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# PPR Eradication and Vaccination Framework Strategies

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GLOBAL FRAMEWORK FOR THE  
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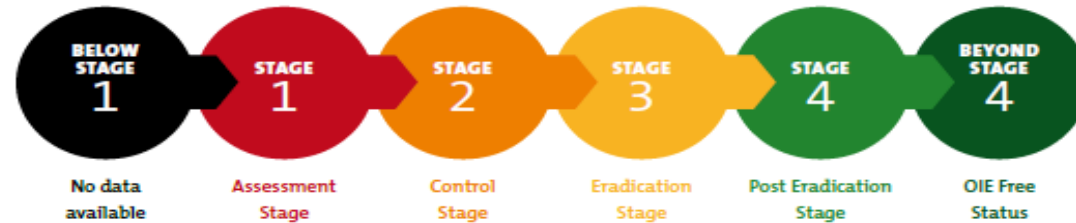
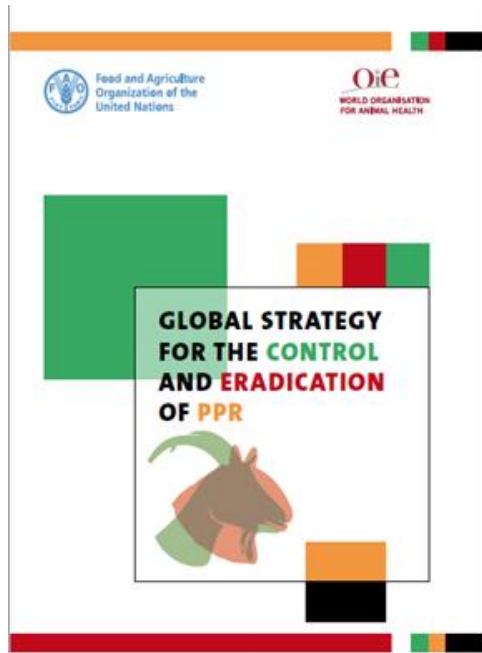


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# PPR-GLOBAL ERADICATION STRATEGY

FAO and WOAH Convened Meeting on PPR (April, 2015):

Adoption of a STRATEGY for GLOBAL **Control** and **Eradiation** of PPR by **YEAR 2030**



## Stepwise Progressive Pathway for the PPR Global Eradication

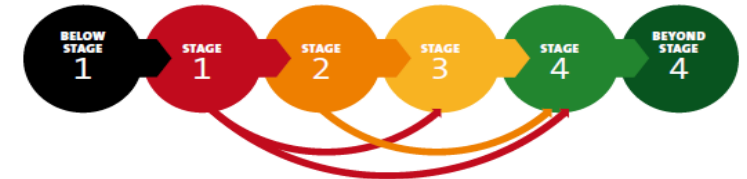
From

**Stade 1 – Country PPR  
Epidemiological Situation  
Evaluation**

to

Stade 4 – No more virus circulation at zonal/or National Level, then self declaration to the OIE for PPR official free status request.

With the possibility of a Fast-track procedure across the four Stages to move directly forward to two or even three Stages.



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# PPR-GLOBAL ERADICATION STRATEGY

|       | <b>STAGE 1</b><br><b>Assessment Stage</b>             | <b>STAGE 2</b><br><b>Control Stage</b>                                                     | <b>STAGE 3</b><br><b>Eradication Stage</b>                   | <b>STAGE 4</b><br><b>Post-eradication Stage</b>                           |
|-------|-------------------------------------------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------------------------------------|
| FOCUS | To gain a better understanding on the presence of PPR | To control both PPR clinical disease and infection in a specific zone or production system | To achieve PPR eradication throughout the national territory | To build evidence that there is no clinical disease nor virus circulation |

**Focuses According to the Stage**

**VACCINATION  
CAMPAIGN**

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CAMPAIGN**

**Stepwise Progressive Pathway for the PPR Global Eradication**



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# PPR-GLOBAL ERADICATION STRATEGY

## GENERAL VACCINATION PROTOCOL

- **A Good PPR vaccine** protects sheep and goats for **at least 3-5 years after a Single SHOT.**

But

- **Proposed PPR vaccination protocol in PPR-GCES**

### General Principle:

- Vaccination of animals during two successive years
- Followed by the vaccination of new animals (Age > 3 months old) in the herd for one or two more successive years
- **Conducts Vaccination to obtain a Herd Immunity Rate (HIR) of at least 70% for about 3 Years in order to achieve virus elimination from the region.**



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## YEAR 2015

ADOPTION OF PPR-GCES



## Year 2025: Results

- GS/RES-19/PPR Status: **MEMBERS  
RECOGNIZED FREE FROM PPR (57 + 1 zone),  
All on Historical basis!!!!**

- About 20 countries in Stage 3 (according to GCES timeline 39 countries were expected to in Stage 3). Disease well controlled in some countries through Important Vaccination Campaigns (Control doesn't mean Eradication)



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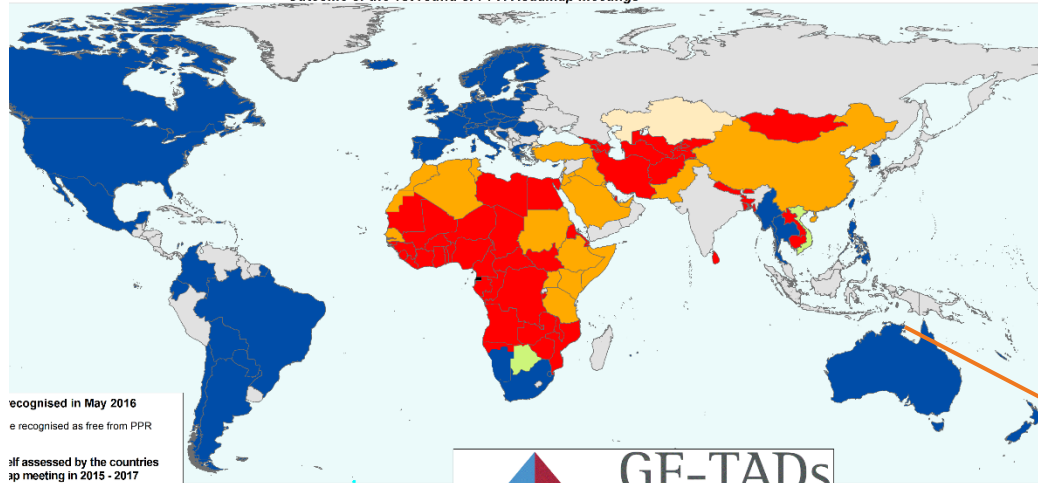
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## Peste des petits ruminants global situation up to 30 April 2017

OIE official PPR free status and PPR Global Control and Eradication Strategy (GCES):  
*Outcome of the 1st round of PPR Roadmap meetings*



### WOAH official status

Blue box: Members and zone recognised as free from PPR as of May 2024

PPR GCES stages as self assessed by the countries during their last PPR regional/epizone roadmap/consultation meeting (2017 - 2024)

- Green box: 4
- Yellow box: 3
- Orange box: 2
- Red box: 1
- Black box: Below 1

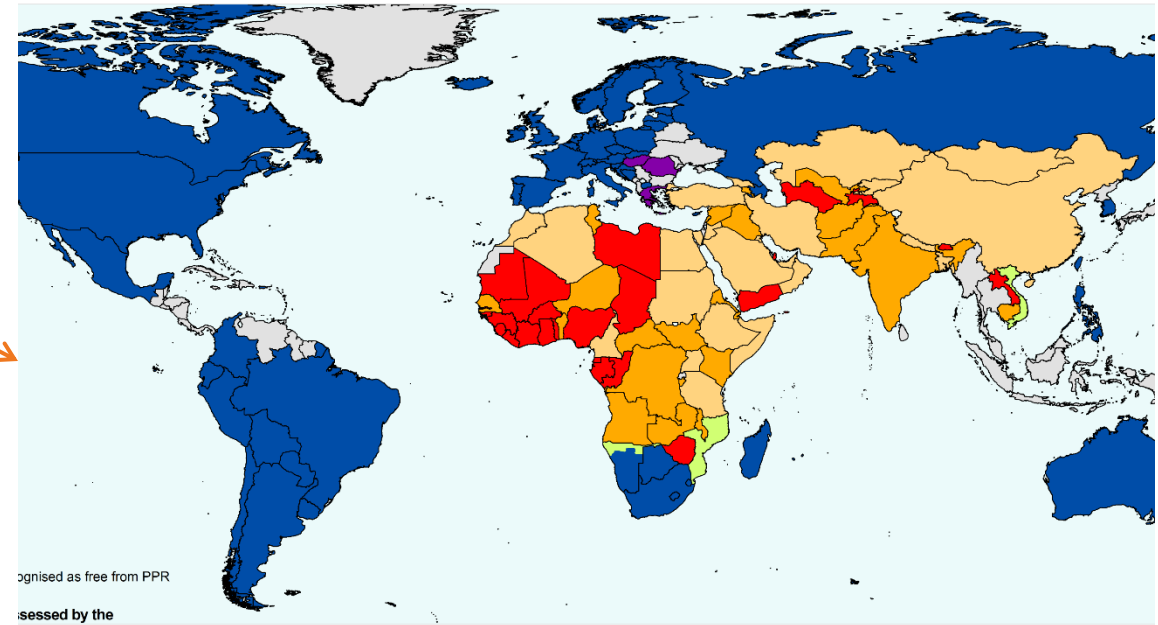
Grey box: Countries and zones without an official PPR status and for which PPR-GCES stages have not been assessed

Purple box: Suspension of PPR free status

# PPR-GEP RESULT

## Peste des petits ruminants global situation up to May 2025

WOAH official PPR free status and PPR Global Control and Eradication Strategy (GCES)



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## Principles for Infectious Disease Eradication

(=Permanent reduction to Zero of the worldwide incidence of infection caused by a specific agent as a result of deliberate efforts and intervention measures are no longer needed)

### Indicators for Disease Eradicability

**I) BIOLOGICAL**  
Factors: limited hosts, No Intermediate (Vector) for Pathogen Transmission, Efficient Vaccine, Specific and reliable diagnostic test)

**II) Economic Considerations**

**III) Good Infrastructure**

**IV) Clear and Good Strategy**

**V) Societal and Political Commitments**

### RINDERPEST

I) Cattle and Buffaloes mainly (small ruminants, pigs in Asia, wildlife not important for disease maintenance), very efficient vaccine (lifelong immunity), good diagnostic tests developed during the programme),

II) Important

III) Infrastructure improved during the GREP

IV) Clear and Good Strategy developed

V) Societal and Political Commitments: Very strong and allowed the obtention of required financial and human Resources available

### PPR

I) sheep and goats mainly (wildlife certainly not important in disease maintenance, very efficient vaccine (lifelong immunity), specific and reliable diagnostic tests available before PPR-GCES

II) Economic considerations: very important even more than RP (2 Md animals and about **2,5-3 Billions USD losses/year**)

III) Infrastructure good (Benefit from GREP)

IV) Lessons learnt from GREP were used to develop PPR-GCES. So PPR-GCES better elaborated than GREP

V) **Societal and Political Commitments: Not Enough as For GREP**



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# PPR GEP IMPLEMENTATION

## ISSUES:

- Countries are mostly carrying out individual efforts while the whole exercise of eradication demands considerable collaboration and coordination ( re-emergency of the disease)
- Control versus eradication (no plan to exit out of vaccination activities )
- Investment/Achievements easily diluted (no contingency plans, no plan for post vaccination success)
  - Inadequate stakeholder engagement and resource mobilization
    - ✓ limited domestic fund/budget allocation
    - ✓ Backing mainly on external Funding!!!!
  - ✓ Efficient and effective utilization of limited available resources





## The WAY FORWARD:

To PLAN and ADAPT the PPR ERADICATION PROGRAMME to the ACTUAL FINANCIAL RESOURCES.

- **The Suggested Framework is structured as follows:**
- **Funding Allocation.** Ensure the allocation of adequate financial resources, regardless of their origin – whether national and or external- to support the eradication programme activities.
- **TARGET and SELECT Area Compatible with ACTUAL FINANCIAL RESSOURCES:** Utilize the secured funding to identify specific areas for vaccination with the goal of achieving a herd immunity rate exceeding 80% within a short timeframe of 1 to 2 years, and no longer than 3 years. This approach is designated to eliminate disease within the targeted zones, depending on the vaccination period constraints.
- **Criteria for Selection.** The selection of areas for vaccination should be based on several factors including the number of animals to be vaccinated, relevant epidemiological data, animal movement patterns, and other risk parameters. Notably, transhumance is a significant risk factor and should be prioritized in the decision-making process.





## Suggested PPR Eradication Strategy Framework for Stage 3/4 of GCES

Number of vaccination rounds  
depending on animal husbandry  
context and also PVM

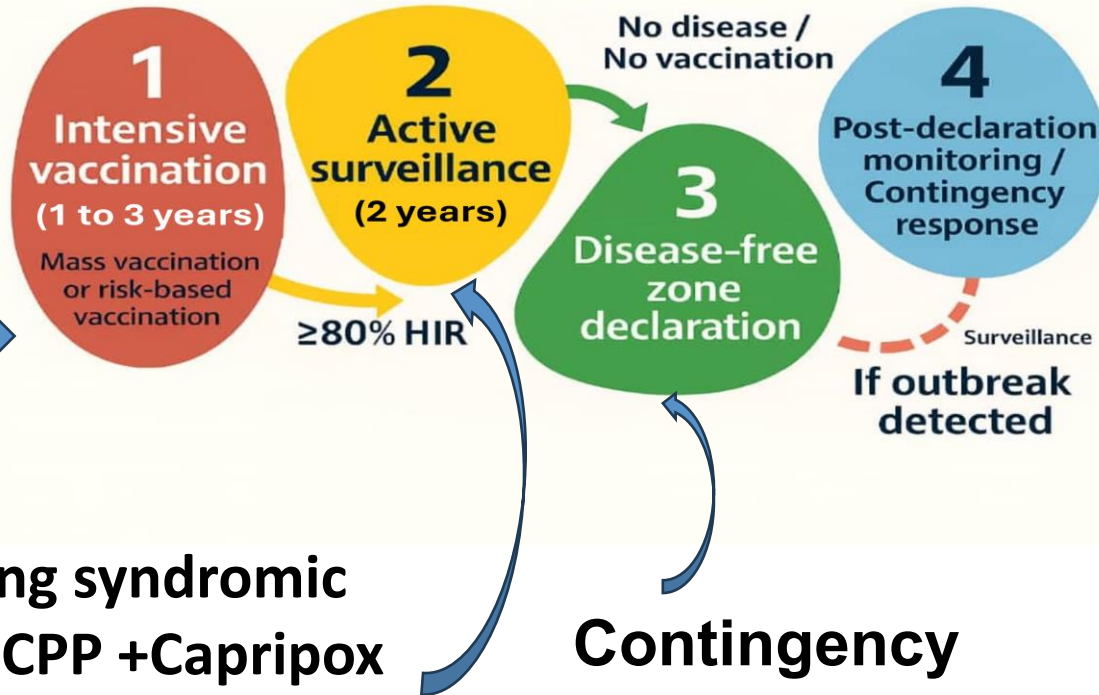
Planification according VS capability  
(public+private+NGOs)

Integrated Disease Control: PPR +  
other SM Priority Diseases .

PVM seromonitoring 1-3  
months after vaccination)

Surveillance including syndromic  
surveillance: PPR +CCPP +Capripox  
+Pasteurella PCR test available

### PPR Eradication Strategy – Phased Approach



Contingency  
Plan available



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# PPR Vaccination Strategy:

## Risk-based vaccination Versus Mass Vaccination

### Risk-based vaccination:

Cheaper than mass vaccination but need to develop good Risk map based on Main PPR Drivers :

animal movements (trade and transhumance, markets, grazing areas, past outbreaks, etc)....

### Mass Vaccination:

More expensive than Risk-based vaccination but preferable for small countries and not important number of target animal populations



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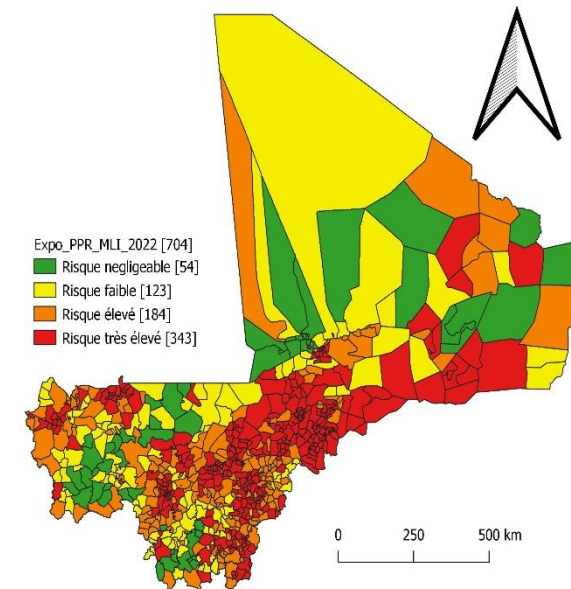


## PPR VACCINATION AND SURVEILLANCE ACTIVITIES

### PPR DRIVERS to be considered for PPR Surveillance/Vaccination Risk Mapping:

- **Virus Transmission of the virus through close contact (markets, religious festivals, grazing areas are important for virus spread)**
- **Animal movement: a main driver of the virus spread (transhumance and trade)**
- **PPR: seasonal and cyclic disease (every 2 to 3 years in an endemic area, characteristic linked to the small ruminant population turnover rate: about 35% event 50 in humid areas), lambing/kidding periods**

Carte : Risque d'exposition et diffusion de la PPR au Mali



Source : DNSV / LCV / Novembre 2022

**Number of Outbreaks Should not be the only Criteria for Risk-based Vaccination/Surveillance**

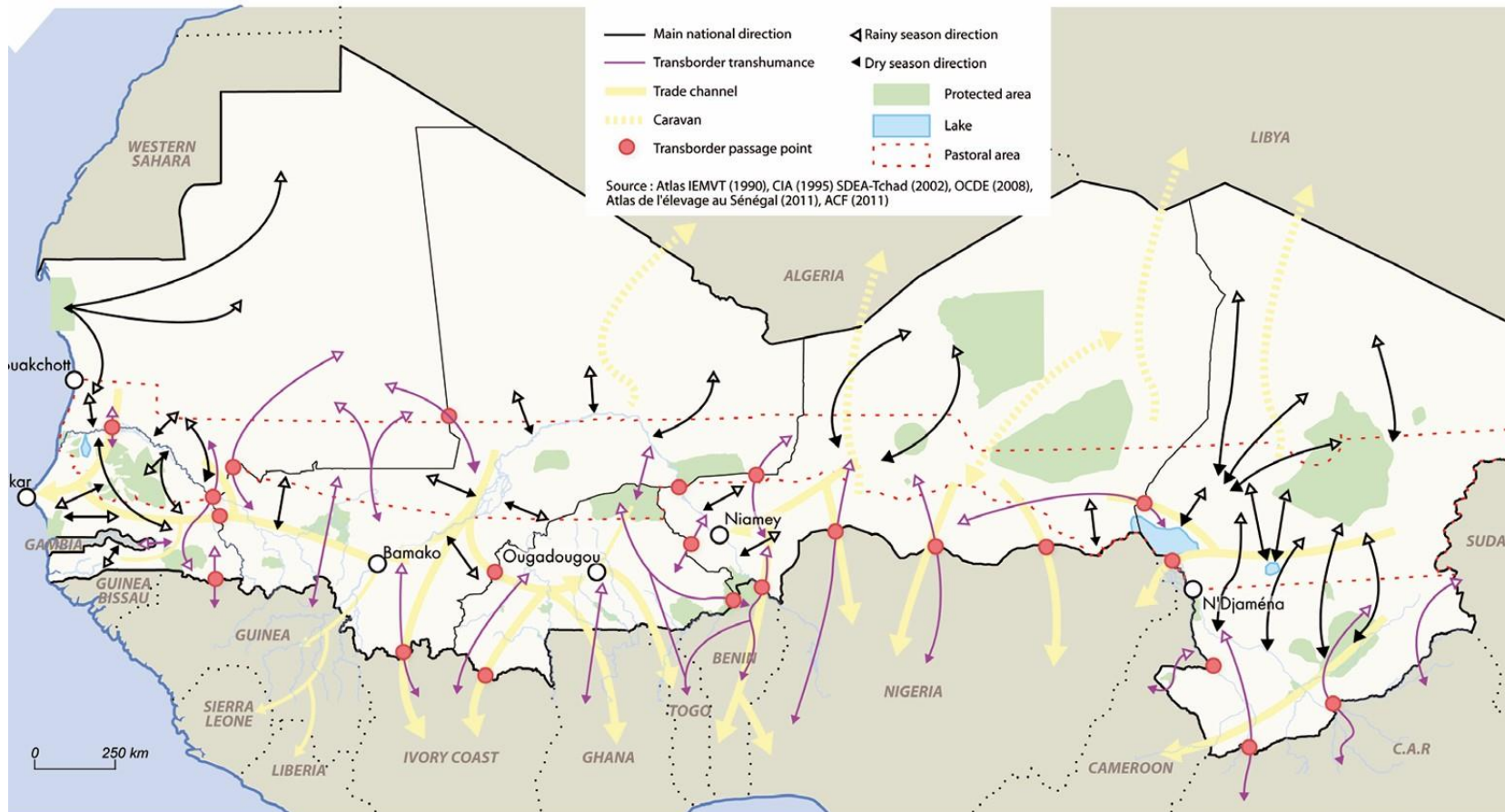


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# National and International Livestock Movement in Africa Sahelian



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## Suggested PPR Eradication Strategy Framework for Stage 3/4 of GCES

- **Post Cleaning Surveillance.** Once a zone has been “cleaned”, it is imperative to maintain active surveillance. A robust contingency plan should be established to facilitate rapid response actions in case of the re-introduction of the disease within a farm or village. **Given the high turnover of sheep and goats, it is crucial to maintain surveillance vigilance, as herd immunity can be diluted very quickly, leading to the emergence of a population susceptible to PPR. However, this potential risk should not be a cause for concern, as it can be effectively managed with a well-prepared contingency plan. This strategy is more cost-effective than continuous vaccination aimed at perpetually maintaining high immunity levels.**
- **Expansion to New Zones.** The successful management of one zone should not hinder the selection of additional for disease eradication. Ideally, new zones selected for vaccination should serve as buffer zones to protect and safeguard previously “clean” area. Prior to initiating vaccination in new zone, a comprehensive contingency plan must be developed and implemented to ensure a quick response if needed.
- **Quarantine Measures.** Quarantine zones must be established at international borders to control the movement of animals entering disease-free areas. All necessary measures should be taken to safeguard the achievements of previously vaccinated zones.





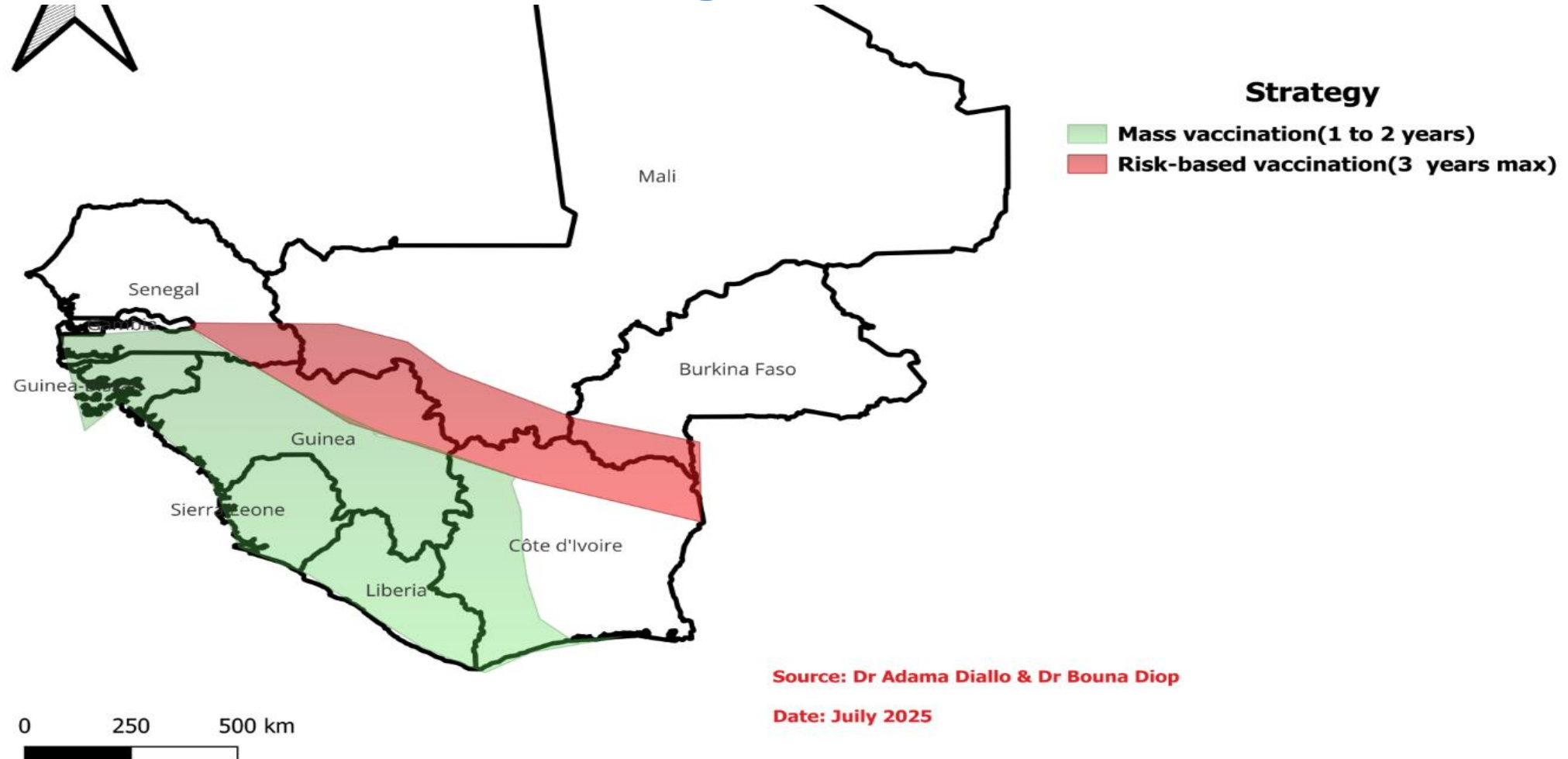
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# PPR Eradication Strategy

## A Suggested PPR VACCINATION AND SURVEILLANCE in Mano River Region in West Africa





## Suggested PPR Eradication Strategy Framework in Stage 2/3 of GCES Pathway

- Prior to the commencement of the vaccination campaign, it is essential to order and ensure the availability of all necessary test kits, along with the appropriate quantity of vaccine doses.
- The vaccine to be utilized must meet high-quality standards and be certified by an independent institution (/AU-PANVAC).





## PPR ERADICATION STRATEGY For PPR ENDEMIC COUNTRIES:

=

## INTENSIVE VACCINATION STRATEGY (GUERRILLA STRATEGY)

**Through Rapid, High-coverage Vaccination within small population units.** This approach should incorporate continuous real-time surveillance and risk-based movement management to circumvent the challenges associated with prolonged campaigns.

**By executing swift interventions and promptly transitioning to new areas, countries can sustain stakeholder engagement while minimizing costs.**



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# ORGANISATION of VACCINATION CAMPAIGNS

- Vaccine to be used: **Vaccine of High Quality with Independent Institution Certification**
- Maintenance of the vaccine in **Effective Cold Chain from the vaccine Production Laboratory to its delivery in the field**
- Information and Sensitization of Farmers for **adoption of the Campaigns and Mobilization**
- Organisation of the Vaccination Campaign to be implemented by **Public Services, Private Sectors including Community Animal Health Workers and NGOs.**
- **YEARLY Evaluation of Vaccination Campaigns**



- **Regional Collaboration and Activities Implementation Coordination with Exchanges of Information**



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Focuses According to the Stage

Surveillance

Surveillance

VACCINATION  
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surveillance

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**A PICTURE from  
TANZANIA (2010):**

**A vaccinated flock  
composed by about  
600 GOATS**

# THANKS to ALL

- **A PICTURE from BURUNDI (2019): A  
WOMAN with her Vaccinated and Safe  
GOAT**



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