



World Organisation  
for Animal Health



# Training Seminar for National Veterinary Products Focal Points

**Veterinary Products: A Vital Tool for Improving Animal Health and Welfare**

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Fund



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# Responsible and prudent use of anthelmintic chemicals to help control anthelmintic resistance in grazing livestock species



Vudriko Patrick (PhD)

WOAH Electronic expert working group on Antiparasticide (former)

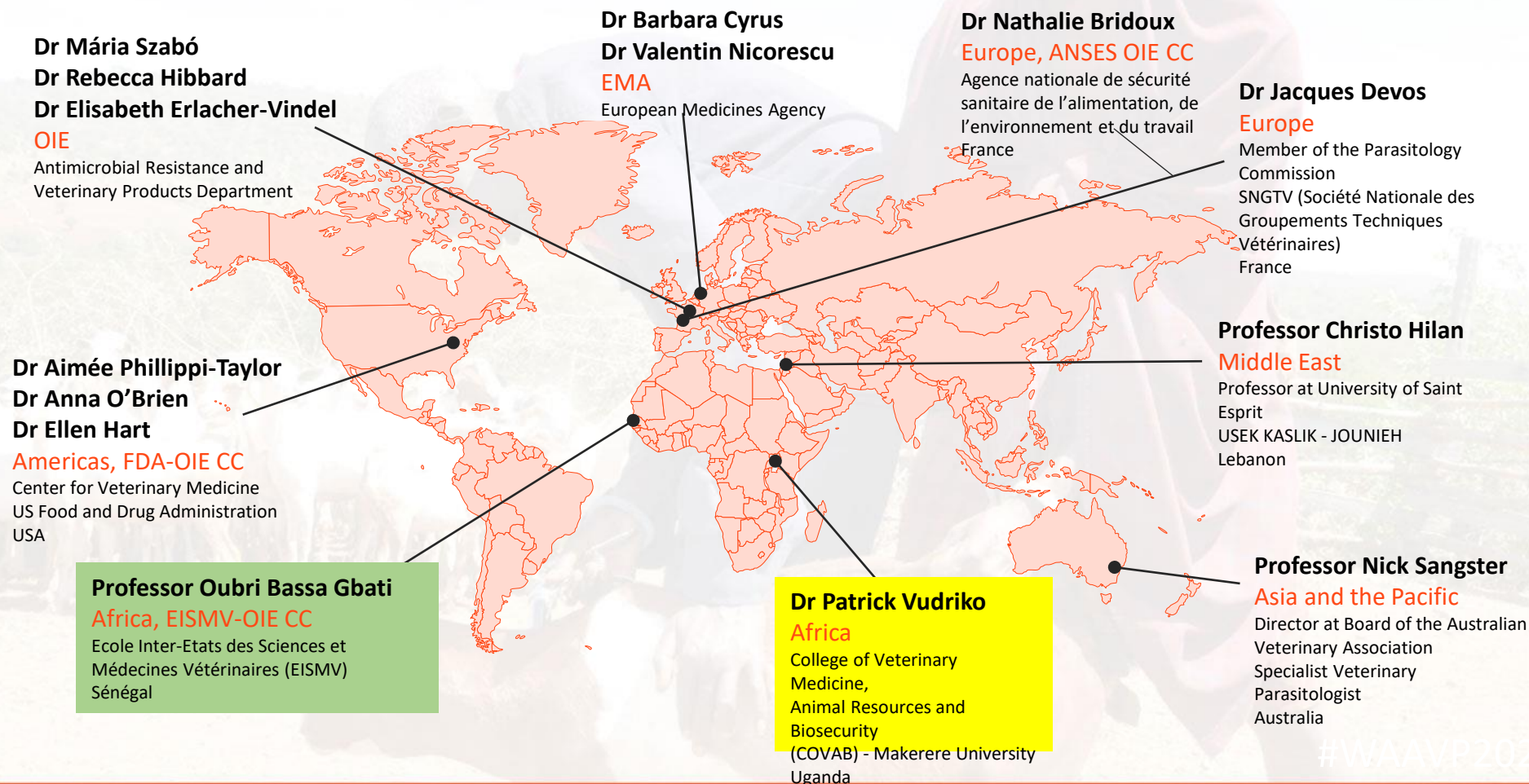
# Content

- The Background
- OIE/WOAH Survey
- The WOAH Publication on Responsible and prudent use of anthelmintics
  - Aim
  - Key aspects of the publication
- Why you need to take action
- Take home

# Background

- Helminths are one of the leading causes of livestock production losses in the world
- Anthelmintic resistance (AR) is a global threat
- AR affects animal health, welfare & livestock production
- Lack of OIE/WOAH guideline on strategies for prevention and control of AR
- OIE first addressed this subject in the 4th and 5th cycles of its Training Seminars for the National Focal Points for Veterinary Products
- As a follow-up action, **WOAH Electronic Expert Group on Antiparasitic Resistance** was formed in 2019

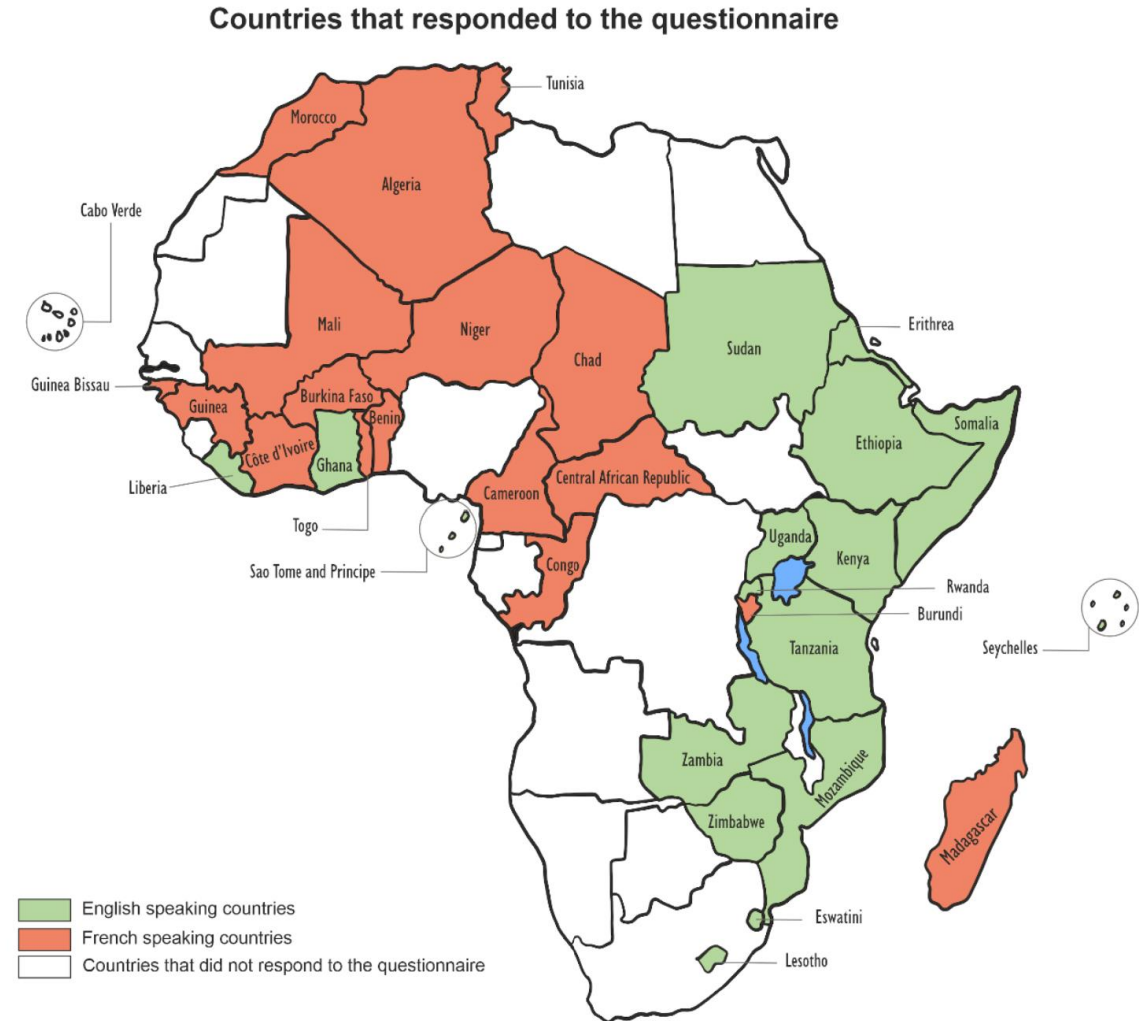
## WOAH Electronic Expert Group (EEG) on Antiparasitic Resistance



# Survey on antiparasitic agents and resistance in terrestrial and aquatic animals'



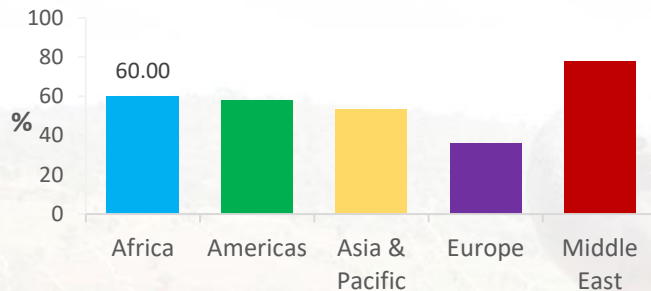
- As part of the ToR of the EEG, a survey was conducted across globe
- In Africa, English and French speaking countries participated (April 2020)
- Survey tools were dispatched through OIE/WOAH regional & Sub-regional offices
- Response were obtained through OIE delegates & Focal points
- Data was analyzed & Survey result for Africa was published in OIE/WOAH Bulletin (Sept 2020)
- <https://bulletin.woah.org/wp-content/uploads/2020/09/OIE-News-September-2020-results-of-the-survey-on-antiparasitic-agents-and-resistance-in-terrestrial-and-aquatic-animals-in-the-Africa-region.pdf>
- Similar surveys were done for Middle East, Europe & Americas





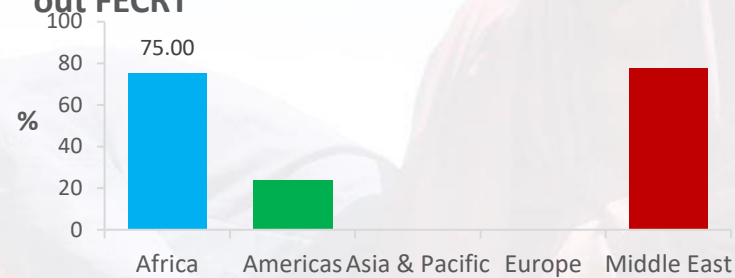
# Key Survey Results: Africa in the global context

## A Anthelmintic Resistance Awareness



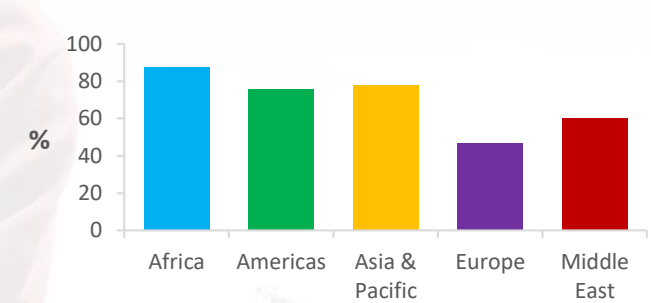
The status of Anthelmintic resistance is unknown in **73%** of respondents

## B Countries whose veterinarians do not carry out FECRT



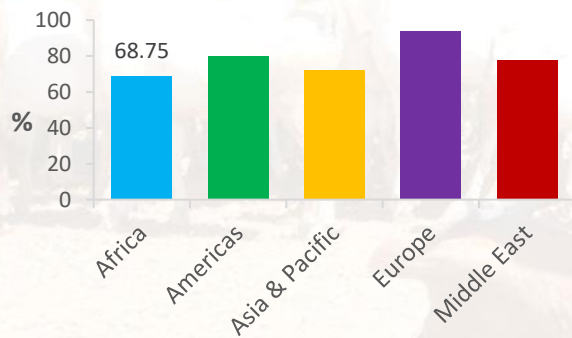
In **more than 50%** of respondents from Africa, Americas and Middle east

## C Anthelmintics sold over-the-counter



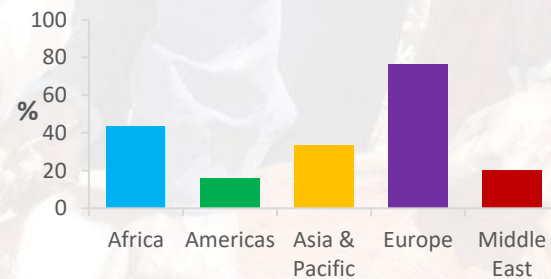
Globally, in **more than 50%** of respondents

## D Measures for regulating marketing, labelling and quality



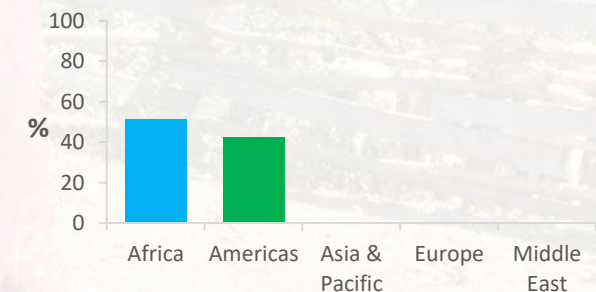
Globally, **more than 80%** of respondents

## E Regulatory surveillance on parasitic diseases & pharmacovigilance implemented



Globally, **less than 50%** of respondents

## F Farmers with access to advice on correct use on anthelmintic



In **Only 50%** of respondents from Africa and Americas





**Responsible and prudent use of anthelmintic chemicals to help control anthelmintic resistance in grazing livestock species**

## About the WOAAH Publication...

- **Objectives** (what we hope to collectively achieve through the guideline)
- **Global state of anthelmintic resistance** (why you should be concerned)
- **Methods to detect anthelmintic resistance** (options that exists & what could be applicable to your situation)
- **Development of resistance** (what you need to know and guard against)
- **Practical methods to control and reduce selection** (the options of action you could take at national level)
- **Responsibilities of stakeholders** (actor specific actions for prevention and control of anthelmintic resistance)
- **Research & Development** (key research gaps to inform practice & policy)



# Objectives of responsible and prudent use

- Ensuring the **rational use of anthelmintic** chemicals in animals
- Complying with the **ethical obligation and economic need**
- Preventing and **reducing anthelmintic resistance** in parasites
- **Maintaining the efficacy** and usefulness of anthelmintic chemicals (One Health)
- **Protecting consumer** health (food safety)



## Fecal Egg Reduction Count Test (FECRT): More practical





Veterinary Parasitology

Volume 318, June 2023, 109936



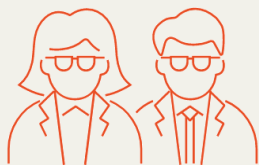
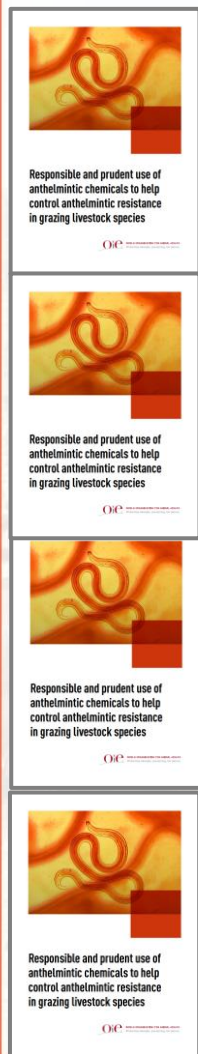
World Association for the Advancement of Veterinary Parasitology (W.A.A.V.P.) guideline for diagnosing anthelmintic resistance using the faecal egg count reduction test in ruminants, horses and swine

Ray M. Kaplan<sup>a</sup>  , Matthew J. Denwood<sup>b</sup>, Martin K. Nielsen<sup>c</sup>, Stig M. Thamsborg<sup>b</sup>, Paul R. Torgerson<sup>d</sup>, John S. Gilleard<sup>e</sup>, Robert J. Dobson<sup>f</sup>, Jozef Vercruyse<sup>g</sup>, Bruno Levecke<sup>g</sup>

<https://www.sciencedirect.com/science/article/pii/S0304401723000675?via%3Dihub>

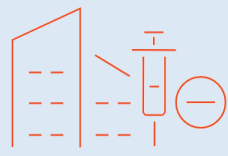
**Key weaknesses of the FECRT emphasized by the guide**

**Responsible and prudent use of anthelmintic chemicals to help control anthelmintic resistance in grazing livestock species**



## Competent authorities

- Efficient Regulatory Framework for registration
- Monitor and Regulate safe and effective use on the market
- Assessment with laboratory and field data with potential impact on AR
- Quality Certificates (importing countries)
- Monitor labelling & advertising
- Veterinary prescription



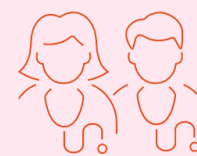
## Pharmaceutical industry

- GMP / GLP / GCP Compliant
- Pharmacovigilance
- Maintain technical expertise
- Record keeping
- Package size and containers adapted to approved indications
- Multistakeholder collaboration



## Wholesale and retail distributors

- Store anthelmintics securely & secure supply lines and warehousing
- Detailed record keeping
- Sell in original container with appropriate labels
- Appropriate training (storage conditions)
- Container return service



## Veterinarians

- Engage with farmers regarding parasite control using non-chemical control methods
- Detecting and reporting safety and efficacy issues
- Testing and provide localized accounts of AR
- Undertake and maintain training regarding AR

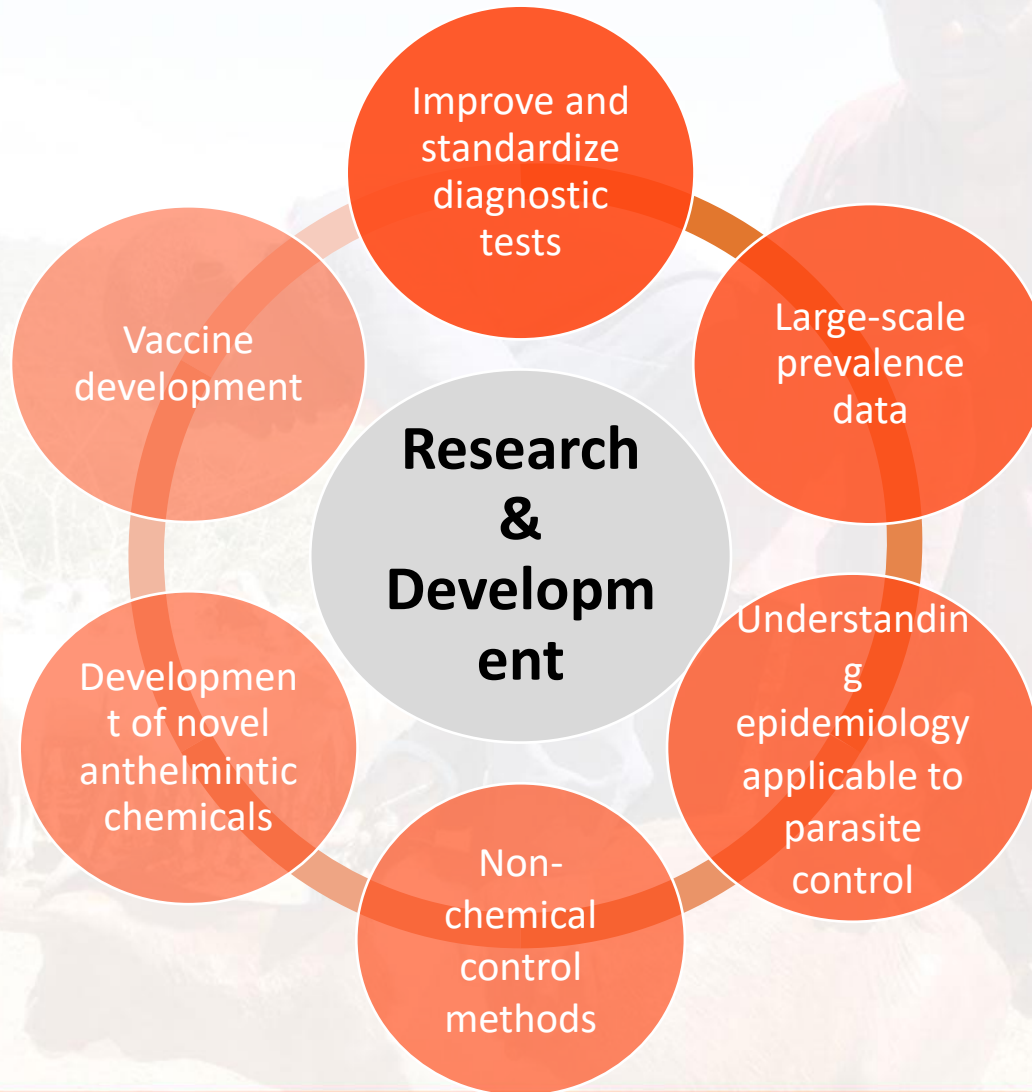


## Food animal producers

- Work with veterinarian when developing a parasite control program
- Use anthelmintics in accordance with legislation and instructions on the label
- Proper disposal of unused and expired surplus
- Keep treatment records and result of Dx tests
- Report adverse events to attending veterinarian
- Attend training programs provided by stakeholders



# Research & Development





## Global Strategic Alliances for the Coordination of Research on the Major Infectious Diseases of Animals and Zoonoses

### Priority Topics

African swine fever	AMR and innovative alternatives to antibiotics	Animal genomics/genetics for animal health	Bovine tuberculosis (bTB)	Brucellosis
Coronaviruses	Diagnostics (tools and technologies)	Emerging issues	Foot and mouth disease	Foresight
Helminths (including anthelmintic resistance)	Influenza	Mastitis	Mycoplasmas including CBPP/CCPP	One health (including food-borne pathogens)
Porcine reproductive & respiratory syndrome	Porcine Respiratory Disease Complex	Pox viruses	Vaccinology (tools and technologies)	Vector transmission and control

**Coordinating animal health research globally to accelerate delivery of disease control tools and strategies**

Total combined research budget of \$US 2.5+ billion



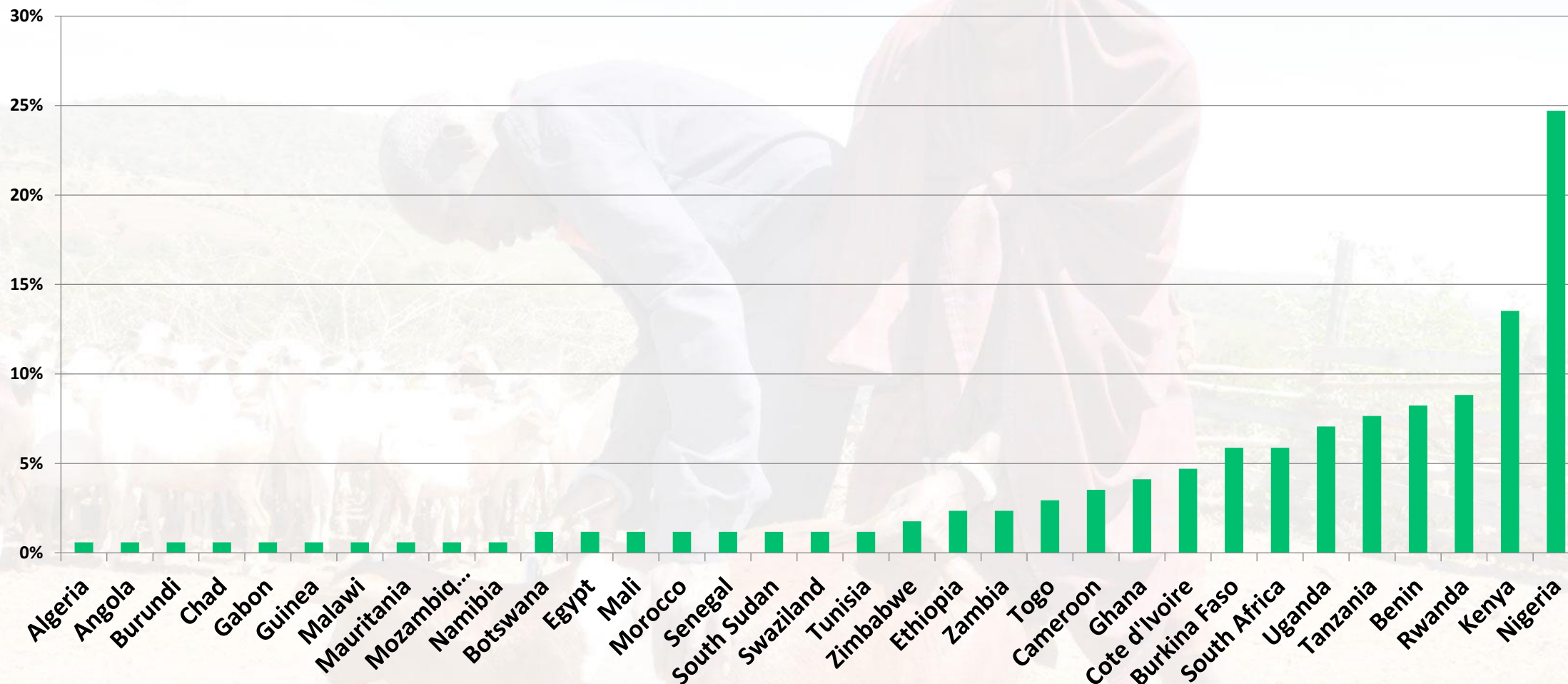
# WAAPV Africa Network Online Survey on Priority Research & Intervention Areas for the Control of Animal Parasitic Diseases in Africa

*Why you need to take action against Helminths*

Patrick Vudriko, Ayodele O. Majekodunmi, Abel S. Biguezoton, Naftaly Githaka, Daniel Masiga, Hussaina Makun, Jahashi Nzalawahe, Nlingisisi Babayani, Furaha Mramba, Souaibou Farougou, Lénaïg Halos, Allal Dakkak, Rosina Krecek, Richard Wall, Johnson Ouma

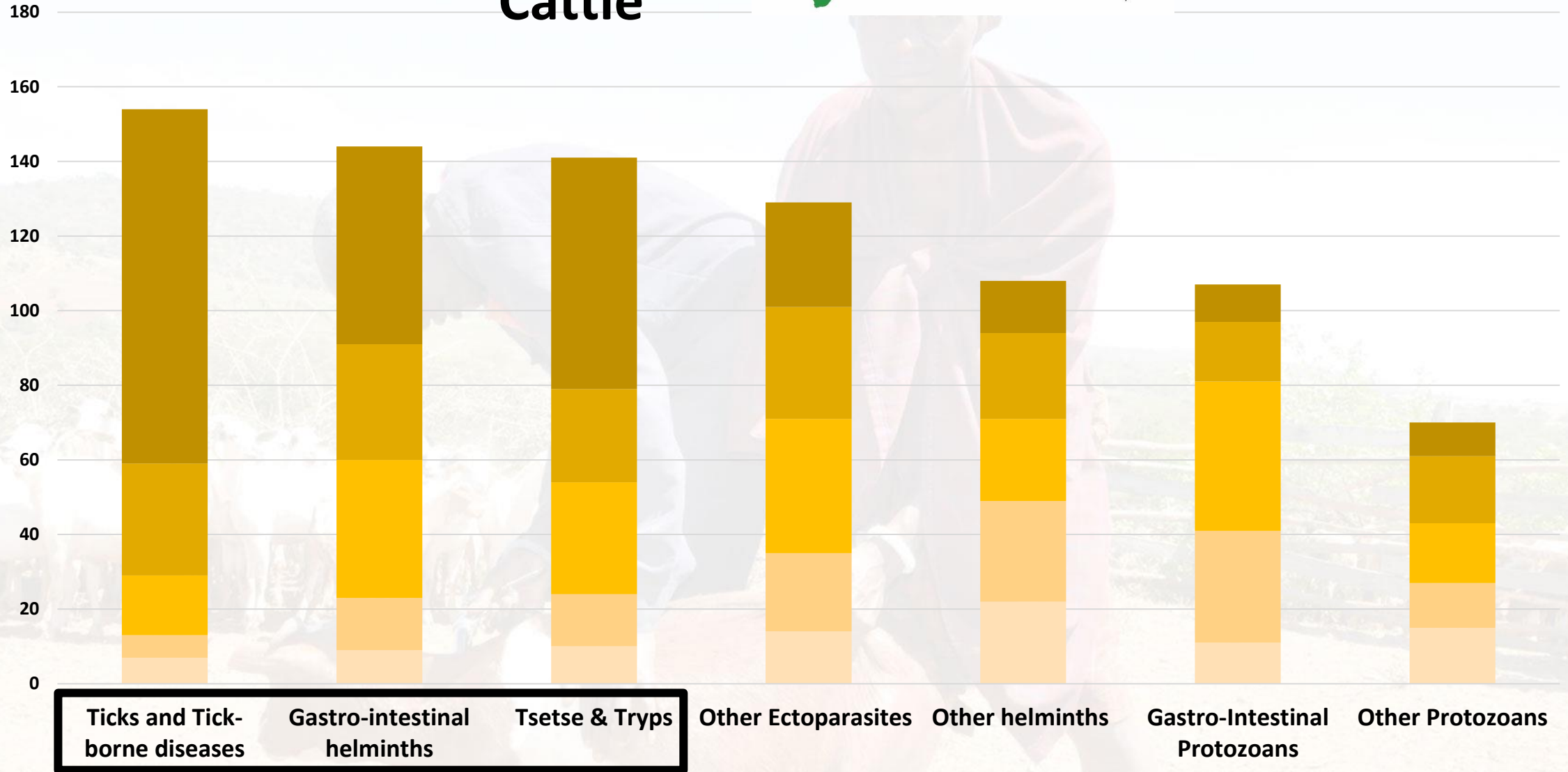


# Countries that participated in WAAVP-AN survey



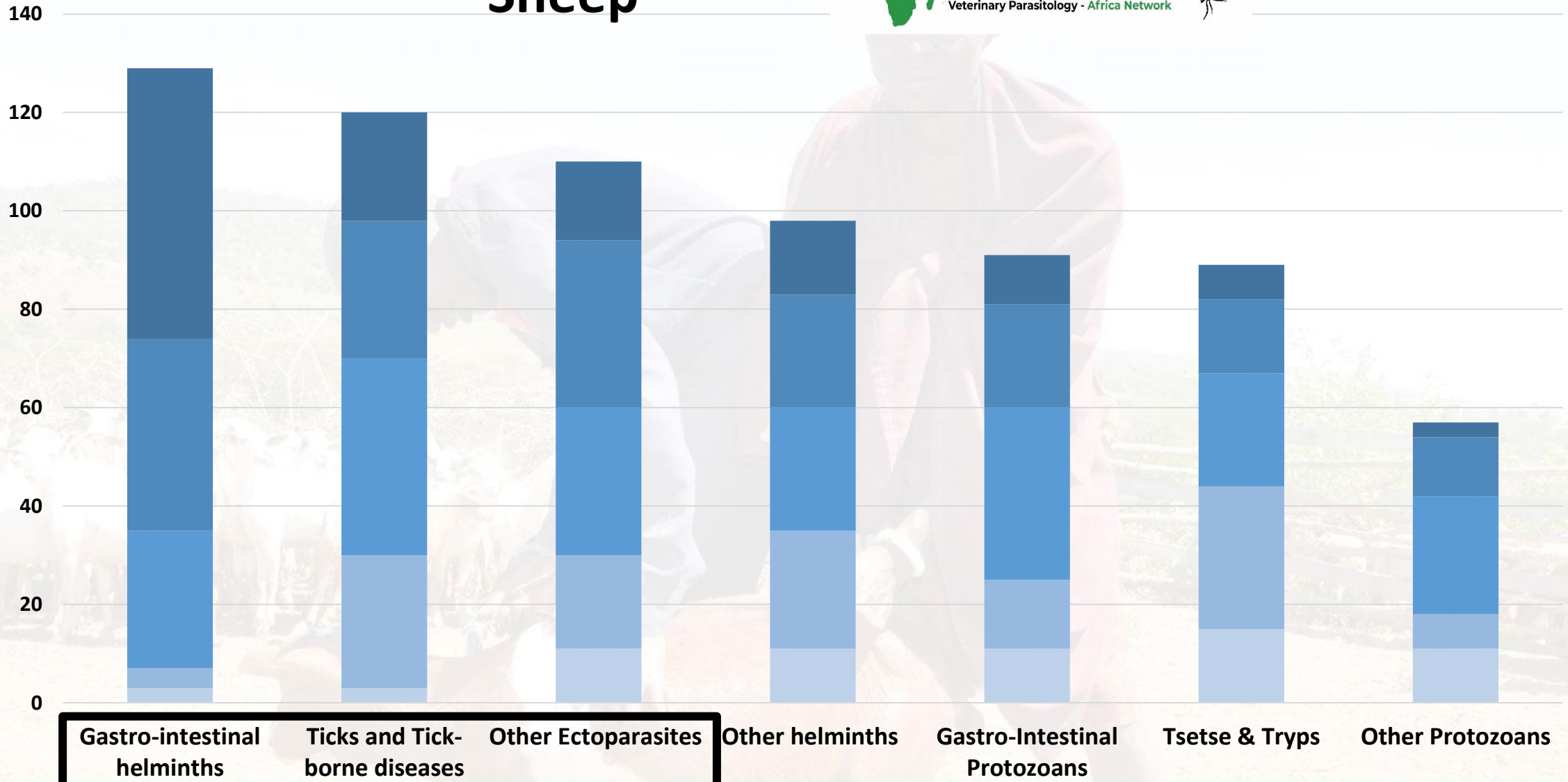


# Cattle

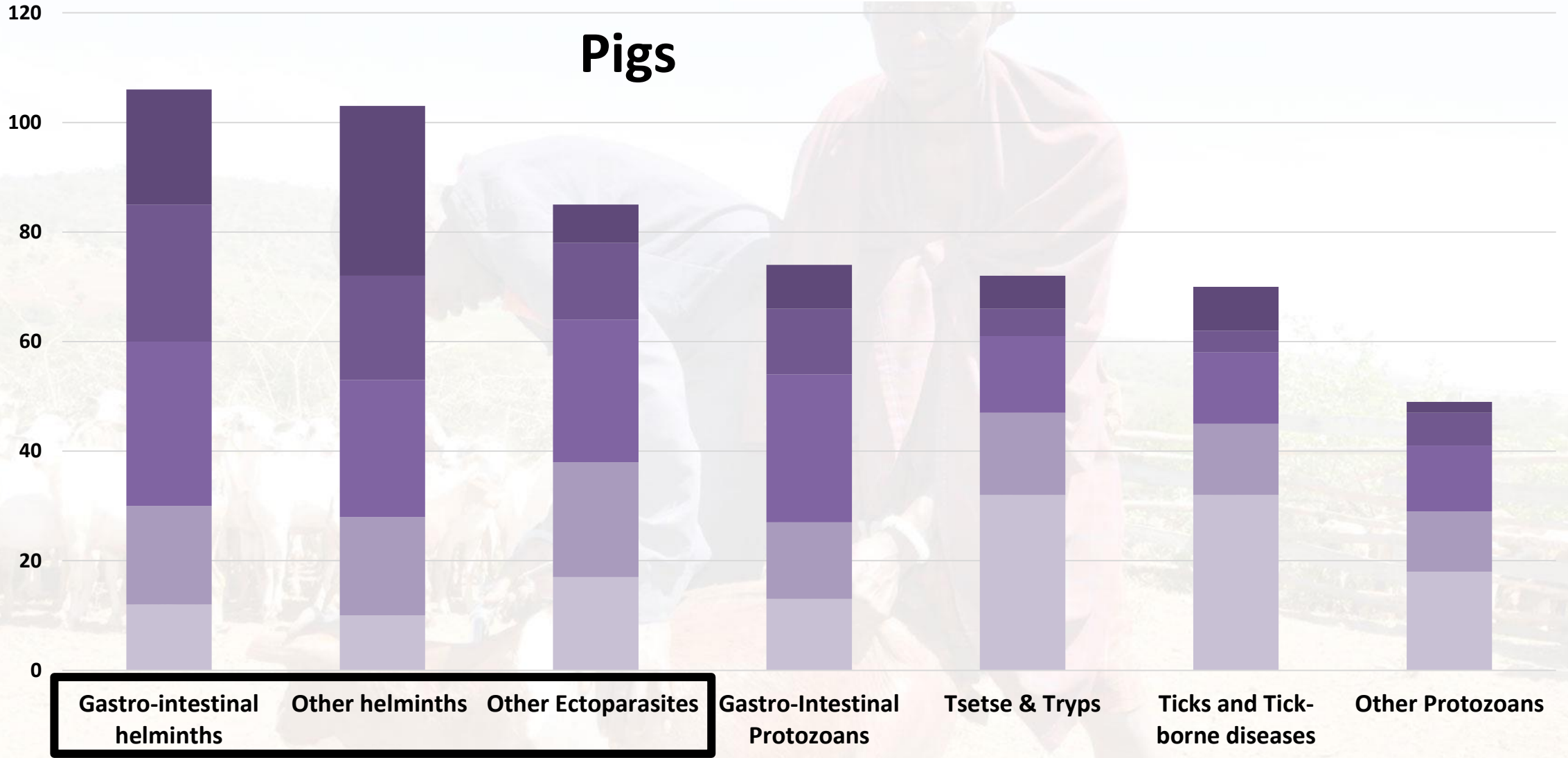




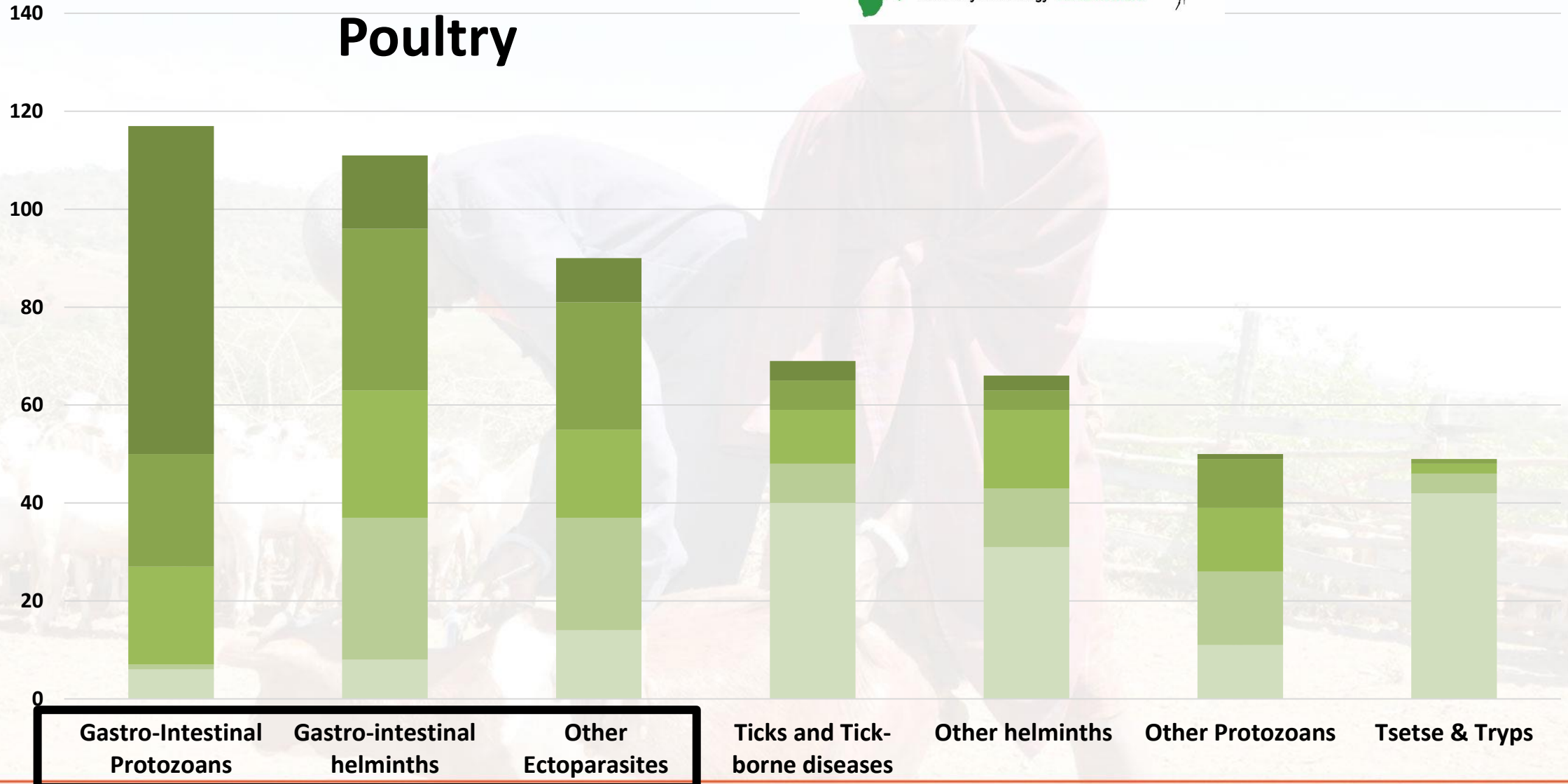
# Sheep



# Pigs



# Poultry



# Take home

- Helminths are among the most important veterinary parasites in Africa
- The WOAHA Publication on **Responsible and prudent use of anthelmintics** is a foundation for national government to make progressive steps towards control of antihelmintic resistance
- Steps towards implementation of the Publication is further discussed by Dr. Maria Szabo-WOAH