Food and Agriculture Organization of the United Nations

World Organisation for Animal Health

Results of the FMD Situation Questionnaires and PCP-FMD Self Assessment Tool

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GF-TADs
GLOBAL FRAMEWORK FOR THE PROGRESSIVE CONTROL OF TRANSBOUNDARY ANIMAL DISEASES

Food and Agriculture Organization of the United Nations

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Surveys - regional snapshots

PCP-FMD Self Assessment Tool (SAT-v2)Situation Survey- support countries in **assessing and prioritizing** the activities to control FMD

FMD situation, Vaccine ad vaccination surveys: to replace the individual country presentations and informed discussions during the meeting

14 Countries: Afghanistan, Armenia, Azerbaijan, Georgia, Iran, Iraq, Kazakhstan, Kyrgyzstan, Pakistan, Syria, Tajikistan, Turkmenistan, Türkiye, and Uzbekistan.

Responses received as of 10 November 2025:

PCP-FMD SAT v2:	10 Countries
FMD situation survey:	12 countries
Vaccine & Vaccination Survey:	11 countries

The Self-Assessment Tool for the PCP-FMD – background (1/2)

INPUT

Thirty-six indicators have been defined across **four components** that are critical for FMD control:

(1) Livestock and Stakeholders
(2) Surveillance and Diagnostics
(3) Prevention, control and evaluation
(4) Veterinary Services

For each indicator, criteria for assigning a score between 1-4 (min: 1; max: 4) are provided.

- Scores **DO NOT** directly correspond to the PCP-FMD stage; however, each score has been mapped to the appropriate stage of the PCP-FMD ("SAT-PCP correspondence" tab)

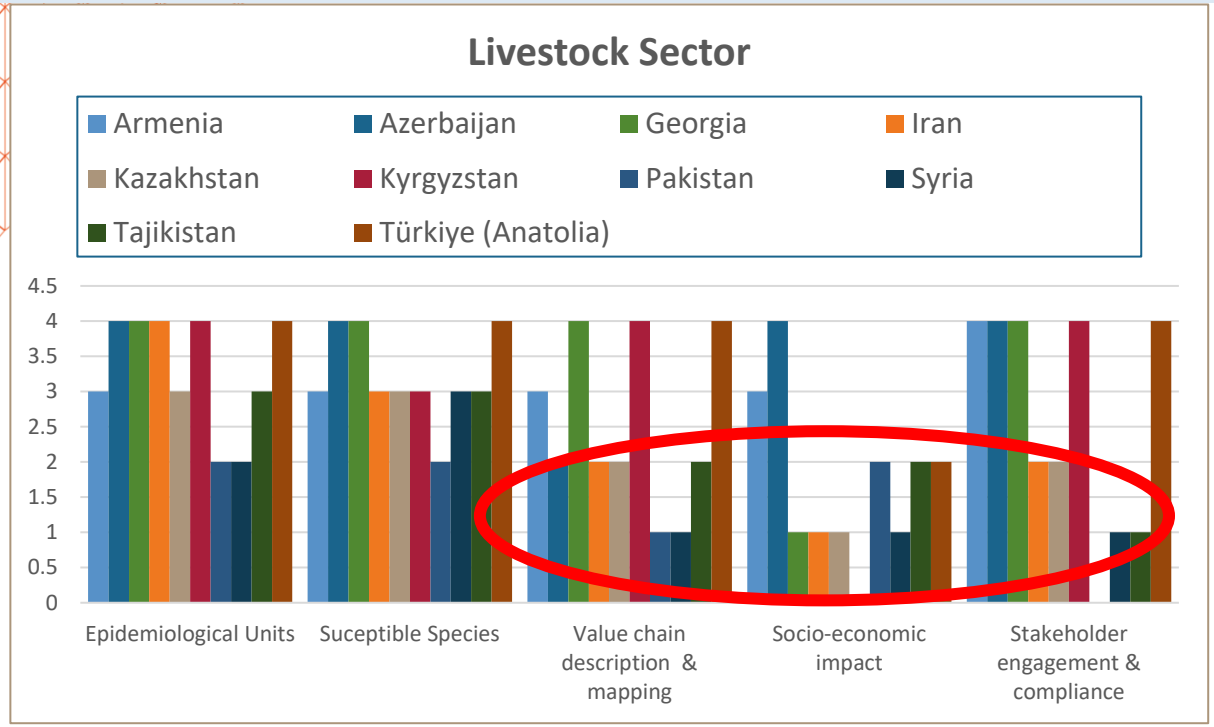
OUTPUT

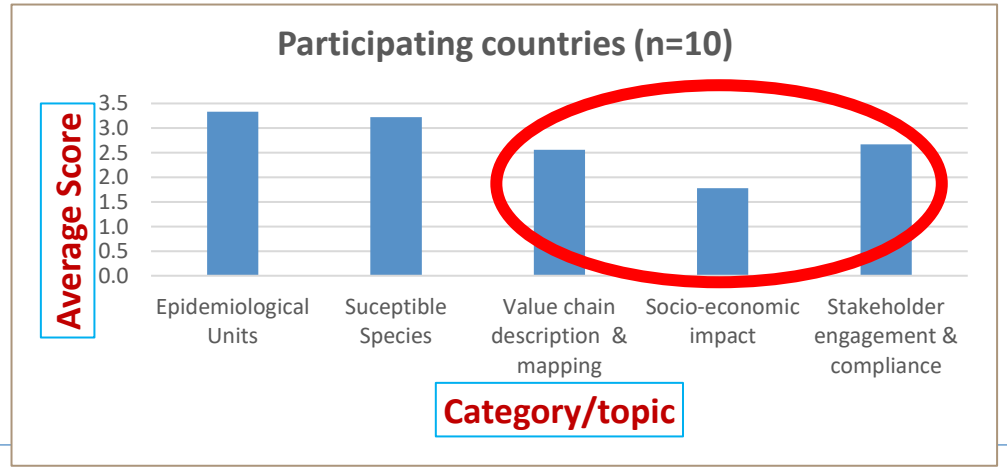
This SAT produces a summary to support countries **prioritizing the activities** needed to progress FMD control in the short and medium terms.

The summary is also helpful for the RAG and the GF-TADs FMD WG to better understand about the FMD control activities in the country.

- Outputs may also be helpful to **identify the short- and medium-term gaps and needs** that require support and attention; and discuss with national authorities, resource partners and international organizations.

WEA SAT results 2025: Livestock sector and stakeholders Component



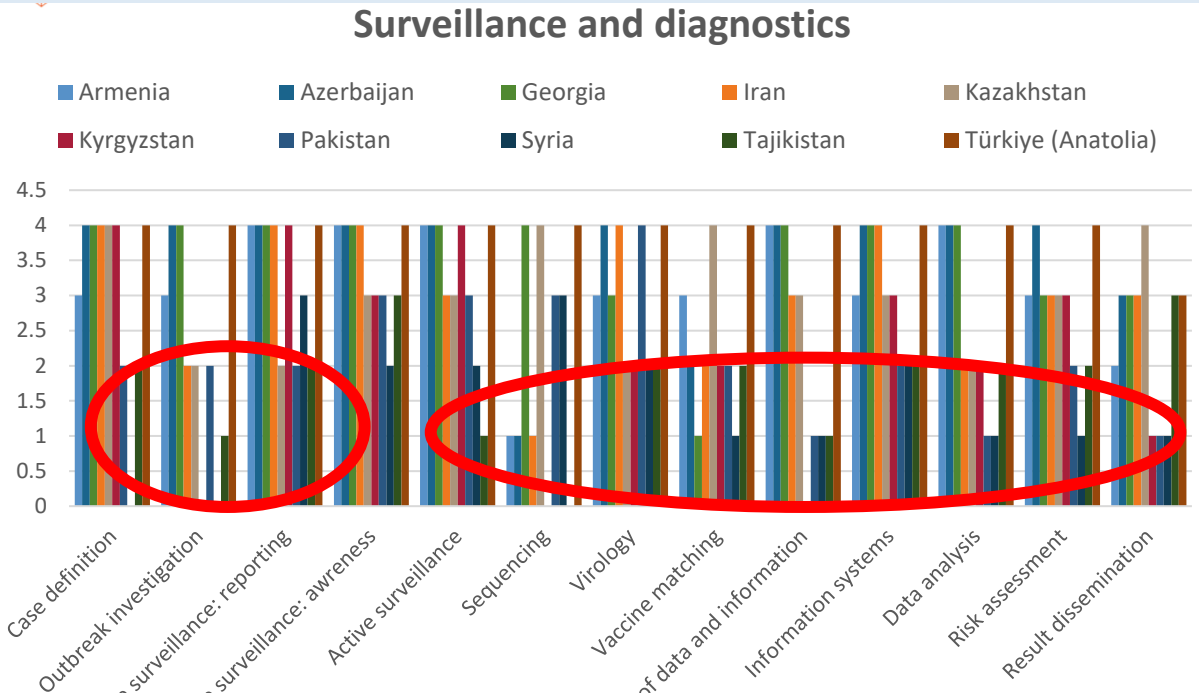


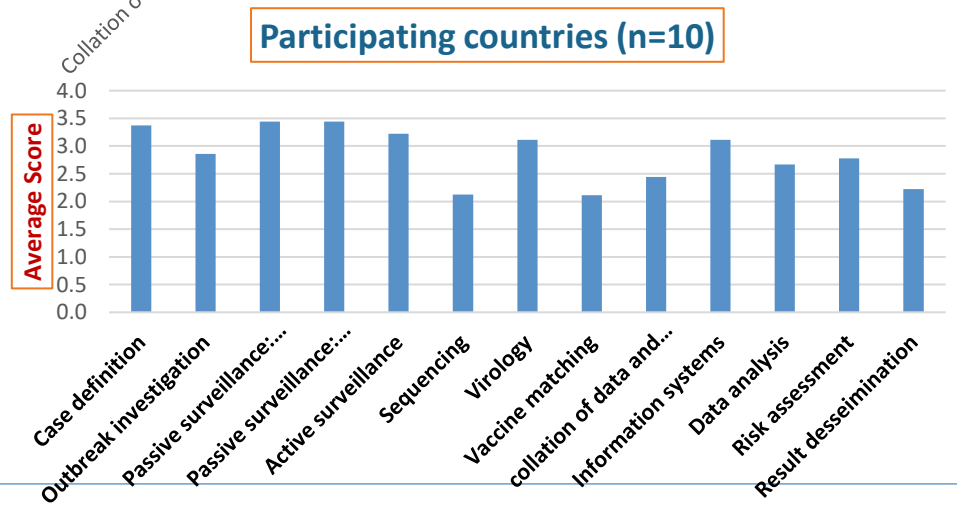
36 indicators across 4 components critical for FMD control:

1. **Livestock and Stakeholders**
2. **Surveillance and Diagnostics**
3. **Prevention, control and evaluation**
4. **Veterinary Services**

Category	Topic
Livestock population	Epidemiological units
	Susceptible species
Socio-economics	Value chain description and mapping
	Socio-economic impact
Stakeholders	Stakeholder engagement

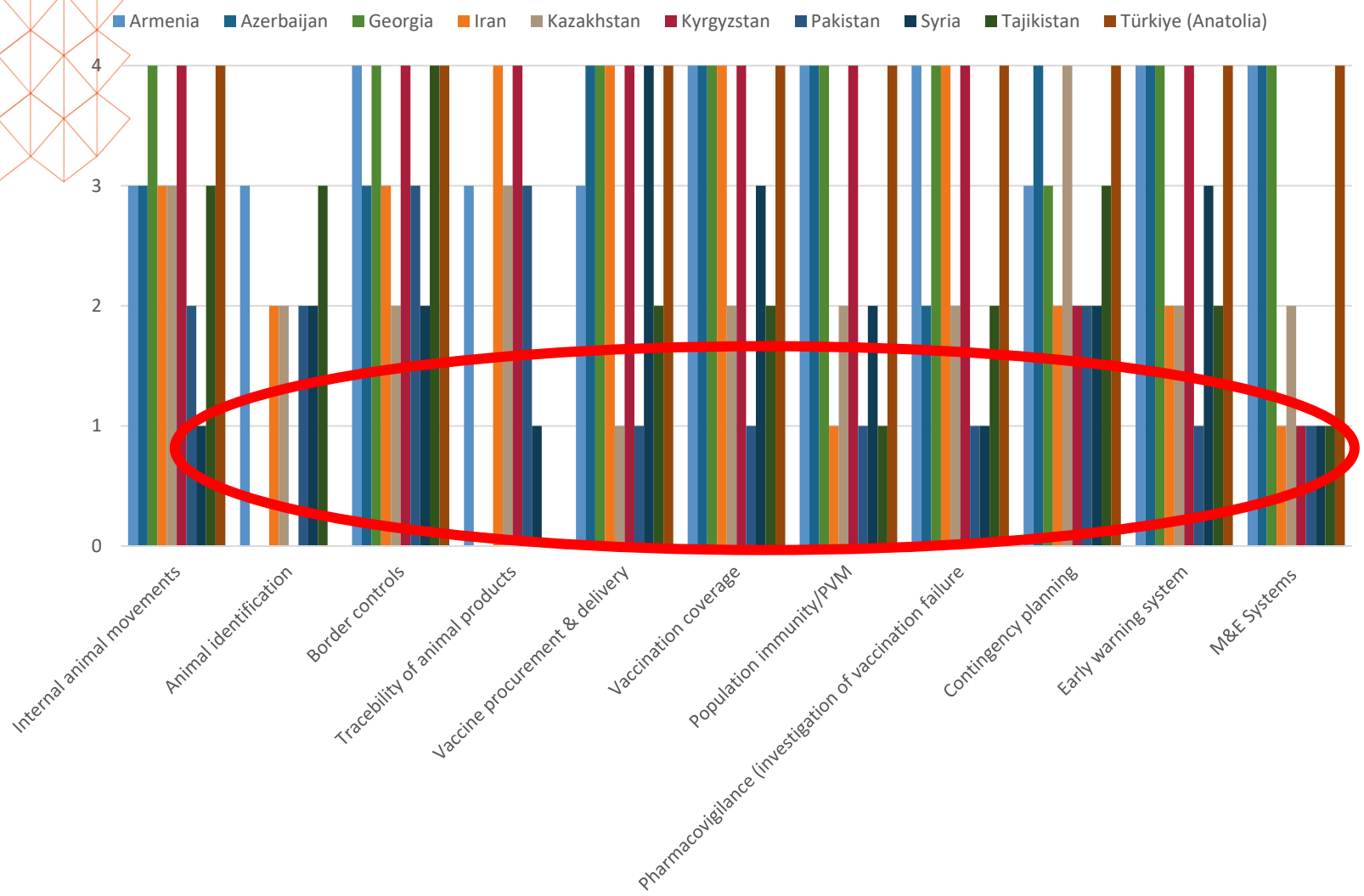
WEA SAT results 2025 : Surveillance and diagnostics Component





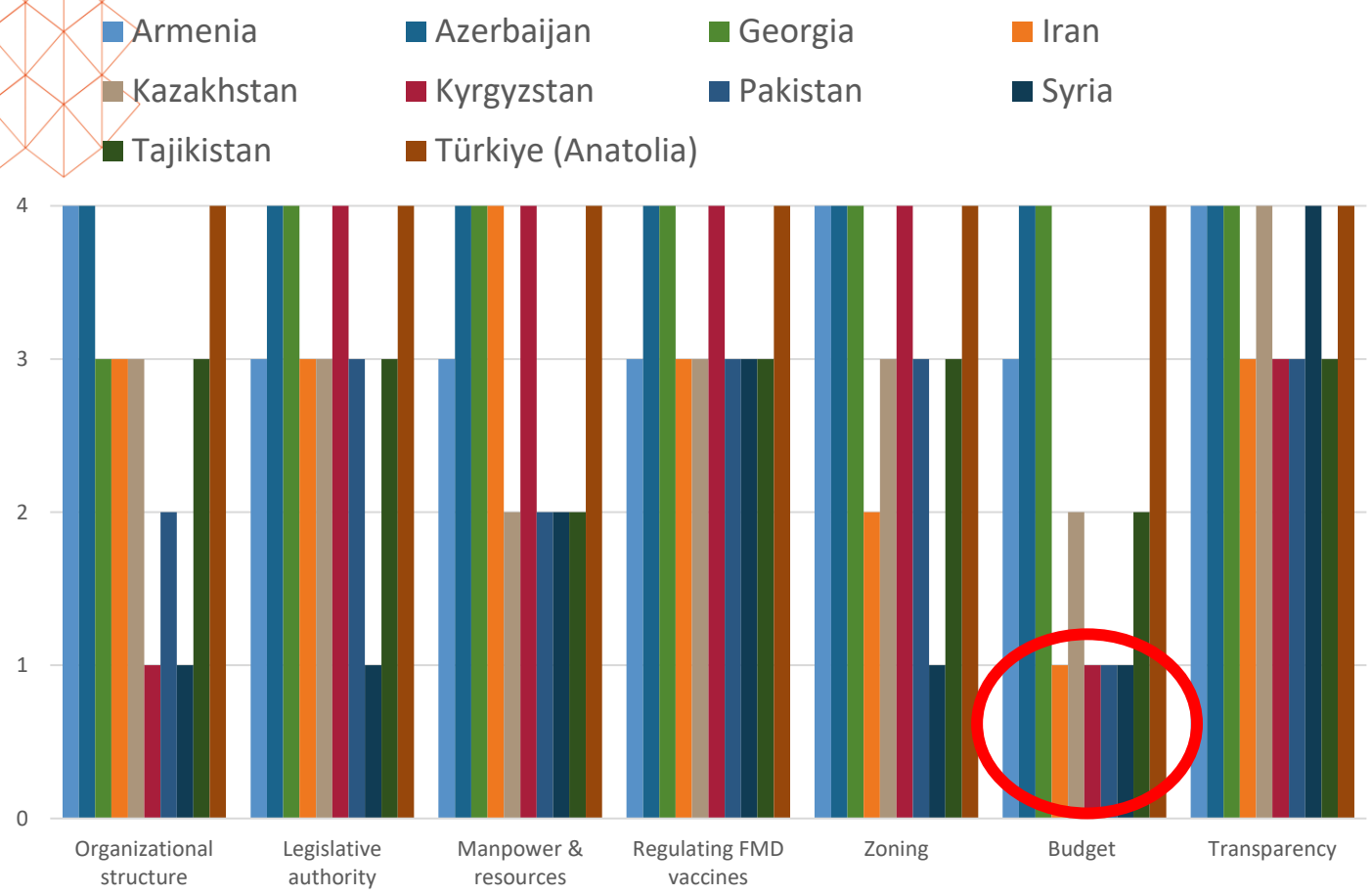
Category	Topic
Surveillance tools & procedures	Case definition
	Outbreak investigation
	Passive surveillance: reporting
	Passive surveillance: awareness
	Active surveillance
	Sequencing
	Virology
	Vaccine matching
Data management	**Collation of data**
	Information systems
	Data analysis
	Risk assessment
Communication	**Result dissemination**

WEA 2025 SAT results : Prevention, control and evaluation Component

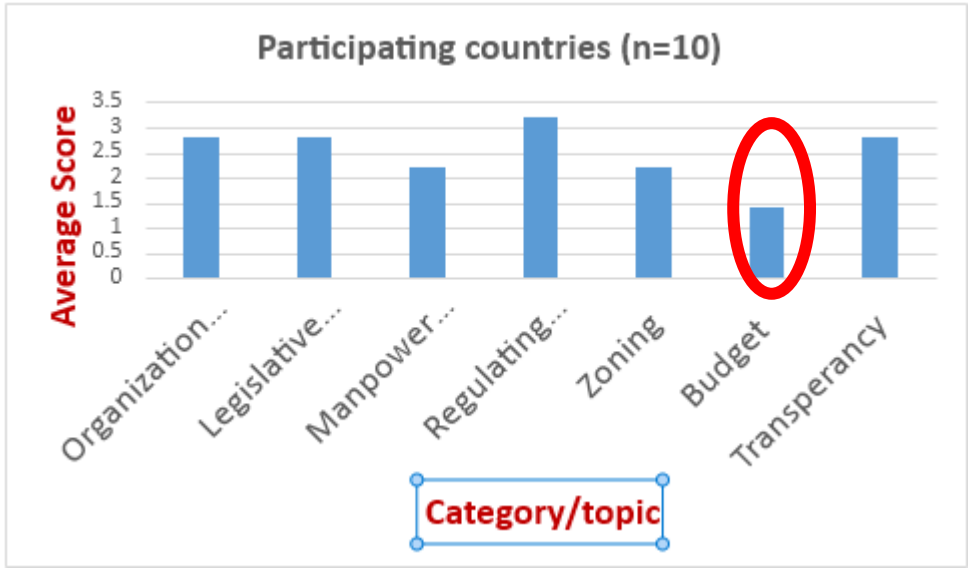


Category	Topic
Movement controls	Internal animal movements
	Animal identification
	Official border controls
	Traceability of animal products
Vaccination	Vaccine procurement and delivery
	Vaccination coverage
	Population immunity/post-vaccination monitoring
	Pharmacovigilance (investigation of vaccination failure)
Early warning	Contingency planning
	Early warning system
M &E	Monitoring and Evaluation systems

WEA 2025 SAT results : Veterinary Services Component (4/4)

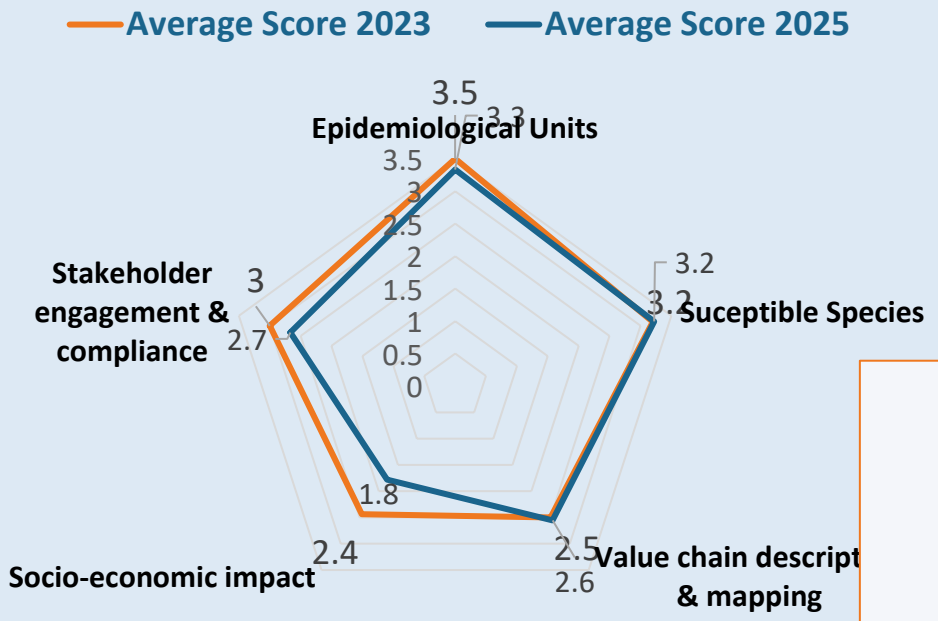


Category	Topic
Coordination	Organizational structure
Legislation	Legislative authority
Professional competency	Manpower and resources
	Regulating FMD vaccines
	Zoning
	Budget
	Transparency

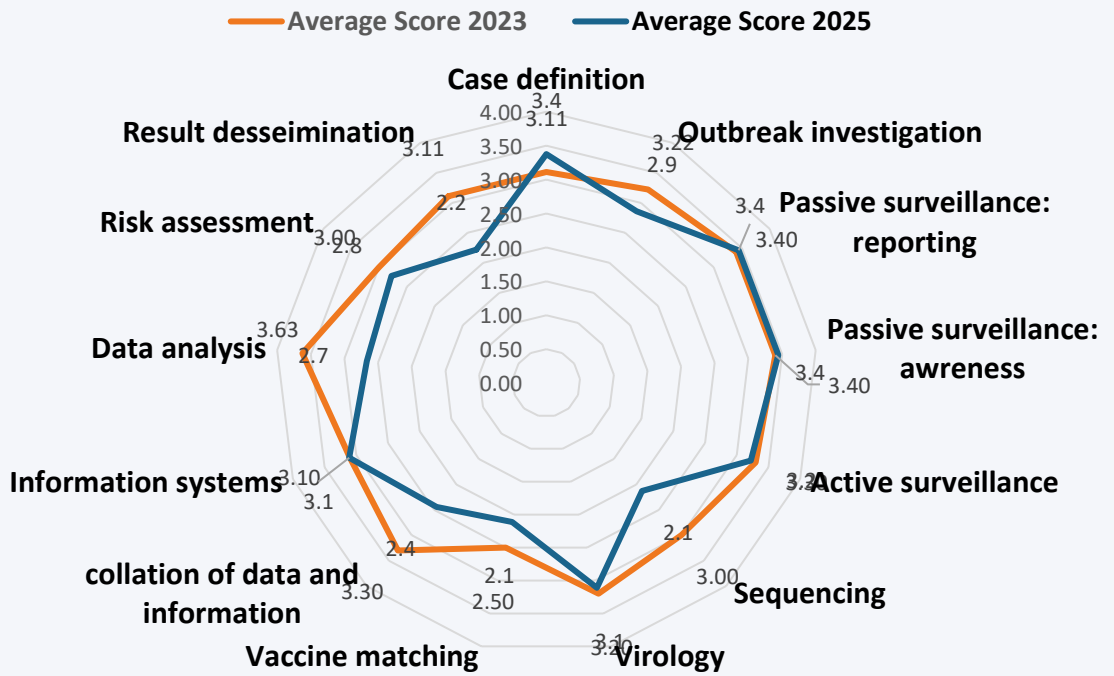


Comparison - WEA SAT results 2023 vs 2025

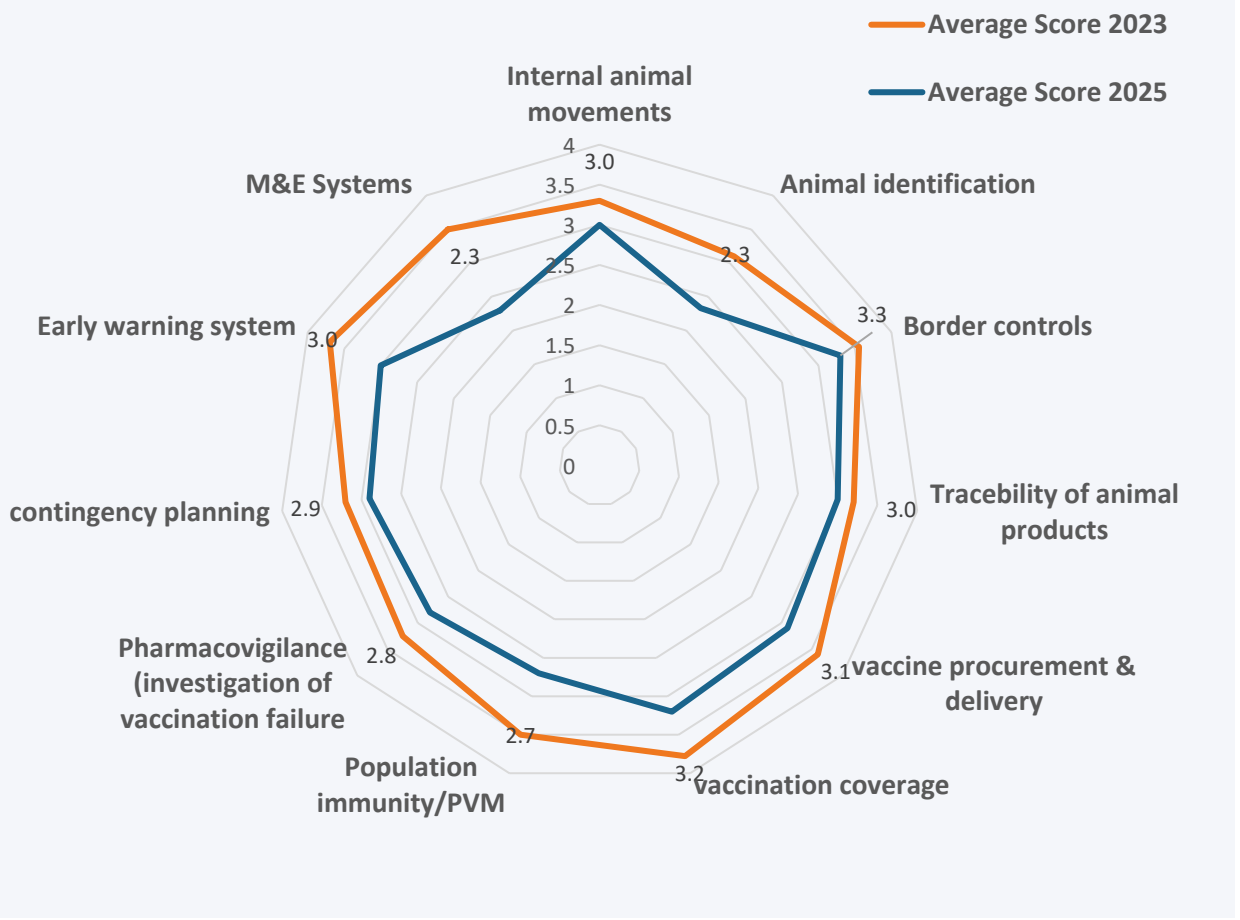
Livestock sector and stakeholders Component



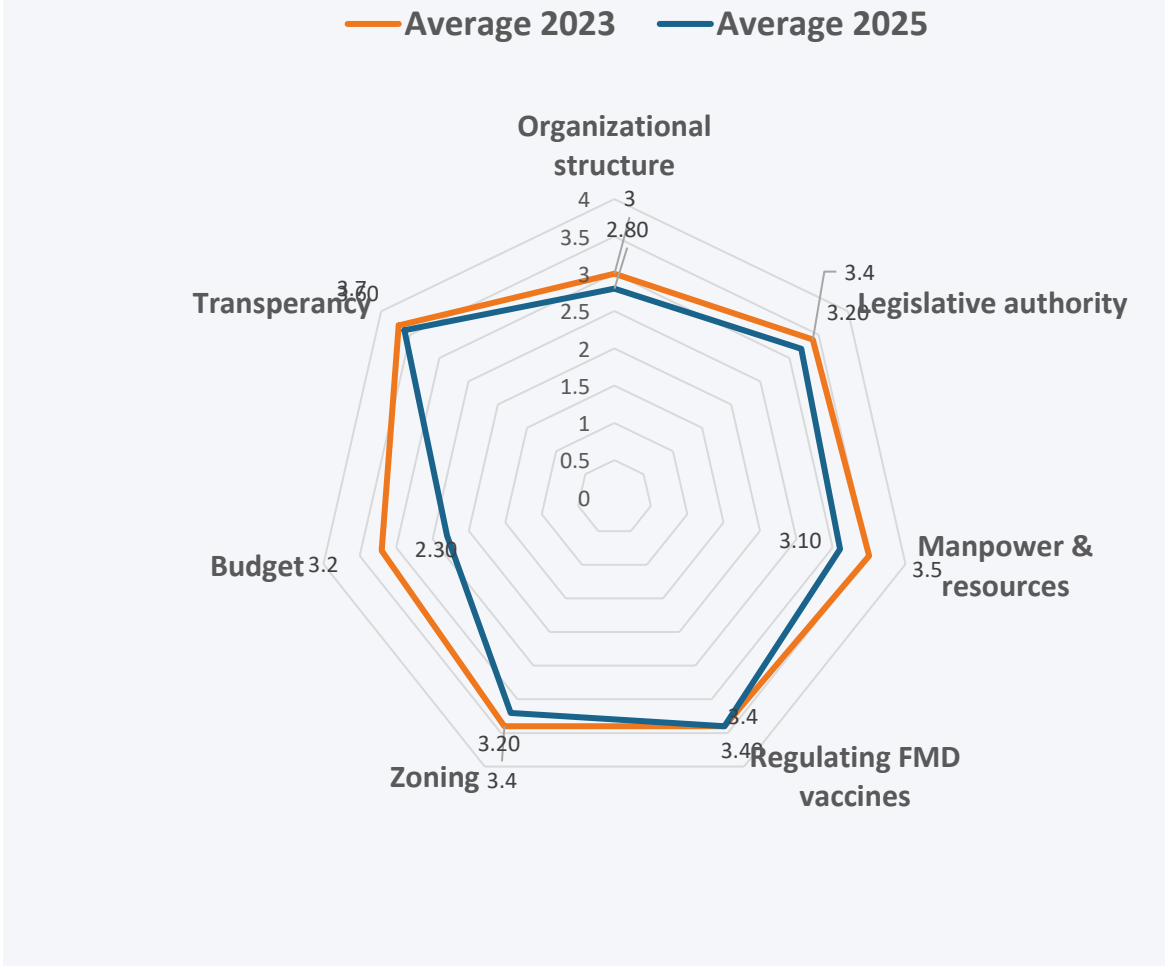
Surveillance and diagnostics Component



Comparison - WEA SAT results 2023 vs 2025



Prevention and Control Component



Veterinary Services Component

FMD situation survey

FMD outbreaks in last 2 years: 5 countries reported; both large and small ruminants

Lab result: Only One country shared the lab results

General Surveillance Practices

- Most countries rely primarily on passive surveillance.
- Active surveillance (clinical and serological) conducted in several countries, mainly at borders and high animal density areas.
- Variation in frequency of active surveillance;
- One country implements a Risk-Based Surveillance Program (RBSP) four times per year.

FMD situation survey

Serological Surveillance

- One country (Turkey) reported regular both NSP and SP serosurveillance
- Two countries (Georgia, Uzbekistan) carry out NSP annually
- Three countries (Armenia, Azerbaijan Kazakhstan) conducted NSP serosurveillance in 2024
- One country (Tajikistan) carried out SP serosurveillance in 2024

Socio-Economic Studies

- Only two countries (Kyrgyzstan and Pakistan) reported socio-economic impact studies

FMD situation survey - FMD Knowledge & Evidence Gaps

Epidemiology:

- Limited understanding of **FMDV strain diversity** and **virus circulation**
- Gaps in **antigenic/genetic characterization** of emerging and exotic lineages
- Limited knowledge on roles of **wildlife** and **small ruminants**

Vaccines & Immunity

- Insufficient **vaccine matching** and **effectiveness data**
- Issues with **vaccine availability**, **procurement, coverage**, and **security**
- **Lack of immunity** to exotic virus strains
- Limited **post-vaccination immunity assessments**

FMD situation survey

Livestock Movement & Trade

- Poor understanding of **livestock movements** and **trade corridors**
- Gaps in data on **formal/informal border trade** and **nomadic systems**
- Weak monitoring at **markets, slaughterhouses, and inspection points**
- Limited analysis of **interfaces** – wildlife, small ruminant–cattle, and imported livestock

Socioeconomic & Behavioural Aspects

- Sparse **economic impact evidence** and few **cost-benefit studies**
- Lack of **socio-behavioural data** on **biosecurity practices**

Enabling Environment

- Absence of a **functional animal identification and traceability system**
- Weak **coordination** among veterinary, trade, and border authorities
- Limited capacity to analyze **market-driven movements** and **dense production systems**

Immediate Gaps

Early Warning & Detection

- Delays in **detecting and reporting emerging FMD risks**
- Limited capacity for **early warning and rapid response systems**
- Inadequate **diagnostic and virus characterization capacity**
- **Limited data sharing** and integration for regional risk assessments
- Lack of digital systems for disease **data management** at national level

Coordination & Collaboration

- Weak cross-border, regional/sub-regional **coordination mechanisms**
- Inadequate **control measures in neighbouring countries** affecting regional progress
- Absence of a **regional platform for information exchange** and coordination

Resources & Capacity

- **Insufficient funding** for effective implementation of control measures.
- **Limited trained personnel** for surveillance, vaccination, and outbreak management.

Need for Support

- Establishing a **functional regional early warning system**
- Support **development of vaccination strategies** and coverage monitoring
- **Trainings:** epidemiology, surveillance methodology, diagnostics, vaccine procurement, vaccination, PVM, animal traceability, socio-economic analyses and disease impact studies
- **Simulation exercises** to improve preparedness and response

FMD Vaccine and Vaccination Survey Summary

- **Eleven countries sent their questionnaire**
  - Generally similar answers
- **Species vaccinated**
  - All countries vaccinate cattle
  - Eight vaccinate small ruminants
  - Kazakhstan reported swine vaccination
  - Azerbaijan and Iran specified that they vaccinate buffalo

Vaccination strategies - cattle

- **Eleven countries practice mass vaccination for cattle**
  - Three countries practice some form of border or buffer vaccination
  - Four countries reported targeted vaccination, where reported this was pre-seasonal movement or in high-movement areas (eg markets)
  - 10 countries report vaccinating every six months
- **Seven countries described emergency vaccination in cattle**
  - Four countries reported a radius: 3km, 5km, 10km, 15km
  - No countries only practice emergency vaccination
- **Four countries vaccinate cattle on request of the owner**

Vaccination strategies – small ruminants

- **Nine countries practice mass vaccination for small ruminants**
  - Two countries practice some form of border or buffer vaccination
  - Four countries reported targeted vaccination, where described pre-seasonal movement
  - Five countries vaccinate every 6 month, three every 12 months
- **Three countries described emergency vaccination in small ruminants**
  - Radius described as either 3 or 5km
  - No countries only practice emergency vaccination
- **Five countries vaccinate small ruminants on request of the owner**

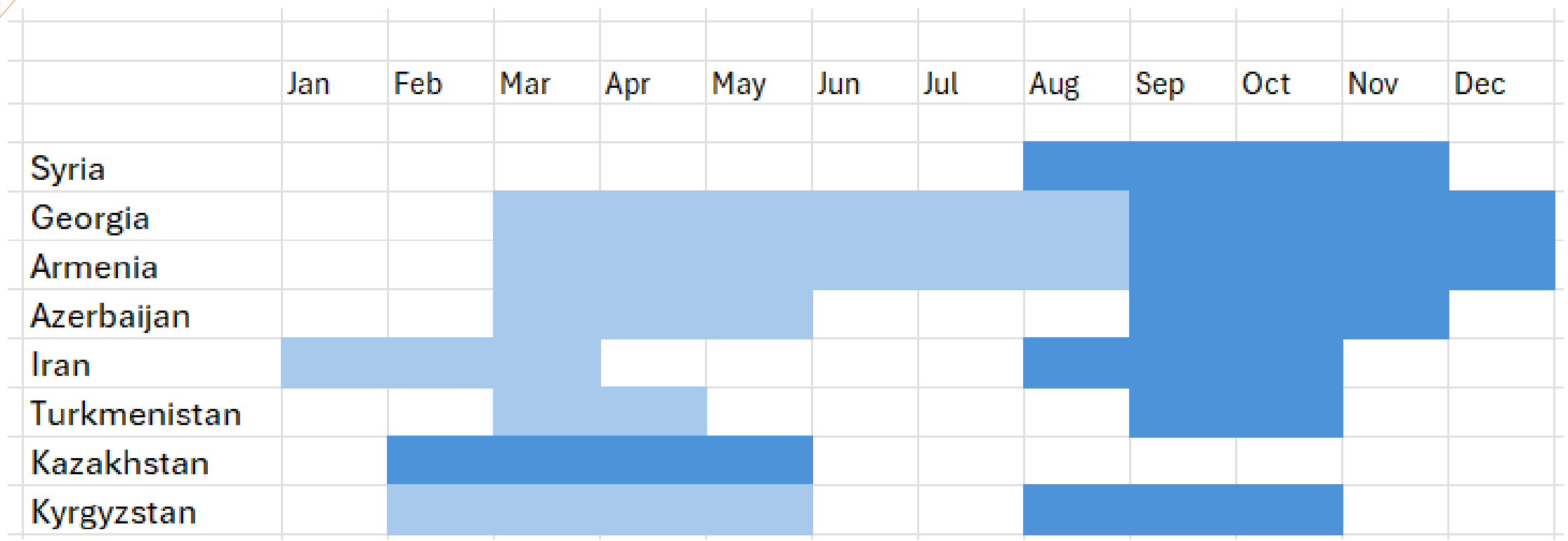
Vaccination strategies - Coverage

Very difficult to assess vaccine coverage

- In 2024 reported as:
  - 17% to 100% for cattle (median 94%)
  - 0% to 100% for small ruminants (median 79%)

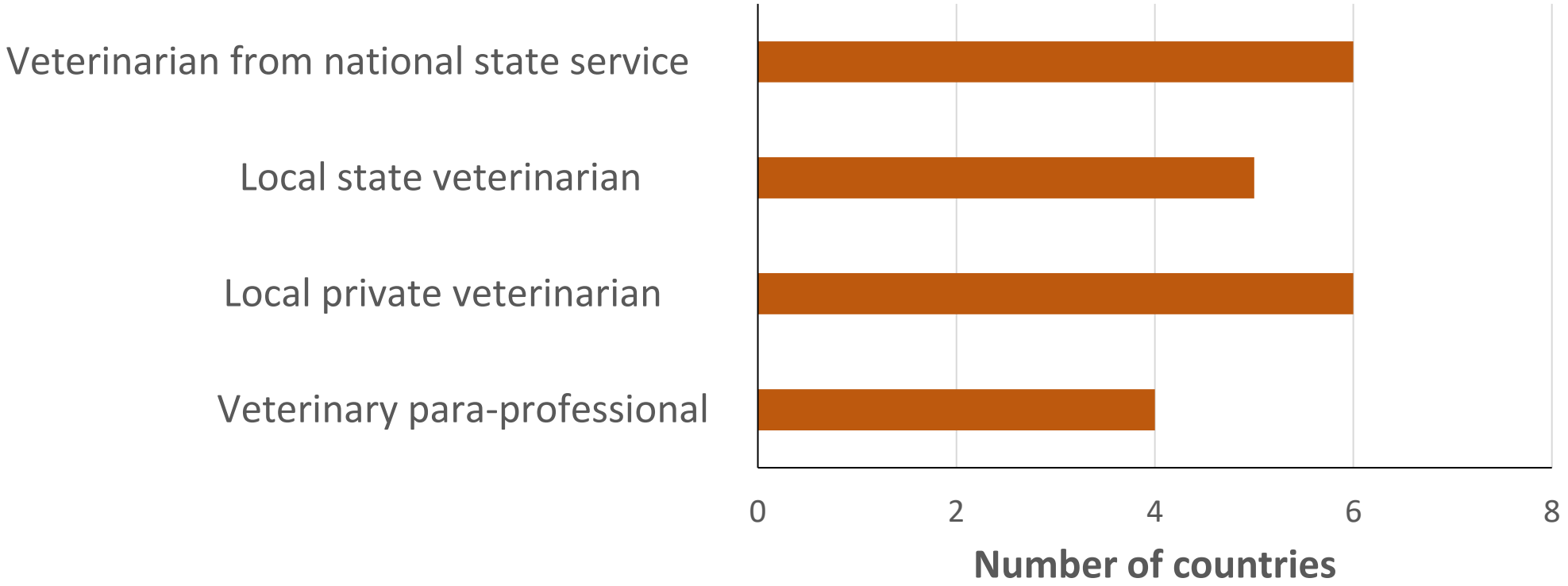
- In 2025 reported as:
  - 17% to 100% for cattle (median 79%)
  - 0% to 100% for small ruminants (median 61%)

Vaccination schedule



Only two countries consult with their neighbours about vaccination scheduling

Who administers FMD vaccines?



Who pays?

- Only one country expects **livestock owners** to cover all costs associated with FMD vaccination
- 4 countries have a **cost-sharing system** between public and private sectors for FMD vaccination
- 3 countries stated that there were **inadequate public funds** available for their FMD control programme
- 2 countries indicated **funds from international donors** had been used to purchase vaccines (covering 85% - 100% costs)
- 6 countries stated that there was some form of **public private partnership**, or at least private involvement in providing FMD vaccines

Which vaccines are used?

- 6 countries: ARRIAH
- 4 countries: Yetal Aftovac
- 3 countries: ŞAP Turvac, BI Aftovax
- 2 countries: Shelkovski
- 1 country: LLC Agrovet FMD vaccine, Pasouk Aphtpasoul, Razi FMD Polyvalan, Oil Ronak, Shaya Vira-aftovax, PSE Shchelkovo Biocombinat, Vetal Aftodoll, Locally produced, Undisclosed

All vaccines 6PD50

4 countries described using more than one vaccine:

Armenia, Tajikistan use two
Pakistan use three
Syria used four
Iran used ten

Towards FMD serotype C global eradication

"As serotype C has not been detected globally since 2004, efforts are underway to estimate the confidence that it is extinct and understand the risk of re-introduction of this serotype"

- **One country reported that serotype C was included in a vaccines registered or used nationally**
- No countries confirmed they maintained live serotype C stocks for research, diagnosis or vaccine manufacturing purposes

Laboratory capacity, Vaccine matching and Post-vaccination monitoring

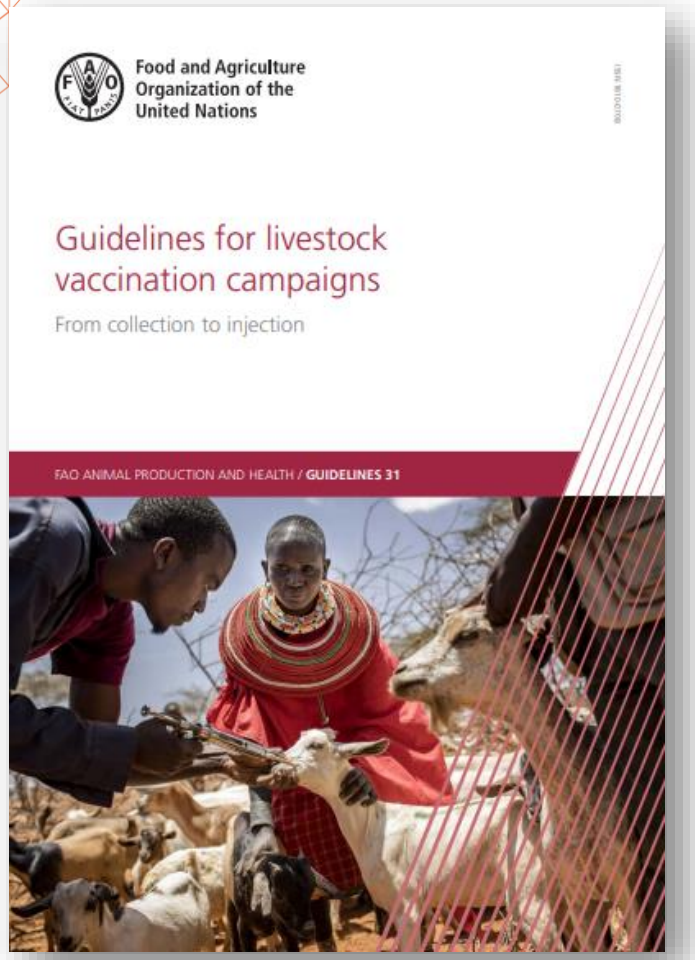
- All countries stated they had national laboratory capacity for FMD diagnosis
  - Only one (Georgia) described sending samples to a laboratory outside their country (WRL)
- **Two countries confirmed that vaccine matching tests been conducted** on samples in the last two years
  - Submitted to WRL Pirbright (1), The Şap Institute Türkiye (1)
- **Eight countries used serological surveys to determine vaccination program effectiveness**
- **One country (Iran) stated there had been FMD outbreak in vaccinated animals.** One was unsure (Syria)
- **Five countries reported doing potency tests on vaccine prior to use, a**ll were in a national laboratory

Conclusions

There are opportunities to improve

- Vaccine matching
- harmonisation of vaccine campaigns across borders
- International laboratory collaborations

New FAO guidelines



Vaccination is one of ***the main pillars in disease prevention****.*

However, its effectiveness largely depends on appropriate delivery, such as adequate cold chain and hygienic injection. The success of large vaccination campaigns is in such details that will ensure appropriate immunity and prevent livestock diseases. The guidelines presented here offer in a concise and succinct way the most important aspects for consideration when planning and executing livestock vaccination campaigns.

The information provided in these guidelines will be easy to take into the field and implement*, and by this contribute to the fight against the spread of livestock diseases including zoonotic ones.*

https://www.fao.org/documents/card/fr/c/cc3038en/

Resources on the PCP Hub

- **VADEMOS** a decision-support tool intended to be used to **estimate current and future vaccine dose demand for FMD** at a national, regional and global levels.
- **Socioeconomic Analysis guidelines** and open access course
- **Vaccine Value Chain Tool (in development)** – framework to assist countries in **designing effective and well-managed vaccination programs**, ensuring that vaccine delivery is cost-effective and timely
- And lots more!

Thank you for your attention and to the responding countries

Any questions/comments, please contact the GF-TADs FMD Working Group at fao-fmd@fao.org and woah-fmd@woah.org

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Founded as OIE