



Current Status of vaccination against FMD in India

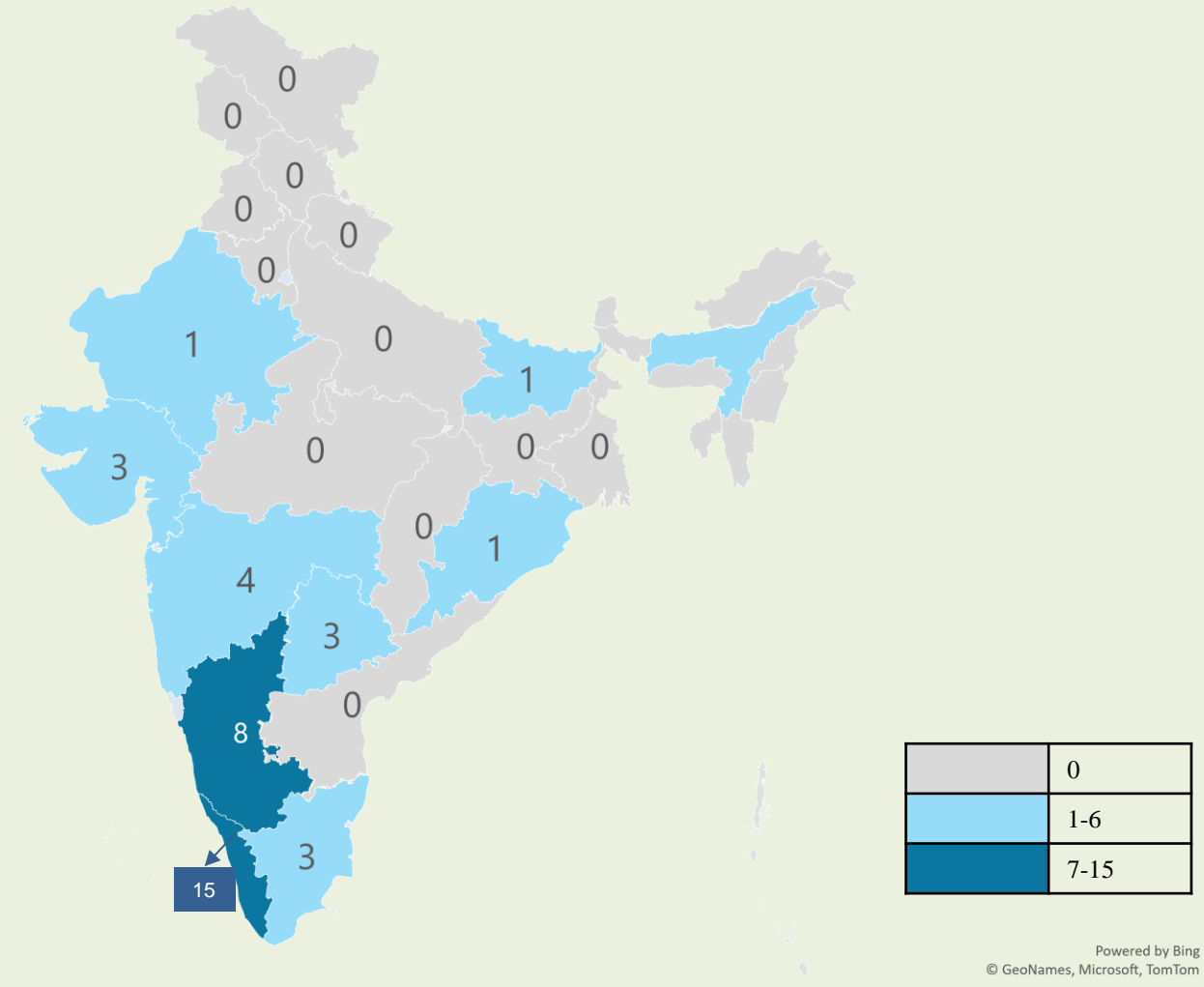
Ministry of Fisheries, Animal Husbandry and Dairying

Department of Animal Husbandry and Dairying, Govt. of India

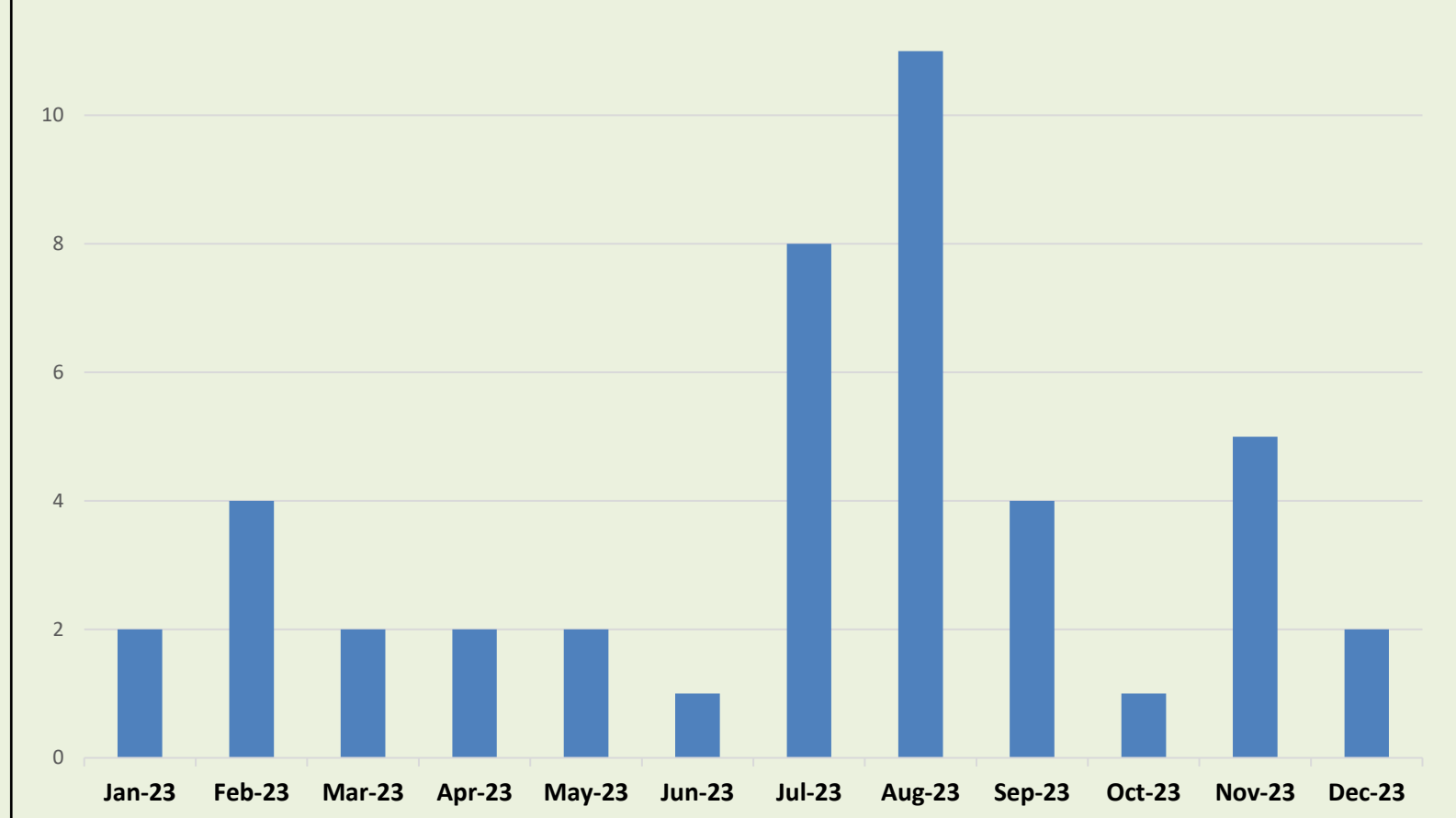


FMD SITUATION

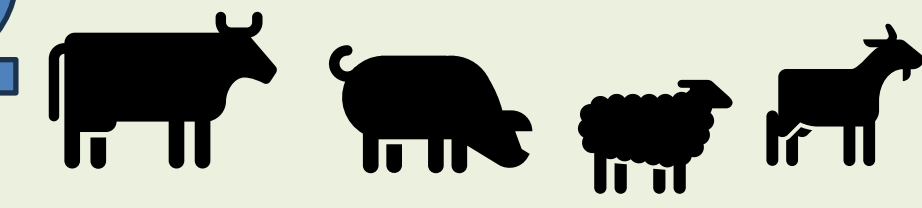
Spatial Map of FMD outbreak in 2023



FMD outbreak trend in 2023 Number of outbreaks



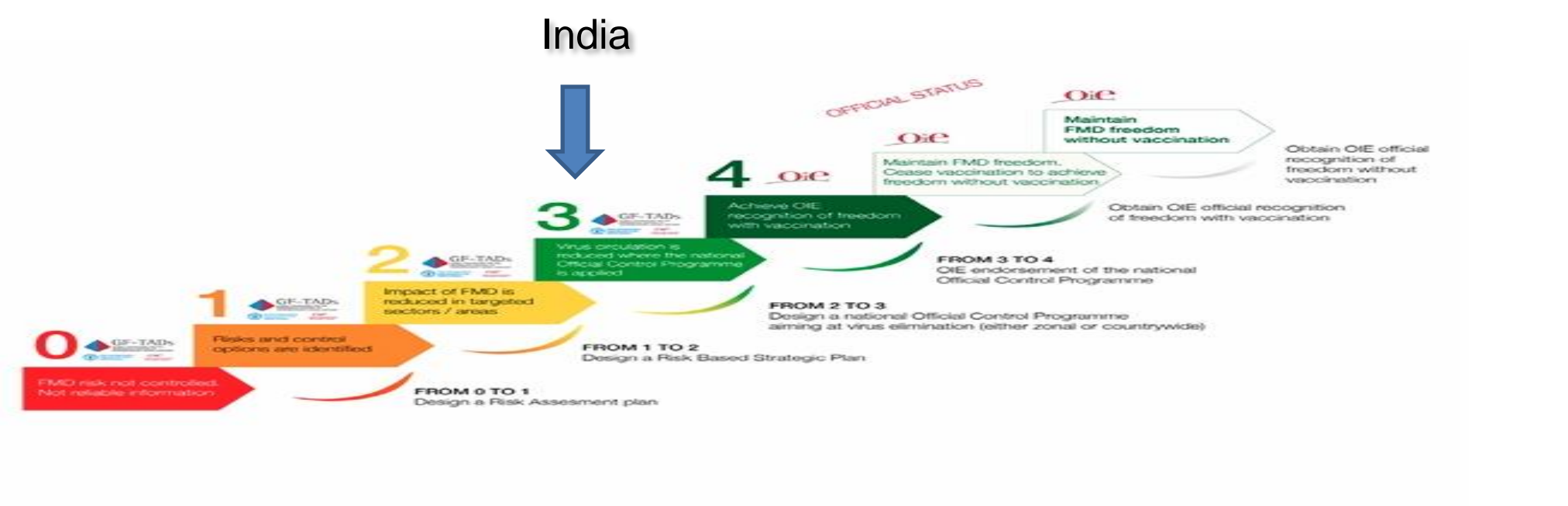
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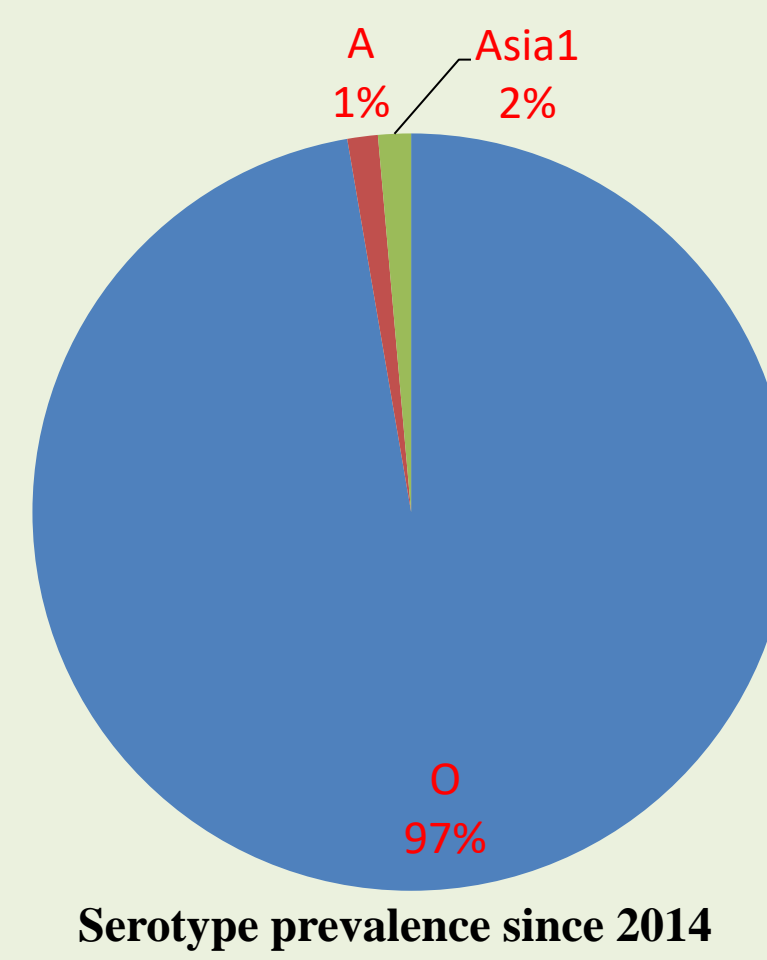
Outbreaks reported mostly in India in cattle in 2023 (WAHIS report 2023), sporadic cases were seen in buffalo and swine in Kerala.

Virus type- FMD serotype O, A, Asia -1

Source: Incubating and clinically affected animals, All secretions and excretions from acutely infected animals, Meat and by-products in which pH has remained above 6.0 and Carriers.



Virus circulation is reduced where the national Official Control Program is applied- PCP stage moved to stage 3



2023 outbreak Reports

| Total outbreaks | Species | Susceptible | Cases | Deaths |
|-----------------|---------|-------------|-------|--------|
| 44 | Cattle | 217600 | 2741 | 183 |
| | Buffalo | 7057 | 13 | 0 |
| | Pig | 4305 | 9 | 0 |

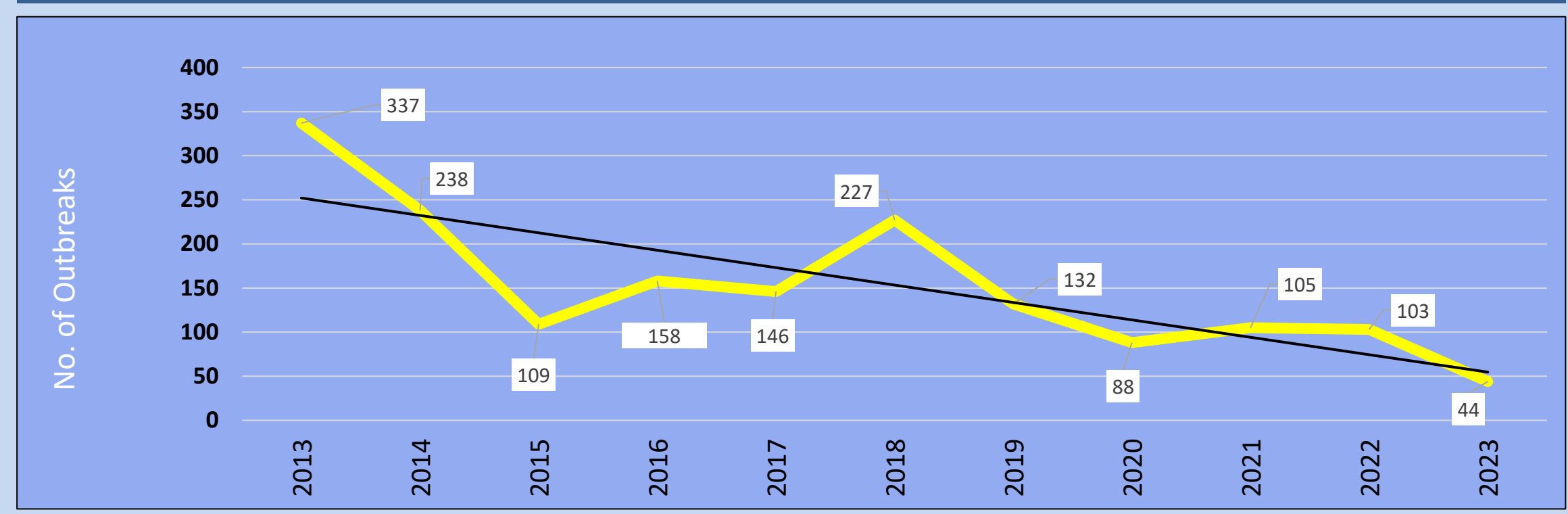
Factors affecting the success of vaccination

| Good quality vaccines | Cold chain infrastructure | Ground level implementation | Post-vaccination monitoring |
|---|---|---|---|
| Central procurement & supply of quality vaccines after QC testing | Funding of procurement of cold-chain infrastructure till the last miles | Campaign mode implementation Monitoring progress of on-ground vaccination through digital recording | Evaluating herd immunity status through sero-surveillance and sero-monitoring regularly as per plan |

Critical success factors for ensuring effective immunity & reduced disease prevalence among animals

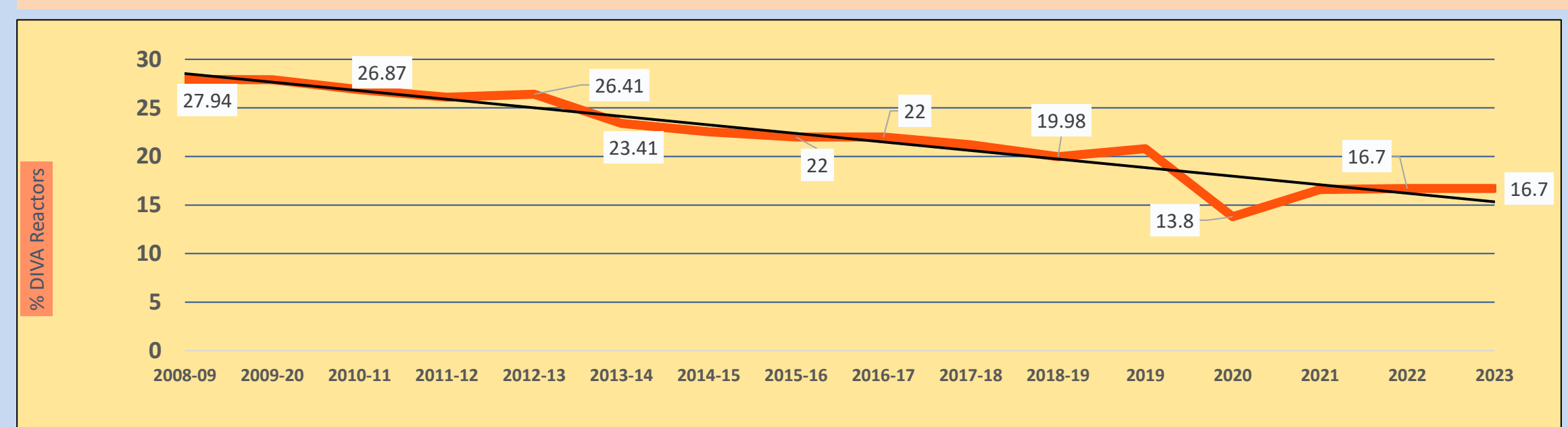
- Funding:** National Animal Disease Control Programme for FMD and Brucellosis (NADCP) is a Central Sector Scheme where 100% of funds is provided by the Central Government covering bovine population and initiated in small ruminants.
- Vaccine procurement:** The FMD vaccine is procured centrally, the uniform price was discovered through tender process pan-India and supplied to district-level.
- Quality Control:** The manufacturer test all the batches and submit a Certificate of Analysis for each batch. 1 out of every 5 batches of the FMD vaccine is tested for quality criteria at designated laboratories.
- Funding:** 100% Central assistance provided for logistics including awareness, accessories, cold chain, remuneration for vaccinators etc.
- Scheduling for campaign mode:** Schedule is prepared in a campaign mode to complete one round of vaccination in 45-60 days and start the next round within next 6 months.
- Digitalization:** All the animals are registered, and vaccination data is captured on Bharat Pashudhan Portal.
- Sero-monitoring and Sero-surveillance plan:** For active surveillance of the disease, ICAR-NIVEDI prepares Sero-monitoring and Sero-surveillance plan for all States and analyse the data.

Decreasing number of FMD Outbreaks



Regular vac results in reduced virus circulation & outbreaks

Decreasing prevalence of FMD Infection



DIVA- Differentiating Vaccinated from Infected Animals

Changes/ highlights in the implementation of FMD Prevention and Control activities from 2022 till date

Vaccination coverage is increased- over 60 cr animals are vaccinated after 2022
Bharat Pashudhan Portal- cloud based database and monitoring.
Small ruminants are added in vaccination coverage in pastoral flocks and also used as sentinels to see the prevalence

FMD PREVENTION & CONTROL MEASURES

CHALLENGES AND THREATS

CONSTRAINTS & SOLUTIONS



- Manufacturing capacity of FMD vaccines - production vis a vis demand
- Augment of manpower - 537 million
- Diverse geographies and difficult terrains
- Smallholder livestock farmers



SOLUTION

- Technical support to manufacturers from national and WRL (World Reference Laboratory for Foot-and-Mouth Disease, The Pirbright Institute)
- Public-private partnership to improve doorstep animal husbandry services - Mobile veterinary units
- IT solutions for planning scheduling and execution of on ground vaccination
- Collaboration with grassroots organizations
- Consistent community awareness, engagement and outreach activities

