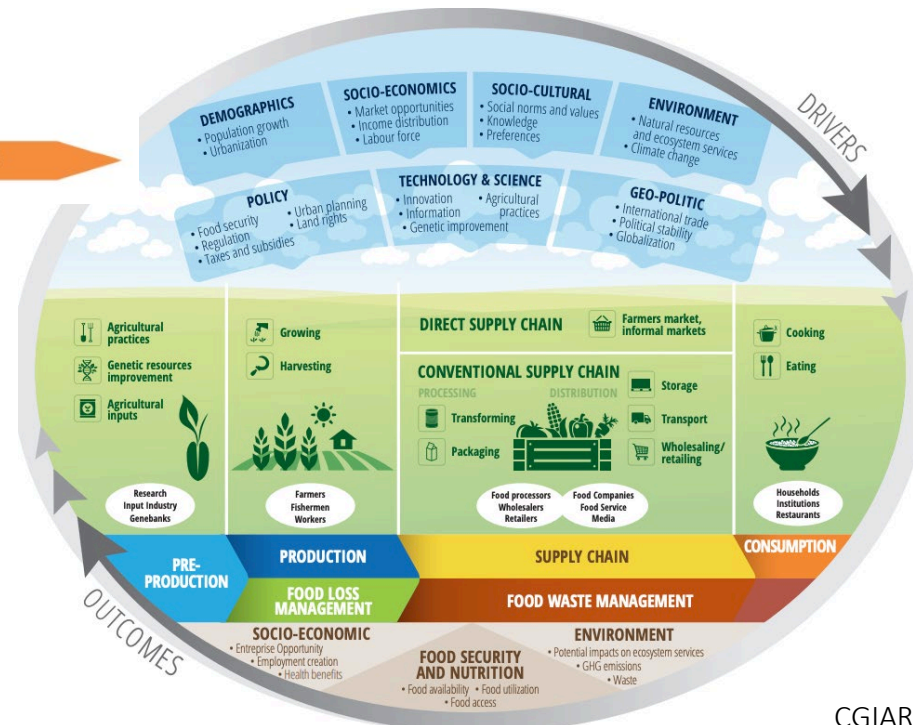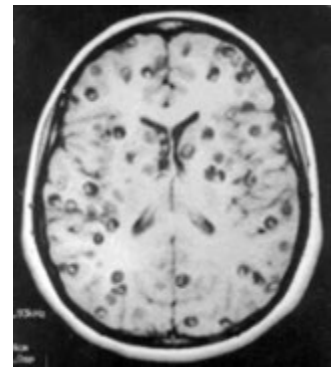
Food systems for health and nutrition

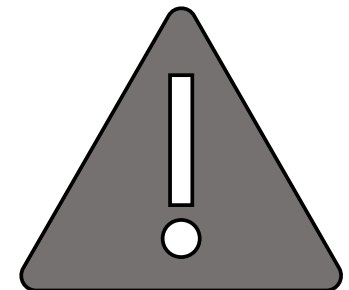HLPE 2017 Food Systems and Nutrition Report

Triple burden

CGIAR
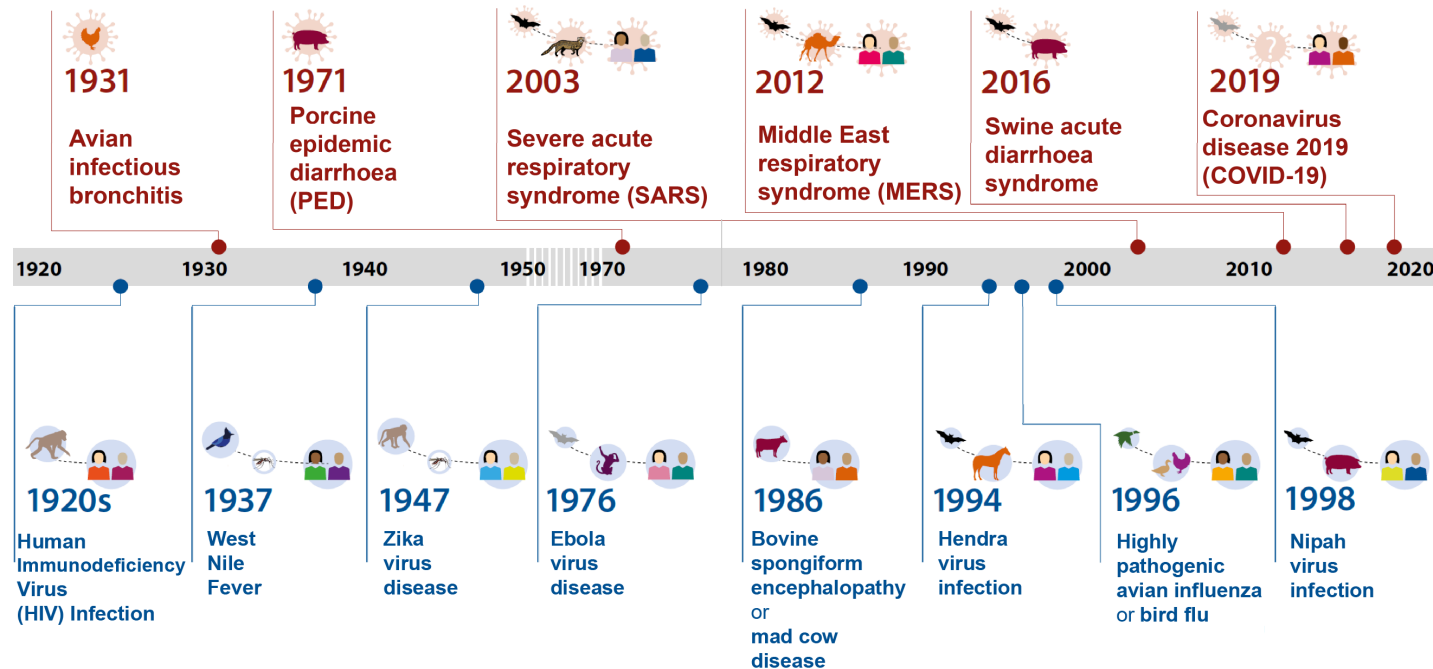
Zoonoses: neglected and emerging

- Neglected zoonoses: *brucellosis, bovine tuberculosis, leptospirosis, Rift Valley fever*

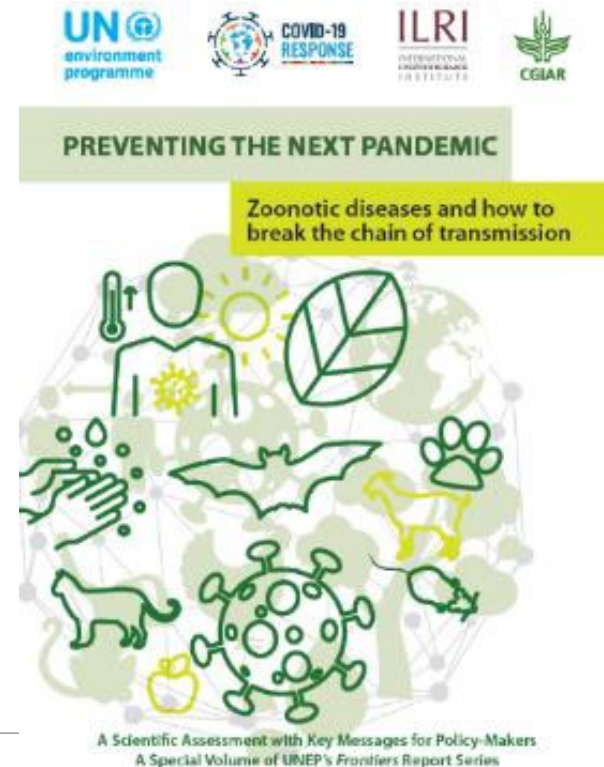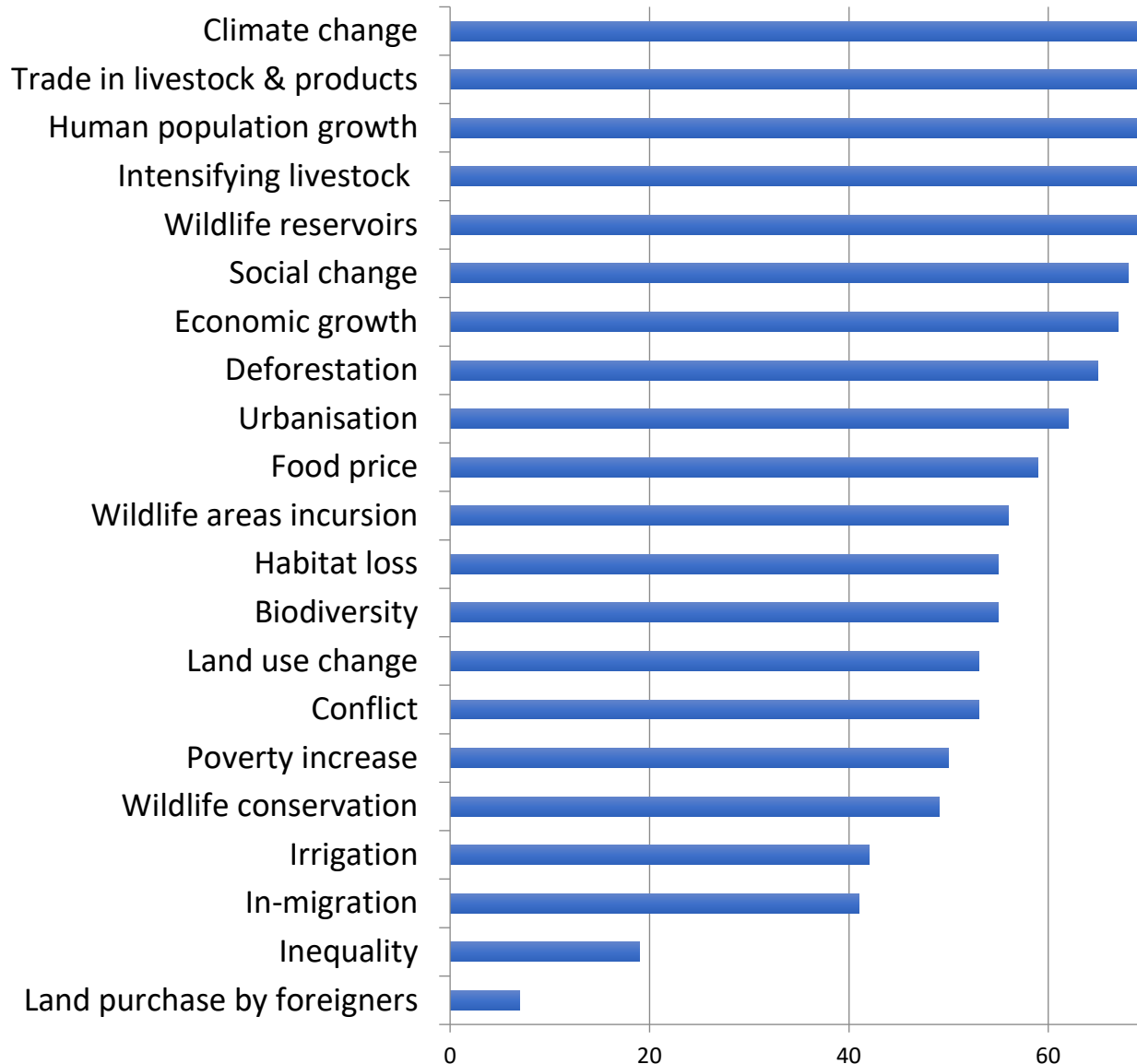- Emerging zoonoses: *mad cow, bird flu, SARS, MERS, COVID-19*

Warning! Increasing frequency of pandemics

Emergence of significant diseases caused by coronaviruses and other pathogens

1931 Avian infectious bronchitis

1971 Porcine epidemic diarrhoea (PED)

2003 Severe acute respiratory syndrome (SARS)

2012 Middle East respiratory syndrome (MERS)

2016 Swine acute diarrhoea syndrome

2019 Coronavirus disease 2019 (COVID-19)

1920 — 1930 — 1940 — 1950 — 1970 — 1980 — 1990 — 2000 — 2010 — 2020

1920s Human Immunodeficiency Virus (HIV) Infection

1937 West Nile Fever

1947 Zika virus disease

1976 Ebola virus disease

1986 Bovine spongiform encephalopathy or mad cow disease

1994 Hendra virus infection

1996 Highly pathogenic avian influenza or bird flu

1998 Nipah virus infection

Graphics: Annabel Slater, ILRI; adapted from United Nations Environment Programme and International Livestock Research Institute (2020). Preventing the Next Pandemic: Zoonotic diseases and how to break the chain of transmission. Nairobi, Kenya.

ILRI INTERNATIONAL LIVESTOCK RESEARCH INSTITUTE

CGIAR

These trends have important drivers

Chart: Drivers by relative importance
- Climate change
- Trade in livestock & products
- Human population growth
- Intensifying livestock
- Wildlife reservoirs
- Social change
- Economic growth
- Deforestation
- Urbanisation
- Food price
- Wildlife areas incursion
- Habitat loss
- Biodiversity
- Land use change
- Conflict
- Poverty increase
- Wildlife conservation
- Irrigation
- In-migration
- Inequality
- Land purchase by foreigners

(x-axis: 0, 20, 40, 60)

UN environment programme · COVID-19 RESPONSE · ILRI International Livestock Research Institute · CGIAR

PREVENTING THE NEXT PANDEMIC

Zoonotic diseases and how to break the chain of transmission

A Scientific Assessment with Key Messages for Policy-Makers
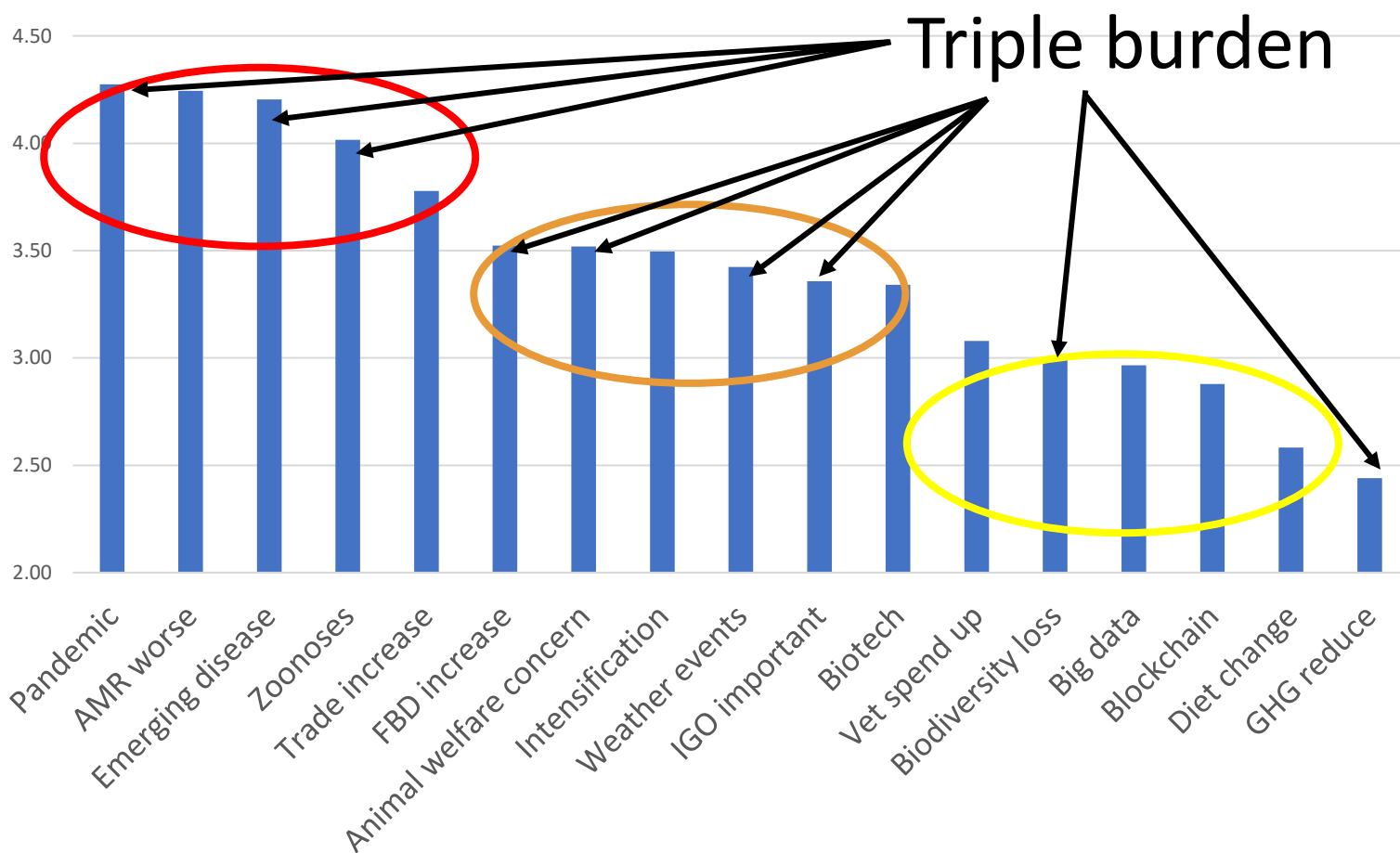A Special Volume of UNEP's Frontiers Report Series

External Factors Important For Vet Services

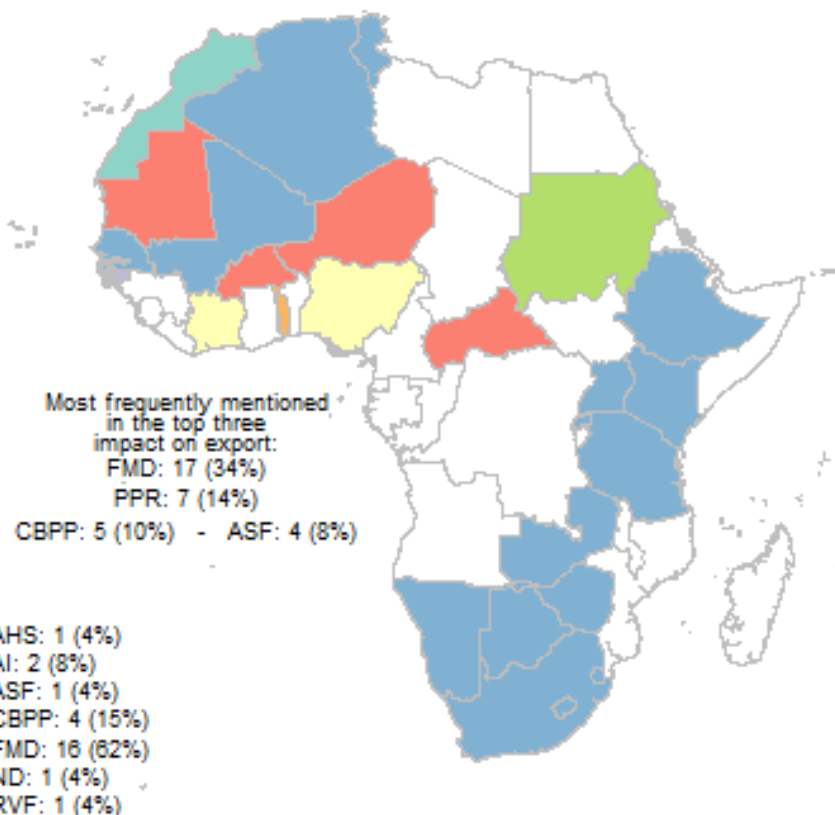Member Country perspective

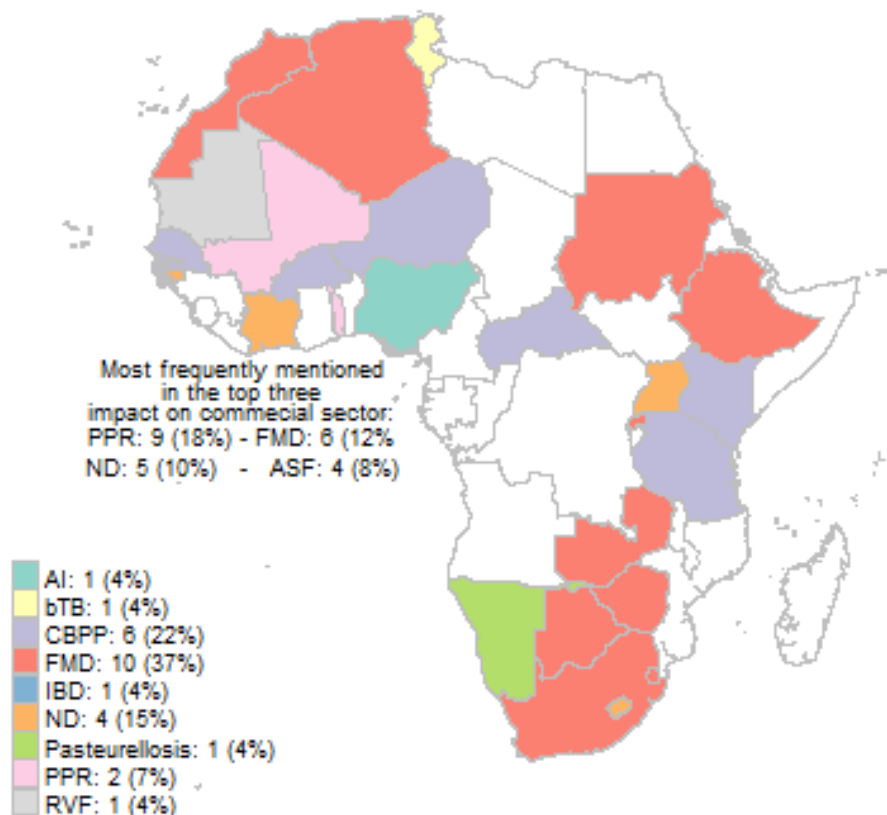*0 is no importance 5 is maximum importance*

AH impacts on trade

21st Conference of the OIE Regional commission for Africa,
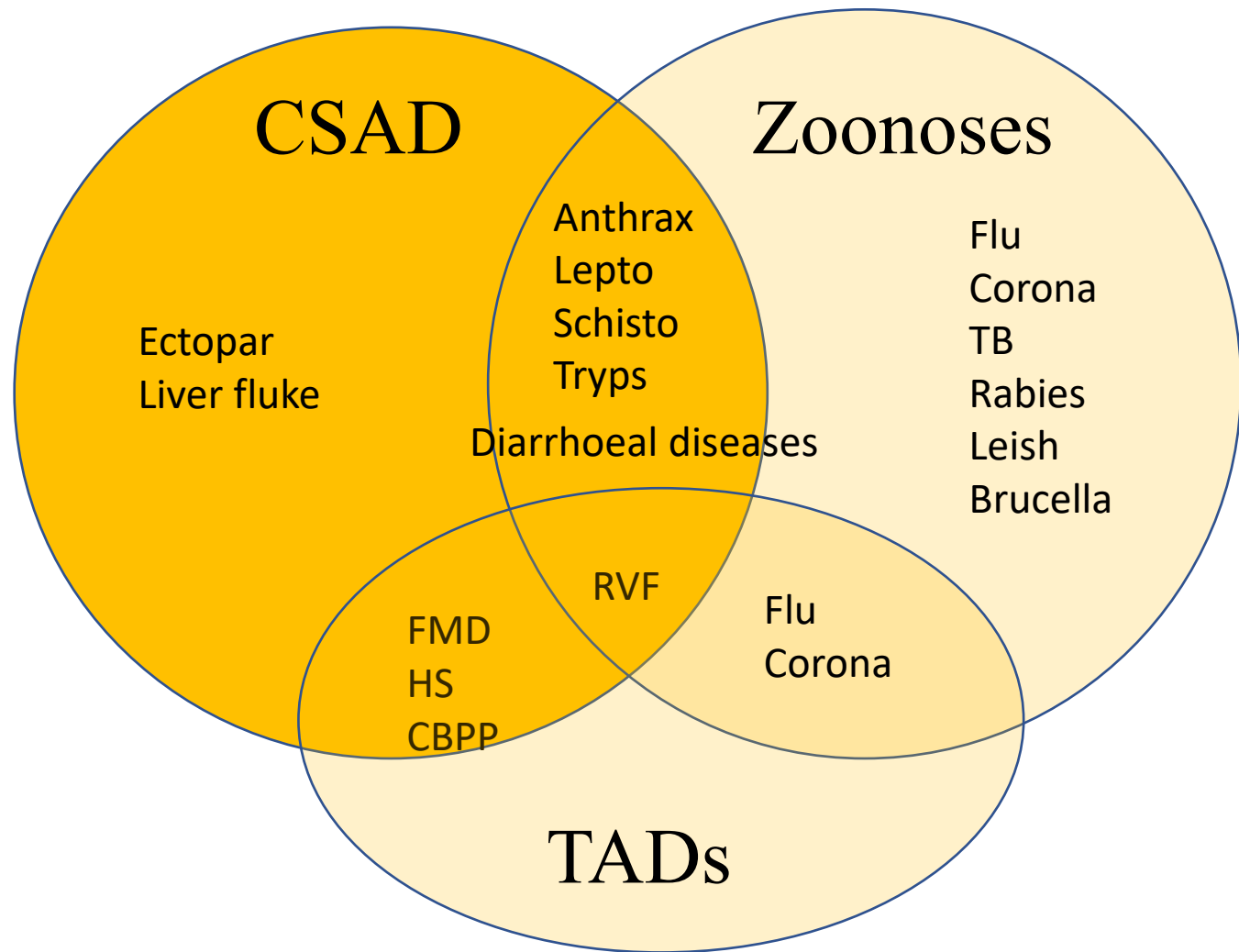16th-20th February, 2015, Rabat, Morocco

D Grace et al.

Trade, climate change and animal health

Triple burden

CSAD

Ectopar
Liver fluke

Anthrax
Lepto
Schisto
Tryps
Diarrhoeal diseases

Zoonoses

Flu
Corona
TB
Rabies
Leish
Brucella

RVF

FMD
HS
CBPP

Flu
Corona

TADs

Climate Sensitive Animal Disease – CCAFS/ILRI
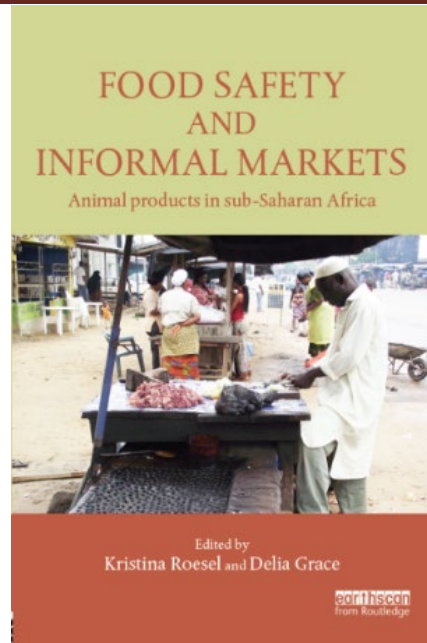Top zoonoses – ILRI
Transboundary animal diseases – EMPRES, FAO

Initiatives related to AH, CC, trade

- 2020 GBADs launched

- 2020 OHRECA launched: zoonoses, FBD, AMR

- 2020 AU SPS Policy Framework and Animal Health Strategy for Africa endorsed

- 2021 AfCFTA - 55 member states – enacted

- 2022 COHESA – 11 countries - launched

- 2022 Animal Health Systems Facilitating Trade within the African Union launched

Acknowledgements and Further Reading