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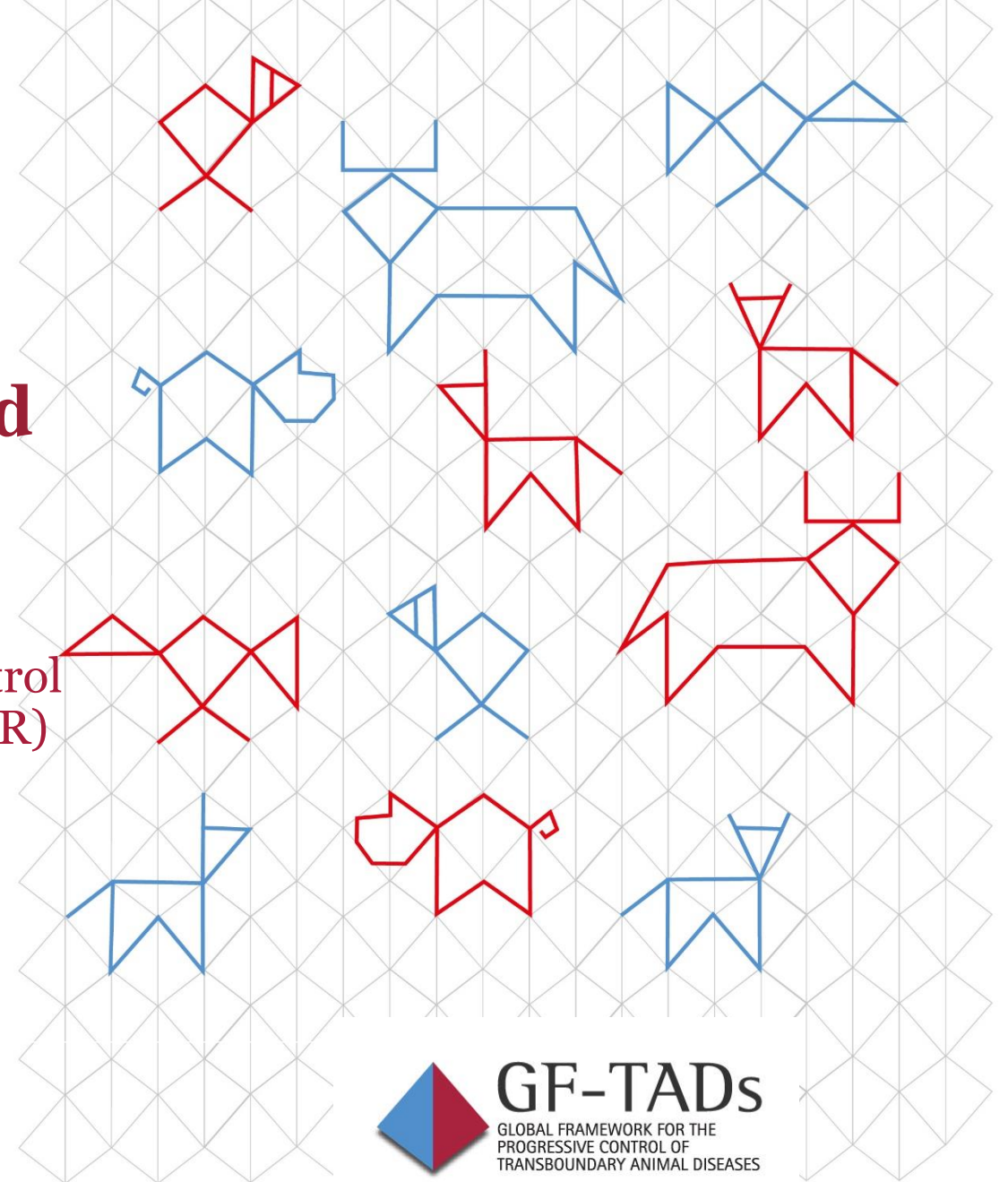


# PPR situation in the Africa region and the challenges in its Control and Eradication

Virtual Regional training workshop on  
The OIE procedures for the endorsement of official control  
programmes concerning Peste des petits ruminants (PPR)  
and dog-mediated rabies

4 - 6 May 2022

Simon Kihu



**GF-TADs**

GLOBAL FRAMEWORK FOR THE  
PROGRESSIVE CONTROL OF  
TRANSBOUNDARY ANIMAL DISEASES



Food and Agriculture  
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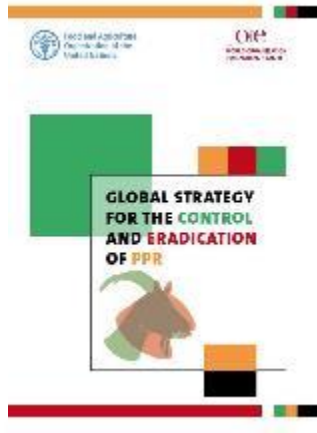


WORLD ORGANISATION  
FOR ANIMAL HEALTH

# Building consensus

By gathering efforts towards the eradication

April 2015,  
Abidjan, Côte  
d'Ivoire



Launch of Global Strategy for the Control and Eradication of PPR



October 2016



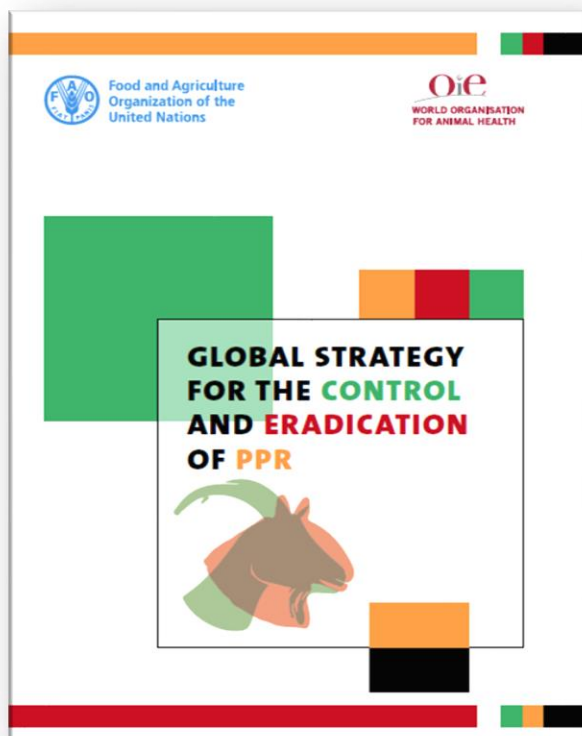
Launch of PPR Global Eradication Programme



September 2018



# PPR Control and Eradication Strategy (PPR GCES)



## ■ Objectives:

- Eradicate PPR by 2030
- Reinforce Veterinary Services
- Reduce the impact of other major infectious diseases of small ruminants

... and then contributing to

- Fighting rural poverty
- Ensuring food security and nutrition
- Strengthening resilience and national economies

... and achieving the **SDGs**.

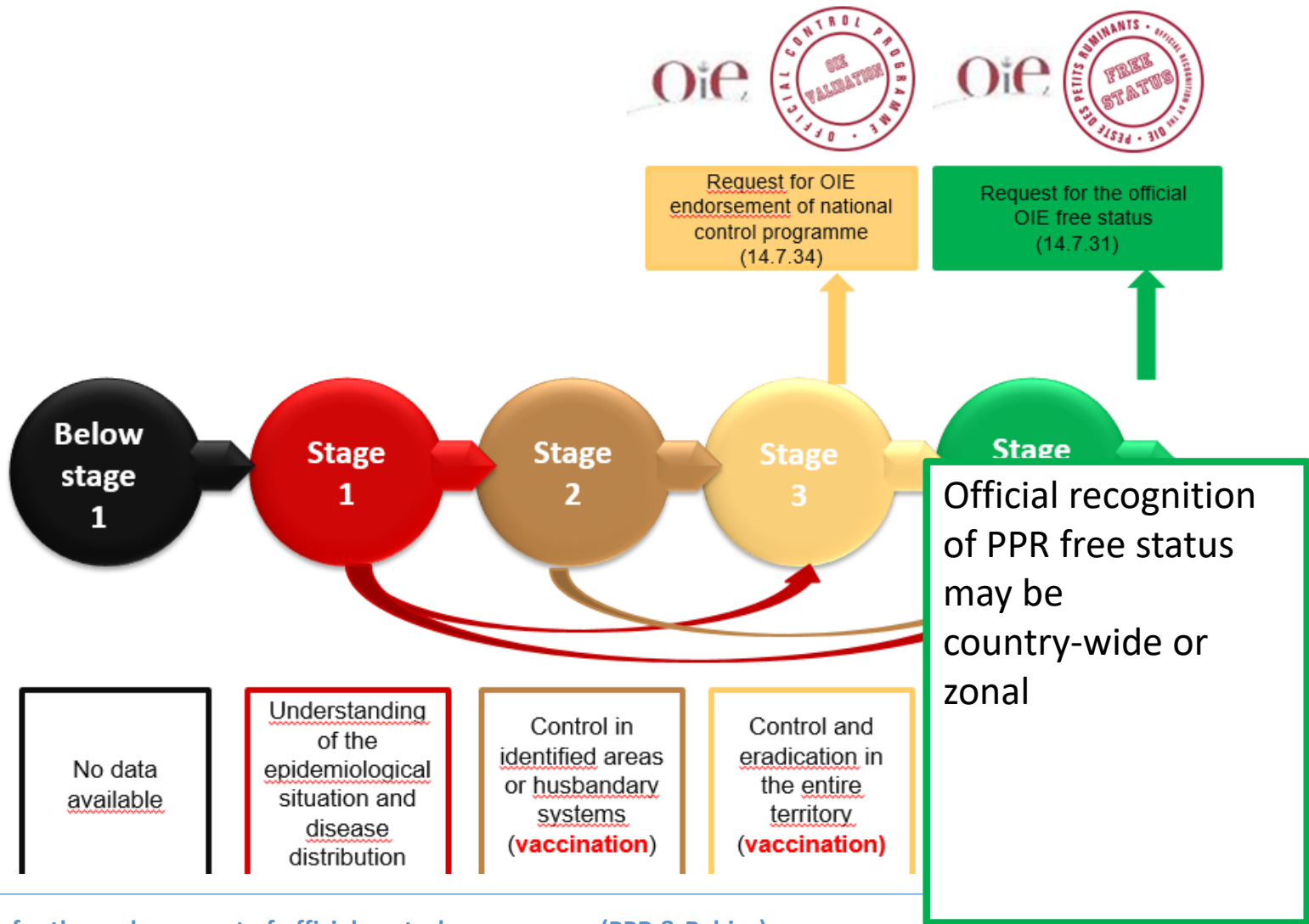
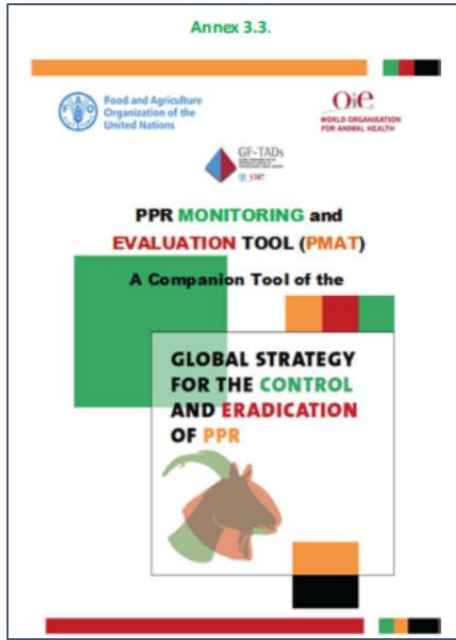


# PPR Global Eradication Programme (GEP I Framework)

## 4 Components

Component 1	Component 2	Component 3	Component 4
<p><b>Promoting an enabling environment and reinforcing veterinary capacities:</b></p> <ul style="list-style-type: none"> <li>• Stakeholder awareness and engagement</li> <li>• Preparation of PPR Strategic and Technical plans (national / regional)</li> <li>• Legal framework updated</li> <li>• Stronger VS in support of PPR eradication</li> </ul>	<p><b>Support to the diagnostic and surveillance systems:</b></p> <ul style="list-style-type: none"> <li>• Assessment of the epidemiological situation</li> <li>• Strengthening of surveillance systems and laboratory capacities</li> <li>• Strengthening regional epidemiology and laboratory networks</li> </ul>	<p><b>Measures supporting PPR Eradication:</b></p> <ul style="list-style-type: none"> <li>• Vaccination and other preventive measures: <i>Around 1.5 billion sheep and goats to be vaccinated</i></li> <li>• Demonstration of PPR freedom</li> <li>• Control of other small ruminant diseases in support to PPR eradication</li> </ul>	<p><b>Coordination and Management:</b></p> <ul style="list-style-type: none"> <li>• Country level: national committees for consultation and engagement</li> <li>• Regional level: Advisory Group, epidemiology and laboratory Networks,</li> <li>• Global level: PPR Secretariat, PPR Advisory Committee, PPR GREN</li> </ul>

# Step-wise approach to eradication at national level



Progressive  
Monitoring and  
Assessment  
Tool

# Key Technical Elements of each Stage



**Legal framework**



**Surveillance**



**Diagnostic**



**Prevention and Control**



**Stakeholder  
involvement**

## PPR Eradication

- PPR vaccines induce life-long protective immunity in vaccinated animals after a single dose, currently Thermo-tolerant vaccines are available.
- Currently DIVA (**D**ifferentiation of **I**nfected from **V**accinated **A**nimals) vaccines and diagnostic test technology has been developed, however this has not been deployed commercially in the field.
- **Key requirements for vaccination:**
  - Epidemiologically informed (according to epistemics and hotspots)
  - Vaccines are quality assured
  - Cold chain is maintained
  - Campaigns are accompanied by advocacy and sensitisation of farmers
  - Vaccinators are trained
  - Mechanism for identifying vaccinated animals/flocks is in place
  - Vaccination campaigns are evaluated (and strategies adapted accordingly)
    - Pre- and Post- vaccination evaluation of antibody levels to assess seroconversion rates



**Legal framework**



**Surveillance**



**Diagnostic**



**Prevention and Control**

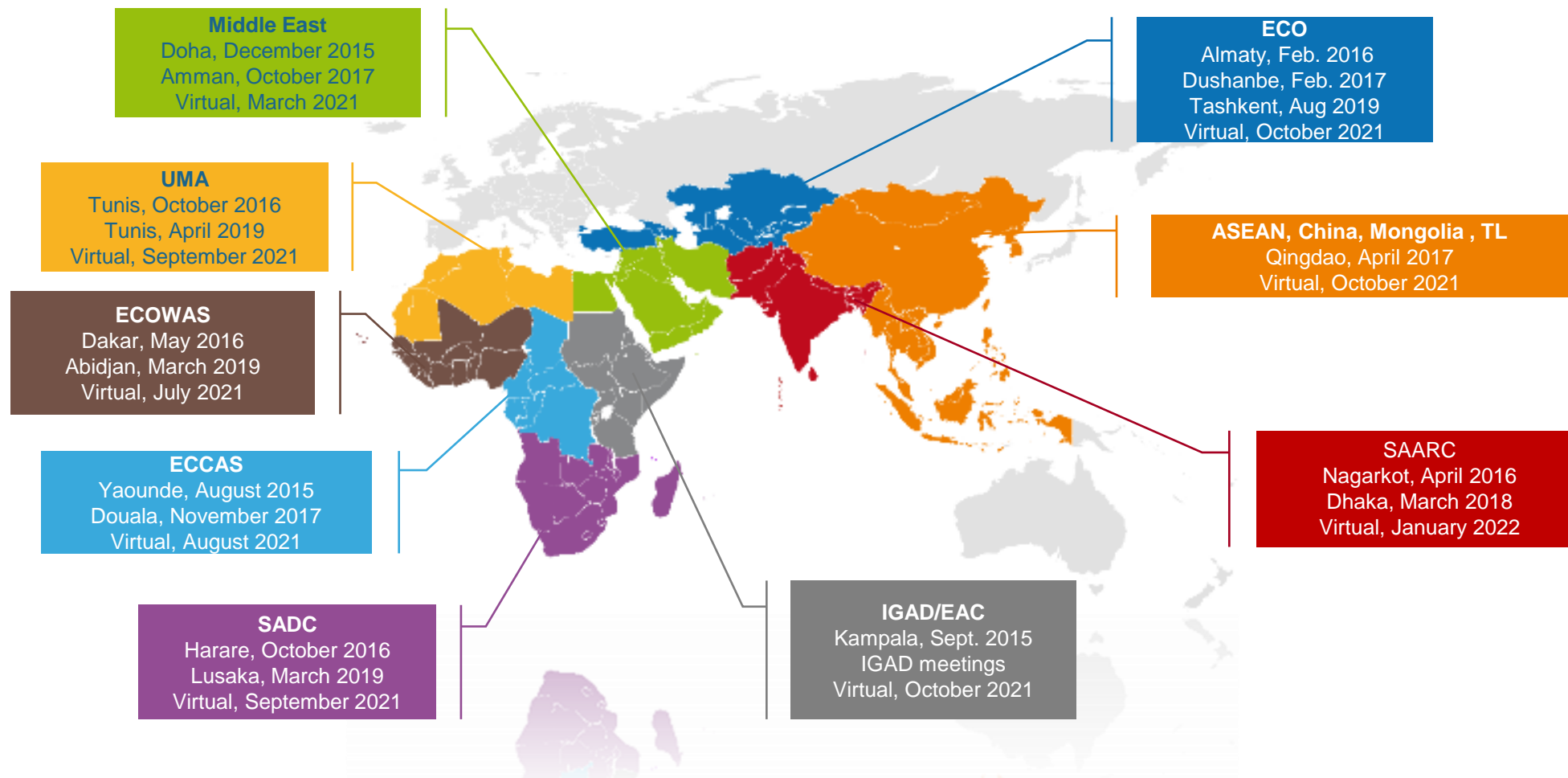


**Stakeholder involvement**

- **Effective control ALSO requires**

Building capacity for PPR diagnosis also builds capacity for diagnosis and control of other TADs

# PPR Regional Roadmap meetings



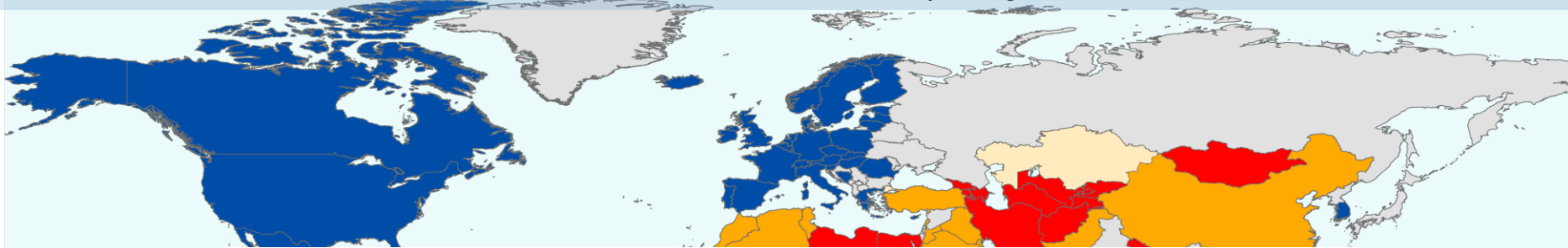


# PPR global situation

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

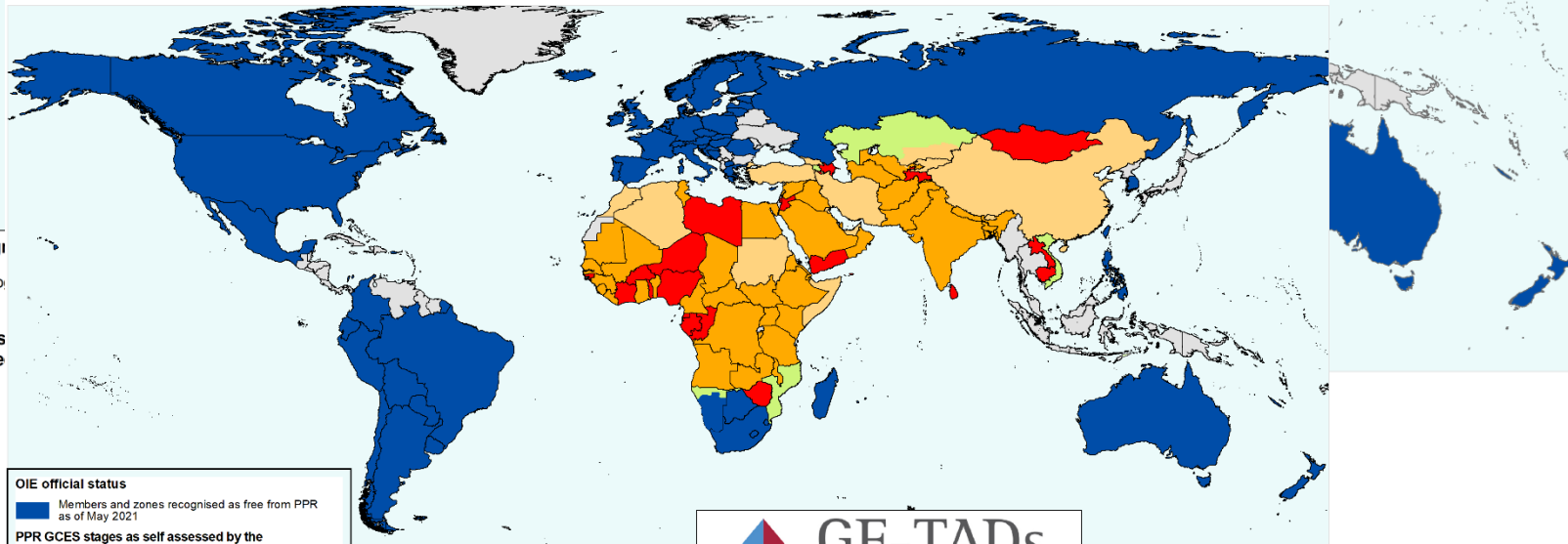
OIE official PPR free status and PPR Global Control and Eradication Strategy (GCES):

*Outcome of the 1st round of PPR Roadmap meetings*



## Peste des petits ruminants global situation up to January 2022

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



OIE official status as recognized

Members and zones recognized as free from PPR as of May 2021

PPR GCES stages as self assessed during their 1st Roadmap meeting

4

3

2

1

Below 1

Countries and zones with no official PPR status and which PPR-GCES stages are not self-assessed

OIE official status

Members and zones recognized as free from PPR as of May 2021

PPR GCES stages as self assessed by the countries during their last PPR regional/epizootic roadmap/consultation meeting (2017 - 2021)

4

3

2

1

Below 1

Countries and zones without an official PPR status and which PPR-GCES stages are not self-assessed





## PPR Situation: Outcome regional consultation meetings in Africa in 2021

### PPR Epidemiological situation

- PPR is endemic throughout Africa except for Cape Verde, Sao Tome and Principe, Malawi, Mozambique, Zambia, and Zimbabwe with no PPR outbreaks reported to date. Comoros, Djibouti, Eritrea, and Morocco have not recent since 2020
- Six Southern Africa countries (Botswana, Eswatini, Lesotho, Madagascar, Mauritius and South Africa) have OIE PPR free status recognition and 1 country (Namibia) has a PPR free Zone.

### Status of PPR Strategic frameworks

- **ECOWAS:** Regional Strategy developed and validated by stakeholders.
- **ECCAS:** Strategy developed by CEBEVIRHA but not yet endorsed by ECCAS
- **SADC:** Regional PPR strategy developed and translated to Portuguese for validation by all Member states.
- **IGAD/EAC, IGAD** has a regional PPR Strategy aligned to the global GCES and the Pan-African PPR Control and Eradication Strategy.
- **UMA:** Draft regional strategy developed but not formally endorsed.



## PPR Situation: Outcome regional consultation meetings in Africa in 2021

### **Status of PPR Strategic frameworks - Country PPR Control and Eradication Strategies:**

- Member States of ECOWAS, ECCAS, EAC/IGAD, Northern Africa and Egypt have PPR control and eradication strategies
- However, none ECCAS participating countries PPR National Strategic Plans (NSP) is formally endorsed by relevant national authorities.
- National PPR Coordination Committees with defined modus operandi and tasks were in place in few countries
- SADC: PPR National strategic plans developed and validated in Comoros, DRC, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Tanzania, Zambia and Zimbabwe. Seychelles has a draft Strategic plan that awaits endorsement and adoption by stakeholders. Angola, Botswana, Eswatini, Madagascar and South Africa have not developed PPR strategic Plans. Member countries with PPR free status may consider developing a PPR contingency plans



## PPR Situation: Outcome regional consultation meetings in Africa in 2021

### **Diagnostic Capabilities and facilities:**

- Real time PCR capability is in a few countries.
- Variable PPR diagnostic capabilities of regional/district laboratories within countries
- Only a few national laboratories across the regions have capability for gene sequencing and analysis
- Inadequate supplies of diagnostic reagents due to lack of funds and/or procurement procedures
- Training of laboratory staff is a continuous need due to high staff turnovers.
- Inadequate training of field staff in PPR recognition, sample collection, transportation and disease reporting



## PPR Situation: Outcome regional consultation meetings in Africa in 2021

### Surveillance:

- No uniformity in the surveillance systems within regions but mobile phone applications are used in some countries
- Limited surveillance in wildlife at the livestock/wildlife interface in all the regions due to limited expertise, costs, logistics and inadequate partnerships with wildlife institutions.
- Stakeholder concerns on the effects of PPR in populations of different susceptible wildlife populations particularly endangered species
- Limited surveillance in other atypical hosts of PPR virus but some studies conducted in limited number of species and countries



## PPR Situation: Outcome regional consultation meetings in Africa in 2021

### Prevention and Control:

- Many countries have institutionalized annual mass vaccination activities that are not risk-based.
- Vaccination coverage varies in the different countries from very low to more than 50% of the populations but no indications of the criteria used to select the animals for vaccination.
- In some countries, sero-monitoring of vaccinated populations not always carried out even where kits are available.
- Inadequate vaccine supplies and concerns of poor vaccine quality by some countries
- Ad-hoc vaccine orders make it difficult for vaccine manufacturers to plan for availability of sufficient
- Prolonged presence of PPR erodes stakeholders' interest and commitment to control and eradication
- Porous borders with uncontrollable cross-border animal movements
- Inaccessible areas due to remoteness, difficult terrains and insecurity;
- Religious practices and festivals enhance marketing of sick animals unknowingly
- Lack of animal identification and traceability systems in many countries across the regions



## PPR Situation: Outcome regional consultation meetings in Africa in 2021

### Legal frameworks:

- Variable legal frameworks to support PPR eradication with PPR is generally a legally notifiable disease in most countries, however, some countries lack appropriate legal provisions for PPR.
- Lack of legal provisions for engagement of private animal health service providers (veterinarians, vet paraprofessionals and CAHWs) in public good services in many countries.

### Stakeholders:

- Variable successes with stakeholder engagement and support across the regions from weak to moderately strong
- Weaknesses in collaboration and coordination with wildlife institutions in some countries.
- Weaknesses in engagement of private veterinarians and veterinary para-professionals in PPR surveillance and control in some regions.



# PPR Situation: Outcome regional consultation meetings in Africa in 2021

## Resource mobilisation:

- Resource mobilization is a major issue across all the regions except for a few countries e.g. Algeria, Morocco, Niger, Benin in Africa,
- Inadequate allocation of funds in the national budgets of most Countries to fully support the implementation of the National Strategic Plans
- Donor support for some national and regional initiatives but mostly targeted and insufficient for effectively coordinated eradication programmes.

## Regional coordination

- All the regions have variations of regional coordination mechanisms including RAGs, CVO's networks, Epidemiology networks, laboratory networks, PPR roadmap meetings, bilateral or multilateral MoUs between Member States.
- Coordination structures vary from region to region: Some regions have established institutions with sufficient personnel to support coordination (ECOWAS, IGAD, SADC)

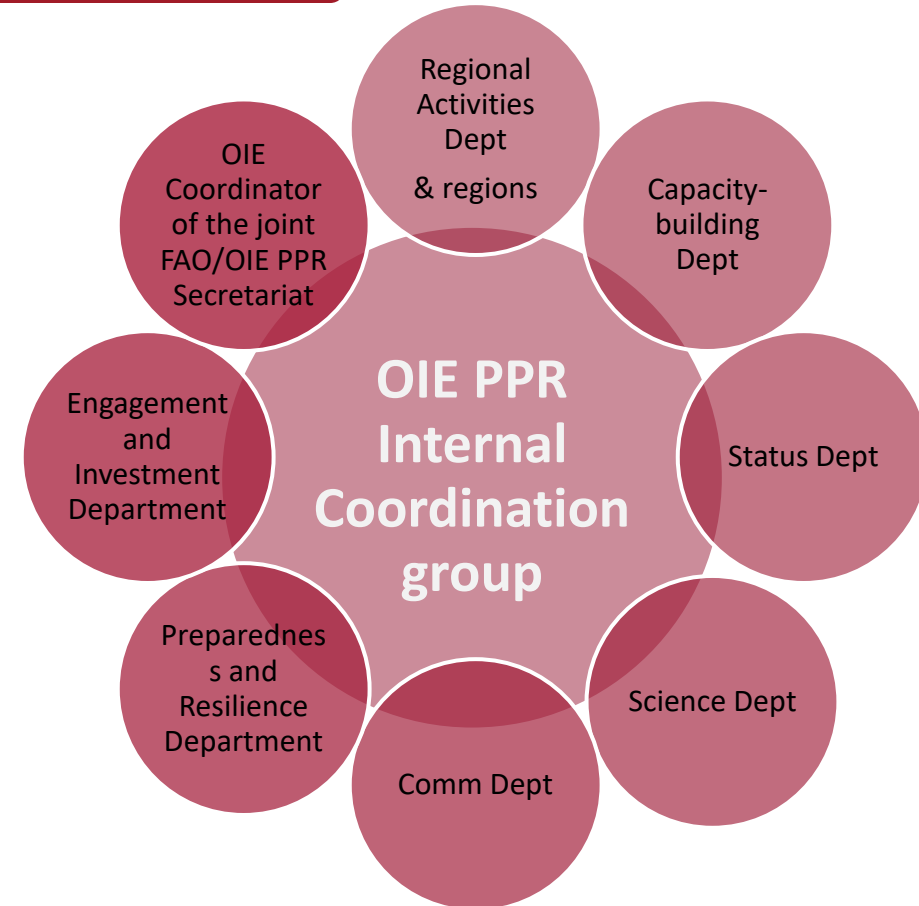


# OIE ACTIVITIES ADDRESSING THE CHALLENGES

In close cooperation with PPR Secretariat

PPR-GEP OIE Internal Coordination Group meets regularly to coordinate and monitor the progress under the following work streams:

- Strategy and advisory
- Member Country liaison
- Budget and donor liaison
- To address any other topic related to PPR



Action Plan developed by OIE HQ

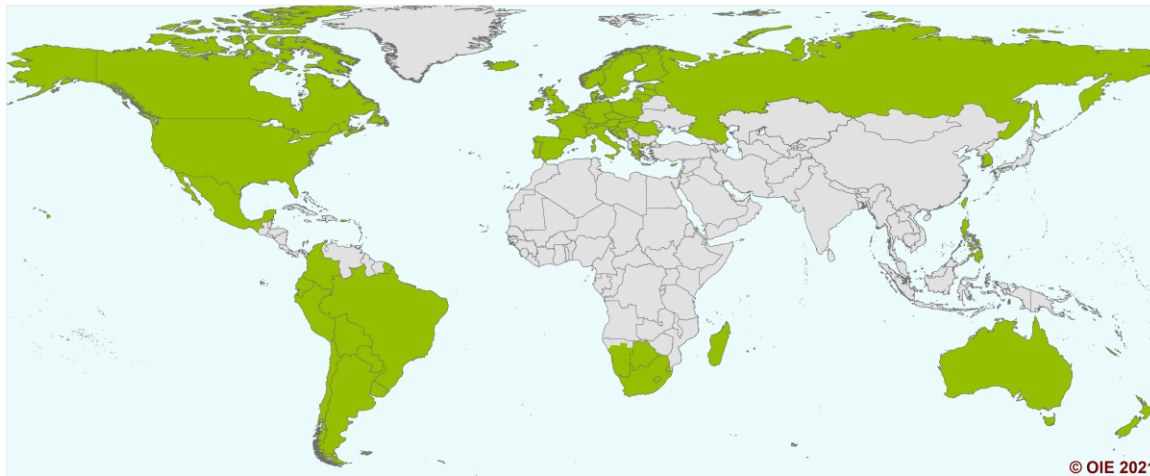
**Endorsed** BY OIE MANAGEMENT

# Official recognition of PPR free status and endorsement of national official control programmes

- 59 countries + one zone officially recognised as PPR free
- May 2020 Adapted Procedure: **Lesotho** officially recognised as PPR free
- Specific training (Regional Workshops) on official recognition procedures
  - ✓ Workshop for targeted African countries, Nairobi, Kenya, June 2019

OIE Members' official peste des petits ruminants status map

Last update October 2021



■ Members and zone recognised as free from PPR
 ■ Countries and zone with no OIE official status for PPR

<https://www.oie.int/en/what-we-do/animal-health-and-welfare/official-disease-status/>  
[https://www.oie.int/en/what-we-do/standards/codes-and-manuals/terrestrial-code-online-access/?id=169&L=1&htmfile=chapitre\\_ppr.htm](https://www.oie.int/en/what-we-do/standards/codes-and-manuals/terrestrial-code-online-access/?id=169&L=1&htmfile=chapitre_ppr.htm)

## BE A PIONEER IN THE ERADICATION OF PESTE DES PETITS RUMINANTS: ACHIEVE OFFICIAL RECOGNITION OF YOUR PPR STATUS!

Are you implementing activities in the framework of PPR Global Control & Eradication Strategy? Is your country historically free from PPR? Check the boxes to find out which stage of the PPR Global Strategy your country is at and find out what your country could apply for to achieve OIE official recognition for PPR!

IS PPR PRESENT IN YOUR COUNTRY?	I. YES	II/a. NO	II/b. NEVER REPORTED
ARE THESE ACTIVITIES <sup>1</sup> IN PLACE IN YOUR COUNTRY?	<ul style="list-style-type: none"> <li>National Official PPR Control Programme</li> <li>Timelines &amp; Performance indicators</li> <li>Effective Vaccination</li> <li>Vaccine complies with OIE Terrestrial Manual</li> </ul>	<ul style="list-style-type: none"> <li>No evidence of PPR outbreak &amp; PPRV infection for at least the past 2 years</li> <li>Vaccination suspended for at least the past 2 years</li> <li>Regular &amp; prompt animal disease reporting</li> </ul>	<ul style="list-style-type: none"> <li>PPR has been notifiable for at least 10 years<sup>2</sup></li> <li>Early detection system &amp; measures to prevent PPR introduction</li> <li>No vaccination</li> </ul>
STAGE OF PPR GLOBAL STRATEGY:	You are at <b>STAGE 3</b>		You are at <b>STAGE 4</b> Historical freedom
WHAT COULD YOUR COUNTRY APPLY FOR?	Endorsement of your official control Programme	Official recognition of PPR free status	Official recognition of PPR historical freedom

<sup>1</sup> For the detailed requirements please refer to the Terrestrial Code Chapter 14.7, Chapter 1.6 and Article 1.4.6  
<sup>2</sup> If notification of PPR is not mandatory as per legislation for at least 10 years, PPR specific surveillance should be in place to demonstrate absence of PPRV infection for at least 2 years (option II/a)

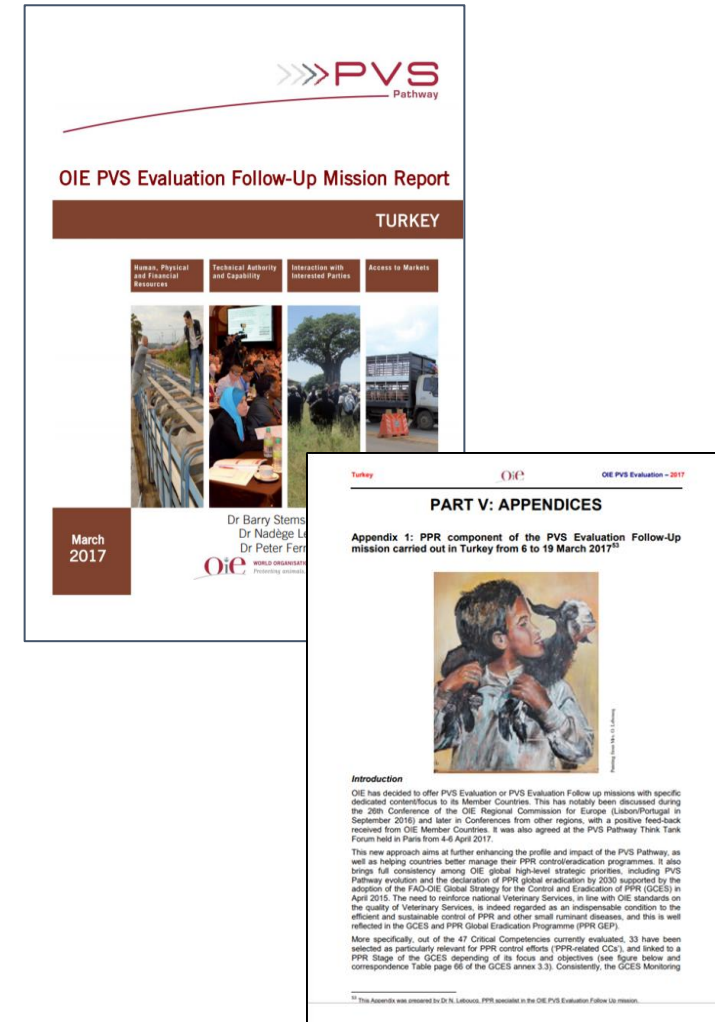
**Infographic on the link between the official recognition and GCES**  
<https://www.oie.int/app/uploads/2021/03/ppr-infographic-2019-a4.pdf>

# PVS Pathway -PVS Evaluation missions/PPR specific content

- ✓ Main PVS report is as normal, but:
  - PPR specialist on team (not team leader) undertakes the mission with a “PPR lens” visiting PPR relevant field sites
  - One full day workshopping PPR with VS
  - Drafts PPR annex to main report, which can be used as a stand-alone document
- ✓ Links to PMAT – provides objective field verification of PMAT staging with targeted recommendations
- ✓ Useful at any stage of National Strategic Plans development – to feed into its development, to monitor its progress with respect to PMAT etc.

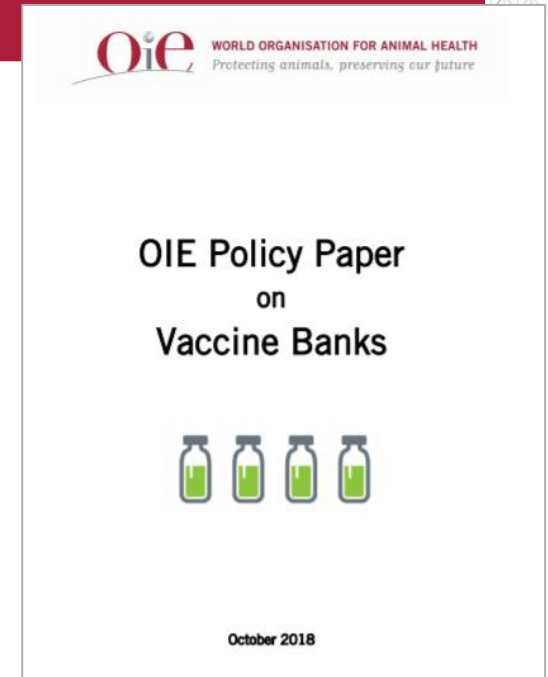
Country	Time period
Turkey	March 2017
Afghanistan	April 2017
Nigeria	January 2019
Tchad	January 2019
Burundi	February 2019
Liberia	August 2019
Iran	October 2019
Mongolia	October 2019

## ■ PVS-PPR missions to date



# PPR Vaccine Bank

- Established in 2013
- **Voluntary mechanism** which can be activated at the request of countries
- Objective: to ensure the procurement of high-quality vaccines manufactured in line with OIE standards and delivered in a timely manner for the benefit and use of OIE Member Countries
- OIE's Policy Paper on Vaccine Banks, published in 2018 to clarify the role and responsibility of the OIE and of countries benefitting from the mechanism  
[http://www.oie.int/fileadmin/Home/eng/Links/docs/pdf/Policy-Paper-VB-final-FR\\_Oct-2018.pdf](http://www.oie.int/fileadmin/Home/eng/Links/docs/pdf/Policy-Paper-VB-final-FR_Oct-2018.pdf)
- More than **80 million doses delivered** to countries in Africa so far (in particular for the implementation of the PRAPS project in Western and Central Africa-PRAPS).
- Following a new international call for tender launched in 2021, two manufacturers were selected based on technical and financial criteria, namely MCI Santé Animale and Hester Biosciences : the OIE is able to provide a thermotolerant PPR vaccine through its PPR Vaccine Bank.



# PPR Vaccine Bank - How to submit a request?

- Easy and streamlined process
  - Submit an official letter from the OIE Delegate to the OIE Director General
  - Complete the Justification Form presenting the situation and the need for PPR vaccines
  - Identify funding for the vaccines before sending the official request to the OIE
  - Liaise with the corresponding OIE Regional Representation if any question before sending the request (OIE Regional Representation for the Middle East, OIE Sub-Regional Representation in Abu Dhabi)
- ❖ ***After the vaccination campaign has been implemented:*** provide to the OIE a final report

## TEMPLATE JUSTIFICATION OF A VACCINE REQUEST AND OVERVIEW OF THE VACCINATION PROGRAMME AGAINST PESTE DES PETITS RUMINANTS (PPR) IN YOUR COUNTRY

### 1. Description of the epidemiological situation

Provide a brief description of the epidemiological situation of the disease, including number of outbreaks during the last 2 years. Please provide a map when appropriate. This can be provided as a separate document.

### 2. Description of the disease control measures already implemented

Vaccination       Stamping out       Movement restriction       Others

Please, provide a brief description (in case vaccination is being implemented, please indicate if the vaccinated animals are identified):

### 3. Vaccination programme<sup>1</sup>

#### 3.1. Objectives of the vaccination

Please, describe the main objectives of the vaccination strategy and where you will implement the vaccination campaigns. Please provide as an annex your national legislation on vaccination and the disease eradication strategy (or a summary of this strategy), if there are any.

# Laboratory Twinning

- Objective: improving capacity building and bolstering expertise in national laboratories by linking an existing OIE Reference Laboratory or Collaborating Centre with a selected candidate laboratory
- 3 OIE Reference Laboratories for PPR:
  - CIRAD, France
  - Pirbright Institute, UK
  - China Animal Health and Epidemiology Centre, Qingdao, People's Republic of China
- 3 Laboratory Twinning projects for PPR already completed (Jovac/Jordan, CIDB/Tanzania, Biopharma/Morocco)
- New PPR Twinning project launched: Senegal-CIRAD



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# OIE Reference Laboratory network for PPR

The OIE Reference Laboratory network for PPR

- New platform open to all laboratories actively performing PPR diagnostics
- Managed by the three OIE Reference Laboratories for PPR
- Officially launched by the OIE in November 2020: first meeting of the OIE PPR Reference Laboratories Network took place in November 2021, to share experience and best practices with its members
- Provides information on protocols, vaccines, reference material, training, proficiency tests, diagnostic services and expertise available to the community
- Fosters high quality and harmonized laboratory practice across the PPR diagnostic community, supporting the global PPR eradication effort

All information available at: <https://www.ppr-labs-oie-network.org/>

Contact: [arnaud.bataille@cirad.fr](mailto:arnaud.bataille@cirad.fr)





# Communication tools

**LUTTER CONTRE LA PPR** | COMMENT ÉTABLIR LE DIAGNOSTIC DE LA PESTE DES PETITS RUMINANTS

**Cette maladie virale très contagieuse affecte les troupeaux caprins & ovins**

Elle entraîne des taux de morbidité et de mortalité élevés et de graves conséquences socioéconomiques.

Il est essentiel de diagnostiquer rapidement cette maladie zoonotique pour endiguer sa propagation et améliorer la vie des éleveurs, le plus souvent des femmes, dont les revenus et l'alimentation dépendent de l'élevage.

**Reconnaitre un contexte favorable à l'apparition de la maladie**

- Récents mouvements ou rassemblements d'animaux
- Changements dans la conduite d'élevage (transition alimentaire, habitat, intensification d'élevage) ou de saison
- Introduction récente d'animaux
- Contact avec des animaux étrangers

**Repérer les animaux malades**  
Période d'incubation : 3 à 6 jours

- Pneumonie
- Écoulement nasal, buccal et/ou oculaire
- Lésions buccales (avec ou sans croûtes), salivation
- Diarrhée sévère
- Difficultés respiratoires
- Porte contagieuse

**Première infection :** Mortalité très élevée dans le troupeau

**Infection récurrente :** Signes limités aux animaux les plus jeunes

**LUTTER CONTRE LA PPR** | VACCINER CONTRE LA PESTE DES PETITS RUMINANTS

**Obtenir l'immunité collective d'un troupeau ovin ou caprin** > Vacciner tous les animaux: - de plus de 3 mois - en bonne santé

**S'assurer de la qualité du vaccin**

- Se procurer le vaccin via le circuit officiel (laboratoire national ou Direction des Services vétérinaires)
- Vérifier la date de péremption
- S'assurer de l'absence de moisissures ou d'effritement

Le vaccin se présente sous forme d'une pastille lyophilisée rigide à diluer.

**Respecter la chaîne du froid à chaque étape**

La plupart des vaccins contre la PPR ne supportent pas la chaleur. Les méthodes de conservation doivent être strictement respectées: toujours consulter les préconisations d'emploi.

Une fois dilué, le vaccin doit être conservé à +4°C et utilisé dans les 2 à 3 heures.

**Diluer le vaccin avec le produit fourni par le fabricant**

La dilution se fait sur le lieu de vaccination.

- Prélever une petite quantité de diluant tel qu'indiqué par le fabricant
- Transférer cette quantité dans le flacon de vaccin et vérifier la présence d'air: le produit dilué doit remonter dans le flacon. Si ce n'est pas le cas, ne pas utiliser
- Retourner plusieurs fois jusqu'à dilution de la pastille
- Aspirer et transférer la suspension vaccinale dans le flacon de diluant
- Retourner plusieurs fois jusqu'à homogénéisation

**Le vaccin est prêt à être utilisé**

Placer tous les flacons dans la glacière

Flacon de diluant | Flacon de vaccin

**Injecter le vaccin**

- Vérifier quel est le site d'injection et le voie d'administration selon le vaccin utilisé
- Tremousser l'animal
- Utiliser des aiguilles et seringues stériles (éviter les désinfectants chimiques pour stériliser)
- S'assurer de l'absence de bulle d'air dans la seringue
- Injecter ml de vaccin par voie sous-cutanée ou intramusculaire selon le vaccin utilisé
- Dans le cas d'une injection sous-cutanée, contrôler que le vaccin n'a pas été versé en dehors de l'animal

- Infographics on PPR diagnostics & vaccination under development
- Soon available in EN

# Resource Mobilisation

Project	Partner	Period	Geographical Area	PPR related budget	Observations
Support to the GF-TADs Programme	US - DTRA	2019 - 2022	Global	0.6 mUS\$	Grant co-implemented with FAO. Governance, Communication, Regional meetings, Twinning
PC - TADs	Germany	2020 - 2024	Eastern Africa	2.5 m€	VPP approach to PPR control; Including training and equipment of VPPs, support to vaccination
EU Grant (PPR part)	European Commission (DG SANTE)	2020 – 2021	Global	0.06 m€	Global, Regional, Epi / Lab meetings
PRAPS 1 (PPR & CBPP)	World Bank	2015 - 2021	Six Sahelian countries	3 mUS\$	Regional coordination, technical assistance and capacity building

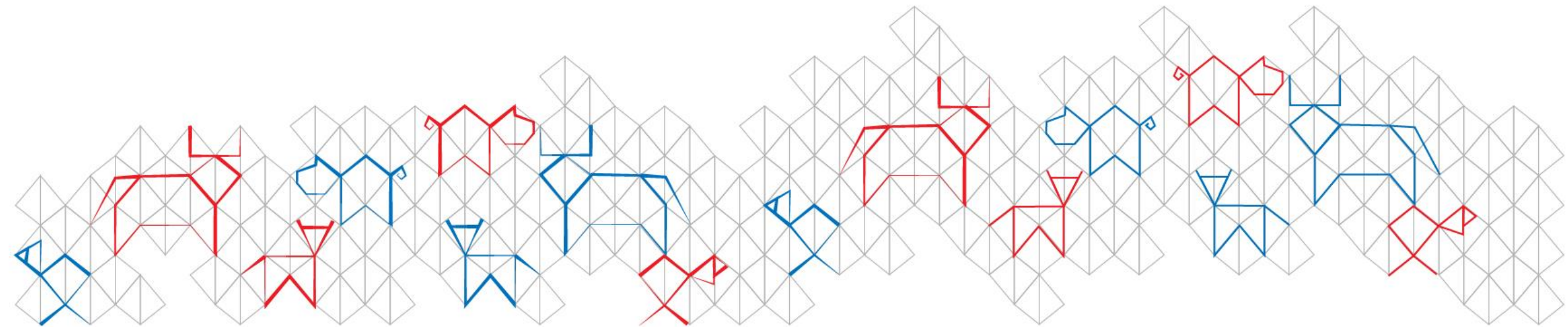
**Important!** As signalled by resource partners, countries should mobilize funds both internally and externally and demonstrate their engagement in PPR eradication activities by preparing their own investment and advocacy plans for seeking funding. Donors will then join forces with countries to fill in the funding gaps.





## WAY FORWARD

- Finalise and publish the PMAT revision
- Launch of the 2<sup>nd</sup> five-year phase
  - The formulation of the PPR GEP II, is in final stages writing
- FAO & OIE committed in continuing the activities to eradicate PPR by 2030;
- Need for countries to better mobilise investments through national and regional projects and implement vaccination campaigns informed by epidemiological and context (environment) situation assessments (Episystem approach)



Thank you  
for your  
attention

