Annex 3.3.

Food and Agriculture Organization of the United Nations

WORLD ORGANISATION FOR ANIMAL HEALTH

GF-TADs

PPR MONITORING and EVALUATION TOOL (PMAT)

A Companion Tool of the

GLOBAL STRATEGY FOR THE CONTROL AND ERADICATION OF PPR

Acknowledgements

The PMAT has been prepared by Dr Nadège Leboucq (OIE) and Dr Giancarlo Ferrari (FAO) with the support and contribution of Dr Joseph Domenech (OIE), under the FAO-OIE GF-TADs PPR Working Group responsibility.

The preparation of the PMAT has benefited from a similar work done by EuFMD, FAO and OIE experts to define an FMD Progressive Control Pathway (FMD-PCP) which allows monitoring the progress in the control of foot and mouth disease.

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Introduction

Peste des petits ruminants (PPR) is a flagship disease when it comes to addressing animal health issues related to poverty alleviation and the assurance of food security and its control should be considered as a Global Public Good. Combatting PPR is included in the OIE's Fifth Strategic Plan and in FAO's Strategic Objectives 2, 3 and 5. It is also one of the GF-TADs priority diseases at regional and global level and as such, PPR control is included in the 5-year GF-TADs Action Plan at global level as well as of the five GF-TADs regions.

The world Orgnisation for Animal Health (OIE) and the Food and Agriculture Organization of the United Nations (FAO) have decided to embark on the control and eradication of PPR at a global scale and develop a global strategy ('Global Strategy for the control and eradication of PPR', hereafter called 'PPR Global Strategy'). There is indeed a need to approach the problem in a systematic way in order to prevent re-occurrence of epidemic episodes and assist countries in promoting concerted actions to keep the disease under control if not to reach eradication.

The decision to prepare the Global PPR Strategy has been made easier particularly because of:

- The lessons learnt from the global eradication of rinderpest, officially declared in 2011, which could serve as a model for the eradication of PPR. The OIE and FAO Members States encouraged these two organisations to build on this RP eradication experience to expand the approach to the eradication of PPR. It was stated in particular at the 37th FAO Conference held in June 2011 where MS 'Encouraged FAO to take full advantage of the rinderpest eradication achievement and apply the lessons learned to prevent and control other diseases impacting food security, public health, the sustainability of agriculture systems and rural development;
- The adoption in May 2013 of a PPR official country status which can be obtained through the World Organisation for Animal Health (OIE) with the option to apply for an official endorsement of their national control programmes (see chapters 1.6. and 14.8. of the OIE *Terrestrial Animal Health Code*);
- The existence of a similar approach adopted for the FAO-OIE Global Strategy on FMD control and its companion tools, namely the FMD PCP Guide, FMD PCP assessment Tool and FMD Control Program templates. Some of these general principles adopted for FMD control can be transferred to other diseases, such as PPR.

The PPR Monitoring and Assessment Tool (PMAT) is a PPR Global Strategy companion tool, aiming at:

(i) Categorizing countries according to the prevailing epidemiological conditions and prevention and control activities with regard to PPR at the national and local levels;
(ii) Guiding and facilitating the efforts of countries that have embarked on prevention and control activities for PPR. Notably, it gives PPR-endemic countries guidance and milestones based on epidemiological and activity-based evidence.
(iii) Providing through the use of these milestones, and specific criteria a measure for comparing relative progress in PPR prevention within and between countries; and
(iv) Ultimately obtaining an official OIE status.

The PMAT uses an evidence-based, transparent assessment procedure to determine each country's Stage of the Global Strategy. The countries being assessed must be able to provide clear evidence of activities performed and progress achieved towards the key outcomes described in this Tool.

The PMAT can be used either as a self-assessment by the country or for external independent assessment by external experts (country visits) operating at the request of the country and under the supervision of the GF-TADS Global PPR Working Group.

The PMAT was designed to be used as a stand-alone document; this is why the main elements of the Global PPR Strategy are recalled in this document.

The use of the PMAT presented in this document will be evaluated after one year and a specific expert meeting will be organised in order to revise or update the methods and to fine tune some of the elements such as the performance indicators, their relevant targets and the rules for ranking conclusions (expected results/targets have been fully/partially/not achieved).

Besides the PMAT is a living document which can be adjusted anytime as needs arise; experience collated from countries who will use it on a regular basis will also be an important trigger for its revision.

Principles and application of the PMAT

1. Overview

The PPR Monitoring and Assessment Tool is based on four different stages identified in the Global Strategy for the progressive control and eradication of PPR, which correspond to a combination of decreasing levels of epidemiological risk and increasing levels of prevention and control.

The different stages identified in the Global Strategy are as follows:

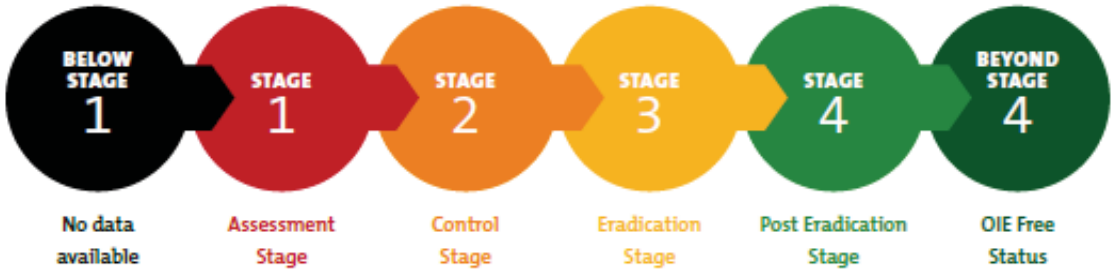


Fig. 1
Stages of the Global Strategy

The Stages range from Stage 1 – where the epidemiological situation is being assessed, to Stage 4 – when the country can provide evidence that there is no virus circulation either at zonal or national level, and is ready to apply for the OIE official country status of PPR freedom (see Fig. 1). On the contrary:

- A country where there are insufficient data to understand the true risk for PPR and where no appropriate structured epidemiological investigations are undertaken and where no coordinated prevention and national control programme is present, cannot be categorised in any of the four Stages (i.e. is 'below Stage 1');
- A country with an official OIE country status cannot be categorised either in any of the 4 Stages (i.e. is 'beyond Stage 4'). A country is entitled to apply to the OIE for such an official free at the end of Stage 4.

2. Progression along the stages

The usual progression is to move from one Stage (n) to the Stage immediately after (n+1); this will be the case for most countries where PPR is endemic, notably in developing countries which may not have the resources to tackle the disease straightaway on a national scale. However, for countries willing to eradicate PPR more rapidly, there is a 'fast-track procedure allowing them to move from Stage 1 to Stage 3, Stage 2 to Stage 4 and Stage 1 to Stage 4 (see Fig. 2).

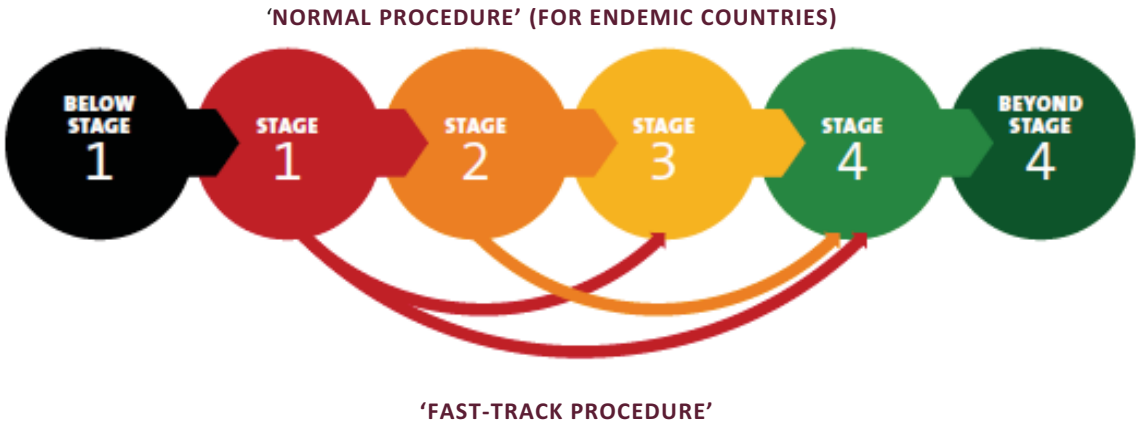


Fig. 2
Normal and fast-track procedures to progress along the PPR step-wise approach

Apart of the countries with an official OIE country status (in particular countries with an h**istorical freedom as per provisioned in the OIE *Terrestrial Animal Health Code* [the *Terrestrial Code*])** and of countries which are already categorised in a PPR stage above Stage 1,
Stage 1 is unavoidable for any country wishing to embark into the PPR step-wise approach to understand the situation and decide the relevant next step towards eradication.

It should be considered that:
- A higher Stage (n+1) assumes compliance with the preceding Stage (n) requirements
- For countries using fast track pathway (n to n+2 or n+3), the compliance with the preceding Stage (n+1 or n+2 respectively) remains fully valid except for some prevention and control measures, the application of which is likely to be related to the presence or absence of the virus as determined in Stage 1.

The speed of progression is upon each country's decision, depending on the epidemiological situation and the VS capacity. However, the Global PPR Strategy recommends the following duration for each Stage:
- Stage 1 → minimum 12 months and up to 3 years
- Stage 2 → 3 years (from 2 to 5 years)
- Stage 3 → 3 years (from 2 to 5 years)
- Stage 4 → 24 months and up to 3 years

3. TECHNICAL ELEMENTS

The categorisation for any specific country in a given stage (= to a specific level of risk) is the result of a combination of the five main technical elements described in the Global Strategy:

– **PPR Diagnostic system(s)** – effective control of PPR requires that basic reliable laboratory diagnostic services are operational within individual countries (preferred option) or are outsourced. The capability of field veterinarians and their skill in recognising PPR and initiating a differential diagnostic procedure should be part of the overall diagnostic system.

– **PPR Surveillance system(s)** – surveillance is key to understand PPR epidemiology in a country as well as to monitor progress in the control and eradication efforts. Along the Stages of PPR efforts to control and eradicate the disease, the surveillance system is likely to become more and more complex. In any case, comprehensive surveillance activities imply a thorough understanding of the production and trading systems (value chain).

– **PPR Prevention and control system(s) –** PPR prevention and control measures are a combination of different tools, which can include vaccination, improved biosecurity, animal identification, movement control, quarantine and stamping out. These individual tools are likely to be applied at different levels of intensity while an individual country is moving along the pathway.

– **Legal framework in place for PPR prevention and control** – PPR legislation is the cornerstone that provides the Veterinary Services with the necessary authority and capability to implement PPR surveillance, prevention and control activities. For each Stage it should be guaranteed that the legislation framework in place is consistent with the types of activities due to be carried out.

– **Stakeholder involvement on PPR –** true progress in PPR prevention, control and eventually eradication cannot be achieved without serious involvement of relevant stakeholders in all sectors (private and public veterinarians, para-professionals, livestock keepers and their community-based animal health workers, traders, NGOs and other development partners). This implies defining their roles and responsibilities at each Stage – the control efforts are likely to be a combination of public and private contributions. This also implies strong awareness and communication strategies directed to all these different actors.

4. OBJECTIVES, OUTCOMES AND ACTIVITIES

For each Stage, specific objectives are described (see Global PPR Strategy, Part B, Paragraph 2.3. and relate to these five main technical elements listed above (diagnostic, surveillance, prevention and control, legislation and stakeholder involvement). Their progressiveness along the step-wise approach proposed in the Strategy is depicted in the Table next page.

Outcomes and Activities in each Stage – also relating to the five listed above technical elements – are appropriate to mitigate the risk in accordance with the evidence provided in the preceding Stage or to new evidence provided by the continuous monitoring of the epidemiological situation and progress achieved. Activities and their impacts (outcomes) are indeed measurable in each Stage (PPR Monitoring and Assessment Tool).

PPR Stages / Elements	Stage 1 (Assessment)	Stage 2 (Control)	Stage 3 (Eradication)	Stage 4 (Post-eradication)
Diagnostic	• To establish laboratory diagnostic capacity mainly based on ELISA methods	• To strengthen the laboratory capacity through the introduction of bio-molecular methods for a better characterisation of field strains	• To further strengthen laboratory capacity to support eradication through the introduction of a laboratory quality assurance system	• To maintain laboratory capacity as in the previous Stage and strengthen the differential diagnostic pathways. To start implementing PPRV sequestration activities
Surveillance	• To implement monitoring activities and evaluate socio-economic impacts	• To implement surveillance incorporating a response mechanism and risk mitigation measures	• To strengthen surveillance incorporating an emergency response mechanism	• To shift the goal of surveillance to proving the absence of PPR
Prevention & control	• To lay the ground for the implementation of prevention and control activities	• To implement targeted vaccination campaigns– on an area or production system basis – and thereby, manage secondary prevention in the whole country	• To achieve eradication, either through extending vaccination to areas/production systems not yet vaccinated or by adopting a more aggressive policy to suppress virus replication in identified outbreaks	• To suspend vaccination. Eradication and prevention measures are based on stamping out, import movement control, biosecurity measures and risk analysis to understand the potential pathways of (re)introduction of PPR
Legal framework	• To assess the animal health legal framework with a focus on PPR	• To improve the legal framework to support the implementation of control activities in targeted sectors	• To further improve the legal framework to support prevention risk mitigation at population level, including the risk of PPR introduction from abroad, and possibly accommodate a compensation mechanism	• To further improve the legal framework to accommodate more stringent border control policies; prepare additional legal provisions (such as containment) to implement in the context of an official PPR free status
Stakeholder involvement	• To engage stakeholders for their agreement and concurrence on the PPR control and eradication objectives (notably in terms of transparency)	• To actively involve stakeholders in increased reporting and in targeted sectors in the realisation of vaccination campaigns	• To fully involve stakeholders in establishing procedures for accessing compensation funds in the event of PPR outbreaks	• To keep Stakeholders fully vigilant and committed with regard to PPR

The implementation of all activities should enable countries to achieve the progressive decrease in the incidence of PPR to the point at which the disease can be eliminated from the domestic animal populations (and wildlife if relevant). Control/eradication activities are regularly monitored to ensure that efforts are providing the expected outputs.

5. CAPACITY OF VETERINARY SERVICES (ENABLING ENVIRONMENT)

The PPR Global Strategy recognises that quality Veterinary Services – according to Section 3 of the OIE *Terrestrial Animal Health Code* (The *Terrestrial Code*) – are indispensable to the successful and sustainable implementation of PPR (and other major TADs) prevention and control activities, and are considered as an integral component of PPR control 'Enabling Environment'. As a result, VS capacity must be reinforced as the country moves along the PPR Stages ('progressive institutionalisation of PPR prevention and control'),

However, the evaluation/monitoring of the progressive reinforcement of the VS and of the prevention and control of PPR – while intimately intricate – are carried out using two distinct evaluation/monitoring tools, the OIE PVS evaluation Tool and the PPR Monitoring and Assessment Tool, respectively. While it was not deemed relevant to merge the two tools, the evaluation/monitoring of the VS and PPR control will be conducted in parallel, the levels of advancement of the OIE PVS Critical Competences being considered as relevant and important conditions to moving along the PPR Stages, as defined in Volume 1 of the GF-TADs global control strategy against major TADs (for most OIE PVS Critical Competences, level 3 is targeted).

The relevant Critical Competences and targeted level of advancement for each PPR Stage are fully integrated as specific questions in the PMAT questionnaire (in each relevant outcome); the whole table of correspondence between the PPR Stages and the OIE PVS Critical Competences (and relevant level of advancement to achieve) is provided in Annex 1.

The overall relationship between the PPR Global Strategy and OIE standards is captured in the Chart below (Fig. 3):

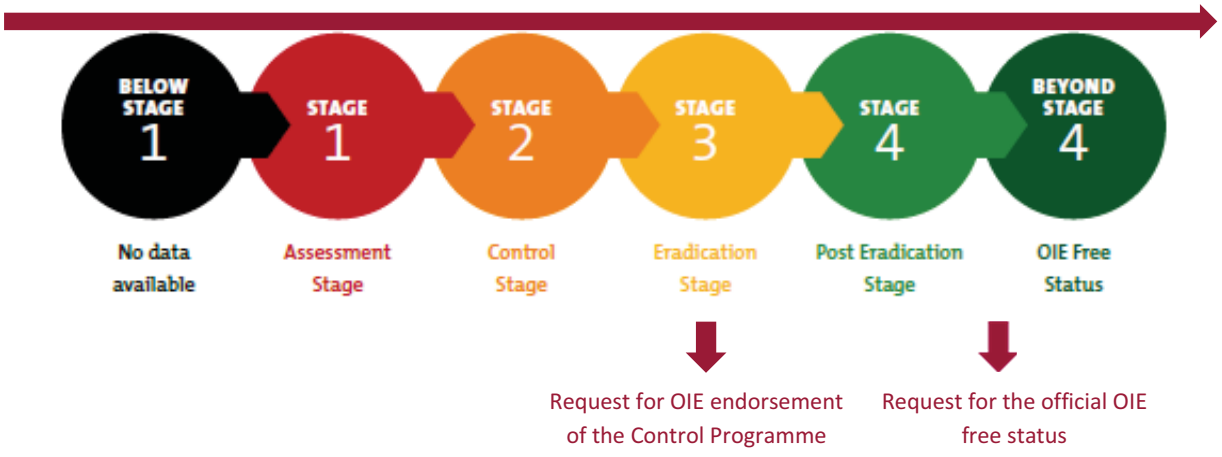


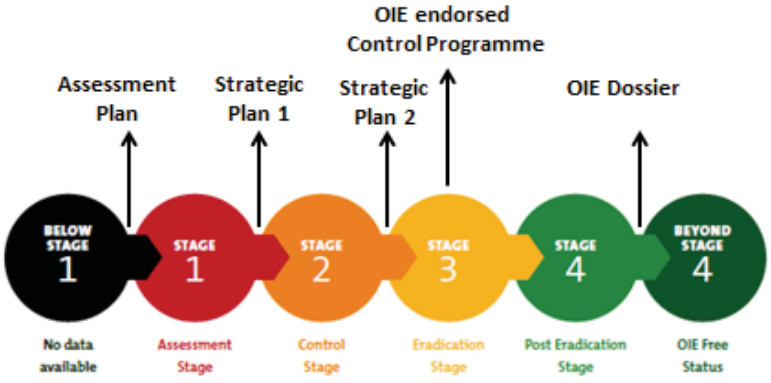
Fig. 3
'Enabling Environment' – Progressive compliance with OIE standards on the quality of Veterinary Services
(section 3 of the TAHC)

Progress from stage to stage

Each Stage is characterised by the following items:

- MINIMUM REQUIREMENTS to enter the Stage
- A key FOCUS
- OUTCOMES that relate to the five technical elements
- Typical ACTIVITIES
- Performance INDICATORS and TARGETS
- A QUESTIONNAIRE
- An annual PPR ROADMAP TABLE (for the year n+1)
- Indicative OIE PVS CRITICAL COMPETENCES relevant to each outcome as part of the Enabling Environment

1. Overview



Focus Stage 1 – To gain a better understanding on the presence of PPR	Assessment stage	Focus Stage 2 – To control both PPR clinical disease and infection in a specific zone or production system	Control stage	Focus Stage 3 – To achieve PPR eradication throughout the national territory	Eradication stage	Focus Stage 4 – To build evidence that there is no clinical disease nor virus circulation	Post-eradication stage
	• Outcome 1 (diagnostic)		• Outcome 1 (diagnostic)		• Outcome 1 (diagnostic)		• Outcome 1 (diagnostic)
	• Outcome 2 (surveillance)		• Outcome 2 (surveillance)		• Outcome 2 (surveillance)		• Outcome 2 (surveillance)
	• Outcome 3 (Surveillance)		• Outcome 3 (P&C)		• Outcome 3 (P&C)		• Outcome 3 (P&C)
	• Outcome 4 (P&C)		• Outcome 4 (P&C)		• Outcome 4 (legal Framework)		• Outcome 4 (legal Framework)
	• Outcome 5 (Legal Framework)		• Outcome 5 (Legal Framework)		• Outcome 5 (Stakeholders)		• Outcome 5 (Stakeholders)
	• Outcome 6 (Stakeholders)		• Outcome 6 (Stakeholders)				

Fig. 4
Overview of the Global Strategy stages and major features

THE PMAT QUESTIONNAIRE

The PMAT questionnaire – whose structure follows the one of a logical framework – is composed of a set of questions that allows assessing whether:

- The desired outcomes of each stage have been fully, partially or not achieved as a result of specific activities defined in the Global Strategy – one or several activities concurring to a given outcome – for which performance indicators and targets have been defined in most cases;
- The minimum requirements to proceed to the next Stage have been met or not ('go-ahead gateway'). In this case, it is a simple yes/no questionnaire which relates to these minimum requirements; to move forward, all questions must be responded by yes.

Note: the outcomes/activities are already presented in the relevant tables in the Global Strategy; the assessment methods through the definition and use of performance indicators are the important and key part of PMAT.

As a result, the questionnaire serves the two assessment and monitoring purposes:

1) To qualify countries at the appropriate stage along the step-wise approach for the control and eradication of PPR [assessment tool];
2) To monitor progress within a given Stage and provide an indicative list of activities to implement in the year to come (annual PPR Roadmap) [monitoring tool].

The questionnaire include questions linked to PPR prevention, control and eradication specific activities as well as the Enabling Environment (quality of the Veterinary Services); these questions (highlighted in pale yellow in the questionnaire) need also to be 'fully achieved' to move to the next Stage. As a result, the Strategic document (the Risk-based control Strategy to enter Stage 2 and the National Eradication Strategy to enter Stage 3) must consider how to timely address them.

How to fill the questionnaire

- **The monitoring component of the PMAT (Fig. 5)**

  For the questions related to the OIE PVS Critical Competences, 'fully achieved' indicated that the level of advancement for these Competences are 3 or above (in most cases, refer to Annex 1); the results are available in the OIE PVS reports for the country; if the country has not requested an OIE PVS initial mission or if it was conducted more than three years ago, it is recommended to apply for an OIE PVS initial or follow up mission).

- **The Assessment component of the PMAT (Fig. 6)**

  The criteria for a country to move to the higher next PPR stage is to fulfill all the outcomes indicated in the PMAT of the preceding stage as well as specific minimum requirements linked to the next stage (e.g. the formulation of a risk-based control Strategy to enter Stage 2).

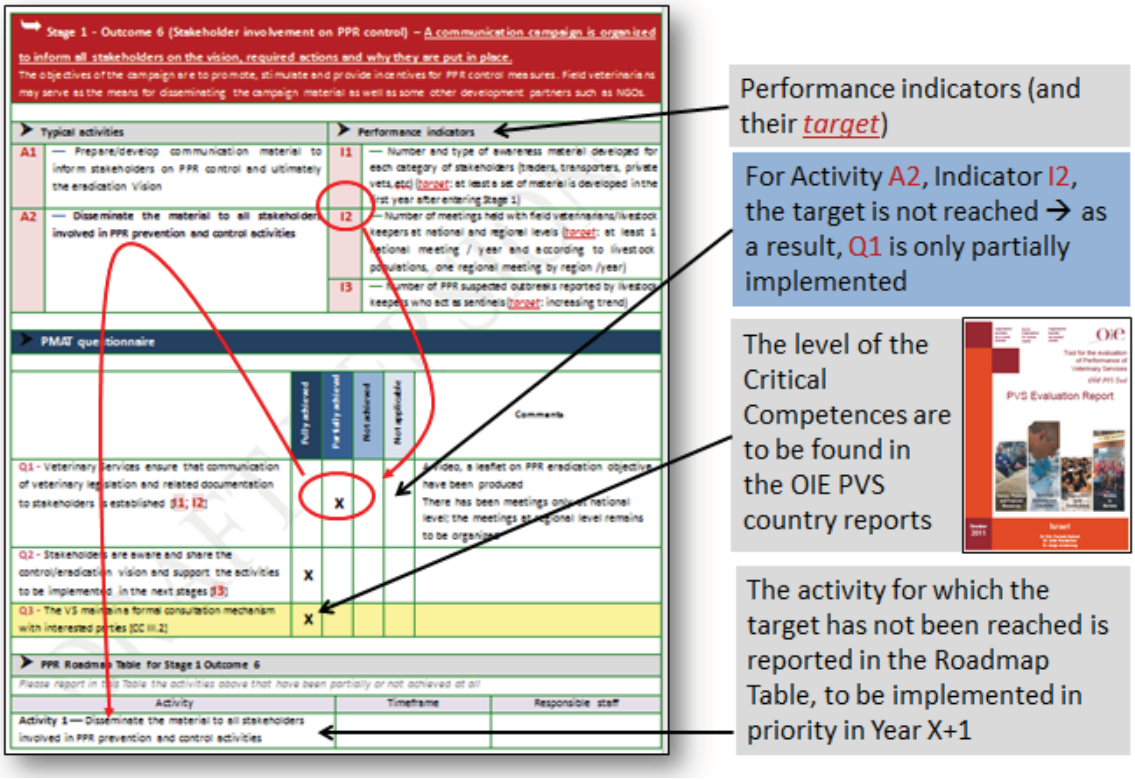


Fig. 5
How to fulfill the outcome tables (PMAT questionnaire)

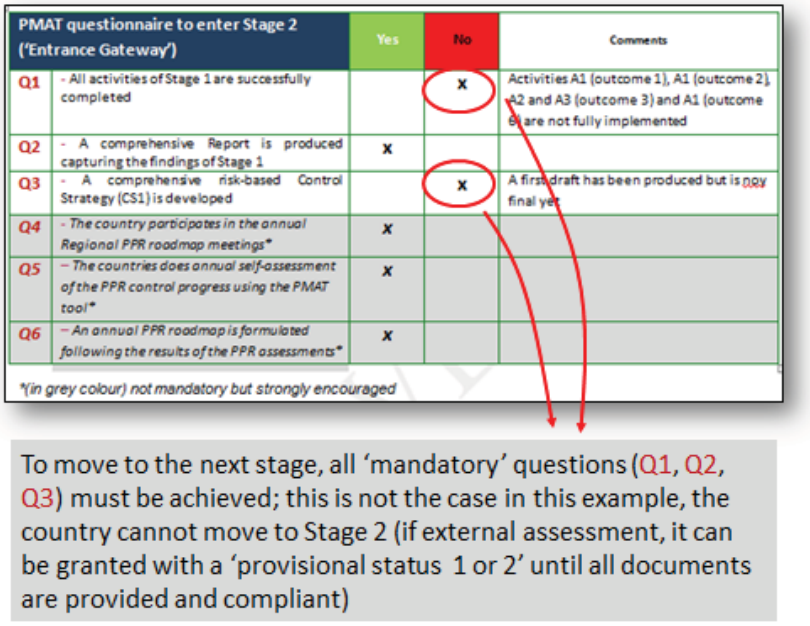


Fig. 6
How to fulfil the PMAT questionnaires to enter the stage above('Entrance gateway')

Assignment of a country to a specific stage is done by a Regional Advisory Group (RAG) during the annual PPR regional roadmap meetings organised through the GF-TADs mechanism (refer to Part C, chapter 2 on monitoring and Evaluation of the Global Strategy).

The RAG is composed by at least three Chief Veterinary Officers (CVOs) nominated every two years by member countries of the roadmap. In addition to the CVOs the RAG is also composed by one laboratory and one epidemiology specialist respectively coordinators of the regional laboratory or epidemiology networks. The main task of the RAG is to assess and qualify the countries of the roadmap in the most appropriate stage and it is further assisted in this task by the GF-TADs PPR working group. The procedures for being qualified in a given stage are summarised as follows:

(i) prior to the Regional Roadmap meeting, countries are sent the PMAT questionnaire through which they are supposed to self-assess in which PPR stage they claim to be;

(ii) the claimed stage will then need to be supported by evidence and individual countries will be invited to make a presentation, during the physical regional meeting, in support of the claimed stage;

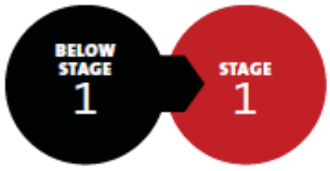
(iii) discrepancies between the results of the PMAT questionnaire and the data presented by countries can be further discussed in face to face interview meetings between the RAG and the country delegation;

(iv) based on the results of all the above the RAG will then assign the stage to each country.

Should disputes occur because of disagreement between the evaluation of the RAG and the claimed stage by a country an external evaluation process can be undertaken by independent expert/s visiting the concerned country.

A country where no structured information is available cannot be qualified in any of the four stages that will be described.

Entering the step-wise approach – stage 1



Minimum requirements:

1. **An Assessment Plan is available and endorsed by the Veterinary Authorities** to gain a better epidemiological understanding of the presence, distribution and (possibly) main risk factors associated with PPR in the country. The objectives, outputs and activities of the Assessment Plan can be derived directly from the outcomes that need to be fulfilled in Stage 1 in order to move to a higher Stage.
2. **The country commits to joining the (sub)regional PPR Roadmap**
   The objectives, outputs and activities of the RAP can be derived directly by the outcomes that need to be fulfilled in stage 1 in order to move to a higher stage.

• PMAT questionnaire to enter Stage 1 ('Entrance Gateway')		Yes	No
Q1	An Assessment Plan is available and endorsed by the Veterinary Authorities		
Q2	A national PPR Roadmap contact person is appointed		

1. STAGE 1 – ASSESSMENT PHASE

Stage 1 epidemiological situation

For countries entering the PPR control and eradication step-wise approach, at the beginning of Stage 1 the precise epidemiological situation is unknown or poorly known. PPR is most likely to be present, but due to poor surveillance and weak laboratory diagnostic capacity, it has not been reported. In this situation, there is no structured information available on the presence and distribution of PPR that would possibly lead to the formulation of effective control activity[1].

At the end of Stage 1 the epidemiological situation will be known based on (i) the occurrence or not of the disease expressed through clinical manifestations and (ii) the identification or not of the presence of infection using diagnostic tests, and will allow the conclusion to be drawn that:
- The country appears to be free of PPR, meeting or not the criteria of 'historically free' (see Article 1.4.6 of the OIE *Terrestrial Code*); or
- PPR is present in the country (epizootically and enzootically).

STAGE 1 FOCUS: to gain a better epidemiological understanding on the presence of PPR

In Stage 1, the main objective is to acquire elements for a better understanding of the presence (or possibly the absence) of PPR in the country, its distribution among the different farming systems and, ultimately, its impact on these systems. The generation of this information is an essential pre-requisite in order to reach a decision on what next needs to be done: it is important to distinguish whether the country will adopt the decision to implement activities with the initial aim to eradicate PPR only in specific sectors or geographical zones, recognising that the virus may still be circulating in other sectors/areas (Stage 2), or to eradicate PPR in the entire territory (Stage 3). The assessment phase may also demonstrate the absence of PPR, and in this case the country can directly move to Stage 4, applying for an OIE official free status.

Recommended Stage 1 duration: from one year, up to three years. It should be a relatively short period (one year) to allow control activities to start as soon as possible, but long enough to obtain a proper assessment, which will be the basis for the control Strategy.

[1] When a country is supposed or known to be free, even without specific PPR epidemiological surveillance programmes in place, it is ranked in stage 3 or 4 and the objective will be to document the freedom and to submit a dossier to the OIE for possible official recognition of PPR free status, following the provisions of Chapters 1.6. and 14.7. of the OIE *Terrestrial Code* (see below). The countries that are in a position to apply for PPR free status on a historical basis, according to *Terrestrial Code* Article 1.4.6., need to fulfil the OIE relevant criteria but without PPR-specific surveillance.

STAGE 1 KEY OUTCOMES

Stage 1 – Outcome 1 (Diagnostic Systems) – the laboratory diagnostic capacity of the country is established either because (outcome 1.a) the country has identified and equipped at least one national laboratory to provide diagnostic services using basic ELISA techniques for both antigen and antibodies detection or (outcome 1.b) the laboratory services are outsourced. In any case a laboratory service is guaranteed. (In case of 1.b, the capacity of one national laboratory to provide PPR diagnostic will be progressively built over Stage 1 and 2).

Typical activities for outcome 1.a		**Performance indicators**	
A1	— Assess throughout the country existing laboratory facilities candidates to be designated as the National Laboratory that will be responsible for testing field samples. *This process should lead to identify at least one laboratory that will act as national leading laboratory for PPR (Central National Laboratory)*Laboratories to be designated as Central National Laboratory and Provincial Laboratory*	**I1**	— Number of facilities in all countries involved in the PPR Control and eradication programme visited and assessed out by relevant experts of all those existing in the country (*target*: all of the existing facilities potentially candidate to be Central or Provincial Laboratory have been visited and assessed in the first 12 months after entering stage 1).
		I2	— Number of designated laboratories out of those assessed and found eligible to become a leading laboratory (*target*: in each country participating to the PPR control and eradication programme, one laboratory is being designated as Central National Laboratory and others quality controlled laboratories are designated as Provincial Laboratories (within three months after the assessment)
A2	— Assess throughout the country existing laboratory facilities to be designated as peripheral units to receive and prepare samples before they are sent to the designated leading laboratory/ies	**I3**	— Number of facilities visited and assessed out of all those existing in the country (*target*: at least 70% of the existing facilities to become peripherical unit have been visited and assessed in the first three months after entering stage 1)
		I4	— Number of facilities out of those assessed and found eligible to become designated peripherical units depending on the country administrative organisation; the peripheral unit will be under the responsibility of the Central or Provincial Laboratory or of the Regional VS (*target*: minimum number of 1 to several peripherical unit per regional administrative level (e.g. province, directorate, district) according to the administrative organisation and to the livestock populations
A3	— Establish (or review) ELISA diagnostic procedures for antigen and antibody detection and train laboratory staff to its implementation	**I5**	— Number of laboratory staff trained on ELISA techniques in Central National Laboratory and eventually in Provincial laboratories (*target*: 100% of the staff that will be involved in the testing has received training before 12 months after entering into stage 1)

A4	— Train peripheral units' staff to manipulate PPR samples before they are sent to the leading laboratory for testing	**I6**	— Number of peripherical units staff trained on proper manipulation of PPR field samples and eventually on basic first level diagnostic techniques (*target*: 70 % of the staff has received training before 12 months after entering into stage 1, 100% before two years)
A5	— Test samples (using basic ELISA techniques) and document them (if the laboratory has just started its activities)	**I7**	— Timeframe between receipt and testing of the samples for confirmatory purposes (i.e. clinical outbreaks) by the leading laboratory (*target*: five working days)
		I8	— Timeframe between receipt and testing of the samples for surveys purposes (i.e. serological surveys) by the Central National Laboratory and the Provincial Laboratories and after the whole survey has been completed (*target*: 90 working days)
		I9	— Timeframe between submission of a sample for confirmatory purpose to the peripherical units and testing by the Central National Laboratory and/or the Regional Laboratories (*target*: maximum 10 days)
		I10	— Percentage of testing sessions that needed to be repeated out of the total number of sessions (*target*: not exceeding 10 % in a 12-month period)
A6	— Design a Laboratory Information and Management System (LIMS) – if not already existing	**x**	No specific indicator

• PMAT questionnaire

		Fully achieved	Partially achieved	Not achieved	Not applicable	Comments
Q1	— The structure of the PPR laboratory network in the country has been established [**A1 - I1, I2; A2 - I3, I4**]					
Q2	— The Lab staff have acquired the necessary competences to manipulate properly field samples and conduct PPR diagnostic [**A3 - I5; A4 - I6**]					
Q3	— The PPR laboratory network is providing test results in accordance to the established procedure both in terms of quality and timely criteria [**A5 - I7, I8, I9, I10**]					

Q4	— Samples from all regions (where small ruminants are present) of the country have been tested [**A2- I4; A4 - I6**]					
Q5	— For major zoonoses and diseases of national economic importance, the VS have access to and use a laboratory to obtain a correct diagnosis [CC II.1.A level 2]					
Q6	— The national laboratory infrastructure generally meets the needs of the VS. Resources and organisation appear to be managed effectively and efficiently, but their regular funding is inadequate to support a sustainable and regularly maintained infrastructure [CC II.1.B level 3]					

➢ **PPR Roadmap Table for Stage 1 Outcome 1.a**

Please report in this Table the activities above that have been partially or Not achieved at all

Activity	Timeframe	Responsible staff
Activity 1 —		
Activity 2 —		
Activity 3 —		

➢ **Typical activities for outcome 1.b**		➢ **Performance indicators**	
A1	— Formulate Standard Operating Procedures on how to handle field samples (if not already existing)	**I1**	— Number of Central National Laboratory, Provincial Laboratories and peripherical units staff trained on proper manipulation and shipment of PPR field samples (*target*: 100% of the staff has received training before 24 months after entering into stage 1)
A2	— Train all staff involved in the reception of field samples to receive, record, manipulate, package and ship the field samples received		
A3	— Collect and ship samples to an OIE or FAO reference laboratory	**I2**	— Number of samples shipped out of those received (*target*: 100% samples)
		I3	— Average time required from receipt of samples to forwarding them to the unit that will ship abroad (*target*: five working days)
		I4	— Average time required from shipping abroad to receiving the result from the laboratory abroad (TAT) (*target*: two weeks)

• PMAT questionnaire

		Fully achieved	Partially achieved	Not achieved	Not applicable	Comments
Q1	— Diagnostic for PPR is carried out using outsourced capacity and there is a comprehensive description of the network of units involved in the manipulation of samples [A1 – I1]					
Q2	— The samples are properly handled from the field to the regional/international laboratory abroad [A1 – I1; A2 – I1; A3 – I2, I3, I4]					
Q3	— Samples from all regions (where small ruminants are present) of the country have been tested [A3-I2]					
Q4	— For major zoonoses and diseases of national economic importance, the VS have access to and use a laboratory to obtain a correct diagnosis [CC II.1.A level 2]					

➢ PPR Roadmap Table for Stage 1 Outcome 1.b

Please report in this Table the activities above that have been partially or Not achieved at all

Activity	Timeframe	Responsible staff
Activity 1 —		
Activity 2 —		

Stage 1 – Outcome 2 (Surveillance System) – A surveillance system is progressively established; however, at this stage, active surveillance should be fully operational allowing an understanding of how PPR may be introduced and/or maintained and what its impact is.

The monitoring/surveillance system will include implementation of specific field interventions and surveys based on clinical, epidemiological, serological, etc investigations and/or Participatory Disease Surveillance (PDS) or some other approaches.

The case definition for a possible and likely case of PPR is developed (to serve as basis for building the reporting system and for delivering training to field veterinarians).

	Typical activities		**Performance indicators**
A1	— Formulate/design and implement an overall monitoring/surveillance system (with its active and passive components)	**I1**	— Number of field veterinarians trained to conduct active surveillance (*target:* at least one veterinarian per administrative level – Province, Directorate, district…- and according to livestock populations is trained*)*
A2	— Develop related Procedures for each component (continuing vs. *ad hoc* surveys) of the surveillance system, as well as Forms to register data		No specific indicator
A3	— Implement a post-assessment evaluation Form to quantify the clinical and (possibly) the socio-economic impact at this Stage. Visit confirmed clinical outbreaks for such purposes	**I2**	— Number of post-assessment visits out of the number of confirmed clinical outbreaks (*target:* 75%)
		I3	— Maps of the geographical distribution of the clinical outbreaks confirmed (*target*: at least one annual map)
A4	— Design (and possibly implement already at this Stage) an information system in support of surveillance activities (each component and sub-component of the system should be managed through an information system	**I4**	— Map of the distribution of serum samples collected (should serologic surveys be implemented), their number and the test results (in the past 12 months) (*target:* at least one annual map)
A5	— Train veterinary officers from central and peripheral level on value chain and risk analysis	**I5**	— Number of Veterinarians at central, regional (Province, Directorate, district….) level involved in value chain and risk analysis trained (*target*: 75% of the staff has received training before 12 months after entering into Stage 1, 100% before two years)
A6	— (VS) Identify risks hotspots and transmission pathways using the value chains and risk analysis principles	**I6**	— Number of meetings organized by the Veterinary Services to identify and involve stakeholders along the value chain. Evidence of meetings should be available through minutes of the meetings (*target*: at least one meeting per year at national level and if possible one meeting during the first two years at each regional level)Number of hotspots identified (no specific targets)

● PMAT questionnaire						
		Fully achieved	**Partially achieved**	**Not achieved**	**Not applicable**	**Comments**
Q1	— The implementation of the surveillance system with its passive and active (mostly) component and additional surveys has led to a good understanding of the dynamics of PPR virus in the entire country in domestic species [**A1 – I1; A2 - x; A3 – I2, I3; A4 – I4**]					
Q2	— Value chains and risk analysis studies have provided a good understanding of hotspots and transmission pathways to an extent that those can be specifically targeted and mitigated (basis for implementing a Risk based strategic plan to move to stage 2) [**A5 – I5; A6 – I6**]					
Q3	— Post-assessment visits have led to gain insights into the impact of PPR at epi-unit level both in terms of morbidity/mortality and socio-economic impact [**A3 – I2, I3**]					
Q5	— The veterinarians' practices, knowledge and attitudes usually allow undertaking all professional/technical activities of the VS (e.g. epidemiological surveillance, early warning, public health, etc.) [CC I.2.A level 3]					
Q6	— The VS have access to CE that is reviewed annually and updated as necessary, but it is implemented only for some categories of the relevant personnel [CC I.3 level 3]					
Q7	— The VS compile and maintain data and have the capability to carry out risk analysis. The majority of risk management measures are based on risk assessment [CC II.3 level 3]					
Q8	— The VS conduct active surveillance in compliance with scientific principles and OIE standards for some relevant diseases, apply it to all susceptible populations, update it regularly and report the results systematically [CCII.5.B level 3]					

➢ **PPR Roadmap Table for Stage 1 Outcome 2**

Please report in this Table the activities above that have been partially or Not achieved at all

Activity	Timeframe	Responsible staff
Activity 1 –		
Activity 2 –		
Activity 3 -		

Stage 1 – Outcome 3 (Surveillance Systems) – the ability of field veterinarians to relate health events to PPR is improved.

Progressive organisation of a well-distributed Field Veterinary Network throughout the territory as well as the education of field veterinarians to recognise PPR and make a differential diagnosis are essential aspects in order to capture clinical events that may match the case definition of a possible case of PPR and ensure that such cases are adequately further investigated.

Typical activities		Performance indicators	
A1	— Train field veterinarians to increase their awareness about PPR and its differential diagnosis (training should also address collection, storage and submission to the closest delivery place in proper condition and to avoid potential spoiling of test results).	I1	— Number of field veterinarians trained on PPR diagnostic (including differential diagnostic) (*target*: at least one veterinarian per regional level (Province, directorate, district and according to livestock populations has received training before 12 months after entering into Stage 1)
		I2	— Number of PPR suspicions by veterinarians (*target*: increasing trends in the first year after entering into Stage 1)
A2	— Provide incentives for the installation of private veterinarians in remote areas to capture PPR clinical events	I3	— Number of new private veterinarians engaged in PPR prevention and control activities in remote areas (*target*: at least one to several new veterinarian is exercising per region (Province, Directorate, District) and according to livestock populations
		I4	– Maximal distance from a Field Veterinary Unit to a farmer (*target*: few kilometres to 25 kilometres in agropastoral and mixed crop production systems and from 25 km to 50 km in pastoral/nomadic production systems)

PMAT questionnaire

		Fully achieved	Partially achieved	Not achieved	Not applicable	Comments
Q1	— PPR occupies an appropriate place in the veterinary education curricula and in training programmes (specialized and continuing education) to maintain professional knowledge at national levels. [**A1 – I1, I2**]					
Q2	— The Field Veterinary Network covers the whole territory and any clinical outbreak (or suspicion) of PPR can be investigated by a field veterinarian in the next day [**A2 – I3, I4**]					
Q3	—The public sector of the VS develops accreditation/authorisation /delegation programmes for certain tasks, but these are not routinely reviewed [CCIII.4 level 3]					
Q4	—The VSB regulates veterinarians in all relevant sectors of the veterinary profession and applies disciplinary measures [CCIII.5.A level 3]					
Q5	—The VSB is an independent representative organisation with the functional capacity to implement all of its objectives [CCIII.5.B level 3]					

➢ PPR Roadmap Table for Stage 1 Outcome 3

Please report in this Table the activities above that have been partially or not achieved at all

Activity	Timeframe	Responsible staff
Activity 1 —		
Activity 2 —		
Activity 3 —		

Stage 1 – Outcome 4 (Prevention and Control system) – A national PPR Committee is established to coordinate all activities related to PPR prevention and control measures.

The Committee should be headed by the Central Veterinary Services and include representatives of other ministries / agencies involved in PPR control (Environment; Interior; etc.) as well as private veterinarians (Veterinary Statutory Bodies and Veterinary Association) and all actors involved in small ruminant production.

No official prevention activity is foreseen in Stage 1

Typical activities		Performance indicators	
A1	— Define the modus operandi and tasks of the National PPR Committee	**x**	No specific indicator
A2	— Organise meetings of the PPR Committee and prepare meeting reports	**I1**	— Number of meetings held by the national PPR Committee (*target*: at least one meetings per year)
A3	— Formulate/design and implement a Standard Operating Procedure for a response mechanism (appropriate to this Stage) in case of a suspected/confirmed outbreak*(In order for such procedures to be fully implemented, it is necessary that awareness material be prepared and distributed to livestock keepers (see Stage 1 Outcome 6).*	**I2**	— Number of days to have a response mechanism in place after a clinical case of PPR is suspected or confirmed (*target*: no longer than 10 days)

PMAT questionnaire

		Fully achieved	Partially achieved	Not achieved	Not applicable	Comments
Q1	– The National PPR Committee has been established and there is evidence that the Committee takes relevant decision on medium to long term planning in relation to PPR control/ eradication [**A1 – x; A2 – I1**]					
Q2	– A mechanism and procedures to visit PPR suspected and confirmed outbreaks are in place and guarantees that some follow-up action is taken not to discourage livestock keepers from reporting [**A3 – I2**]					

PPR Roadmap Table for Stage 1 Outcome 4

Please report in this Table the activities above that have been partially or not achieved at all

Activity	Timeframe	Responsible staff
Activity 1 —		
Activity 2 —		

Stage 1 – Outcome 5 (Legal Framework) – <u>The legal framework is improved during this stage to ensure that the Veterinary Services have the authority to take actions</u>, which may be needed in the following stages; in particular, **<u>PPR is a notifiable disease in the domestic population and suspected/confirmed cases in the wild animal population are also notified to the Veterinary Authorities.</u>**

Typical activities		**Performance indicators**	
A1	— (National PPR Committee) Establish specific Working Groups (involving competent authorities, legal experts and relevant stakeholders) to evaluate gaps in the veterinary legislation with regard to PPR that may need to be addressed	**I1**	— Number of meetings of the Working Groups held in the past 12 months to address legislation issues (*<u>target</u>*: at least one meetings in the first year after entering Stage 1)
		I2	— Number of views / concerns expressed by the relevant stakeholders taken into account (*<u>target</u>*: 100% comments made by relevant stakeholders are responded orally during or after the meetings and 75% in writing to the 'authors')
A2	— (WGs) Propose concrete amendments to update the legal framework conducive to efficient PPR prevention and control	**I3**	— Number of amendments proposed to update the PPR legal framework (*<u>target</u>*: no specific target as it is really dependant on the existing framework, whether comprehensive or not)

PMAT questionnaire

		Fully achieved	Partially achieved	Not achieved	Not applicable	Comments
Q1	– The PPR legal framework is being developed/modernized in consultation with stakeholders of the small ruminants sector [A1 – I1, I2; A2 – I3]					
Q2	– The OIE international standards on PPR (as well as those more horizontal on surveillance, notification, certification etc) are taken into account when developing/modernizing the PPR legal framework [A2 – I3]					
Q3	– The legal framework provides a comprehensive basis for the VS to complete activities foreseen in Stage 1 (collection, transmission and utilisation of epidemiological data relevant to PPR) [A2 – I3]					

Q4	– The legal framework provides the possibility for the Veterinary Authority to delegate specific tasks related to PPR official activities (such as vaccination) to private veterinarians [A2 – I3]					
Q5	–- The VS have the authority and the capability to participate in the preparation of national legislation and regulations, with adequate internal and external quality in some fields of activity, but lack the formal methodology to develop adequate national legislation and regulations regularly in all domains [CC IV.1 level 3]					

➢ **PPR Roadmap Table for Stage 1 Outcome 5**

Please report in this Table the activities above that have been partially or not achieved at all

Activity	Timeframe	Responsible staff
Activity 1 —		
Activity 2 —		
Activity 3 —		

Stage 1 – Outcome 6 (Stakeholder involvement on PPR control) – A communication campaign is organized to inform all stakeholders on the vision, required actions and why they are put in place.

The objectives of the campaign are to promote, stimulate and provide incentives for PPR control measures. Field veterinarians may serve as the means for disseminating the campaign material as well as some other development partners such as NGOs.

Typical activities		**Performance indicators**	
A1	— Prepare/develop communication material to inform stakeholders on PPR control and ultimately the eradication Vision	**I1**	— Number and type of awareness material developed for each category of stakeholders (traders, transporters, private vets, etc) (*target*: at least a set of material is developed in the first year after entering Stage 1)
A2	— Disseminate the material to all stakeholders involved in PPR prevention and control activities	**I2**	— Number of meetings held with field veterinarians/livestock keepers at national and regional levels (*target*: at least one national meeting / year and according to livestock populations, one regional meeting by region /year)
		I3	— Number of PPR suspected outbreaks reported by livestock keepers who act as sentinels (*target*: increasing trend)

PMAT questionnaire

		Fully achieved	Partially achieved	Not achieved	Not applicable	Comments
Q1	– Veterinary Services ensure that communication of veterinary legislation and related documentation to stakeholders is established [**A1 – I1; A2 – I2**]					
Q2	– Stakeholders are aware and share the control/eradication vision and support the activities to be implemented in the next stages [**A2 – I3**]					
Q3	- The VS maintain a formal consultation mechanism with interested parties [CC III.2 level 3]					

PPR Roadmap Table for Stage 1 Outcome 6

Please report in this Table the activities above that have been partially or not achieved at all

Activity	Timeframe	Responsible staff
Activity 1 —		
Activity 2 —		
Activity 3 —		

PMAT questionnaire to move to Stage 2 ('go-ahead Gateway')

• PMAT questionnaire to enter Stage 2 ('Entrance Gateway')		Yes	No	Comments
Q1	– All activities of Stage 1 are successfully completed			
Q2	– A comprehensive Report is produced capturing the findings of Stage 1			
Q3	– A comprehensive risk-based Control Strategy (CS1) is developed			
Q4	– *The country participates in the annual Regional PPR roadmap meetings**			
Q5	– *The countries does annual self-assessment of the PPR control progress using the PMAT tool**			
Q6	– *An annual PPR roadmap is formulated following the results of the PPR assessments**			

**(in grey colour) not mandatory but strongly encouraged*

Moving from Stage 1 to Stage 2

Minimum requirements:

1. **All activities of Stage 1 are successfully completed**
2. **A comprehensive Report** is produced capturing the findings of Stage 1 and should include: (i) the identification of specific 'hot spots' defined by the combination of high PPR impact, high risk of spread to other areas or of regular (re)introduction of new infected animals and their mapping in the country; (ii) risk factors for the presence of PPRV and subsequent risk pathways; (iii) a detailed value chain analysis of the small ruminant sector.
3. A **comprehensive risk-based Control Strategy** (CS1) is developed based on the outcomes of activities carried out in Stage 1 and includes Components 1, 2 and 3 of the Global PPR Strategy.

[Tool] A model Control Strategy is available

2. STAGE 2 – CONTROL PHASE

Stage 2 epidemiological situation

All activities carried out while in Stage 1 have led to its being establish that PPR is widespread/endemic in the country, where the virus is continually circulating. However, the results of the epidemiological investigations will also have shown that the PPR prevalence, incidence and socio-economic impacts are different from one area or production system to another and that high-risk areas ('hot spots') may exist in the country. In some cases, the production and marketing profiles could identify areas or production systems where, even if PPR is not important, prevention and control measures are needed. This information will allow the identification of areas and/or production systems where control activities should take place in priority.

STAGE 2 FOCUS: To control both PPR clinical disease and infection in a specific zone or production system

A risk-based Control Strategy has been formulated and will be implemented during Stage 2 in areas or production systems identified based on the outcomes of the activities carried out in Stage 1. However, if any new PPR epidemiological event appears in the non-targeted areas or production system, the control activities of Stage 2 will be extended to include them as well.

The control phase will be mainly based on a targeted vaccination programme aimed at controlling the disease, which means that the virus may be eradicated from the targeted small ruminant populations but without the aim of eradicating the disease nation-wide, foreseen in Stage 3.

Recommended Stage 2 duration: average three years (from two to five years).

Stage 2 KEY OUTCOMES

Stage 2 – Outcome 1 (*Diagnostic system*) – the laboratory diagnostic system works with a higher level of efficiency than in Stage 1 as possible shortcomings identified are now being solved; in addition, the system is further improved by introducing the use of bio-molecular techniques to obtain a characterisation of field virus isolates

The assumption used is that molecular epidemiology may provide additional insights into PPR distribution and dissemination pathways.

Should this not be a feasible option, a link with an international reference laboratory is established to which representative samples can be sent.

Characterisation of field virus isolates – and more generally the upgrading of laboratory capacity – is facilitated by the involvement of one or several national laboratories in the Regional Laboratory Network (when existing).

Typical activities		Performance indicators	
A1	Train laboratory staff in bio-molecular testing methods and equip at least one laboratory, if the use of bio-molecular testing is an option	I1	— Number of laboratory staff trained to laboratory bio-molecular technics (*target*: at least five staff per laboratory)
		I2	— Number of national laboratories equipped and performing laboratory bio-molecular diagnostic tests (*target*: at least one per country – unless outsourcing is the preferred option) Alternatively indication (name) of which International Reference laboratory has been chosen for sending samples for bio-molecular testing should be given.
A2	Establish Standard Operating Procedures for bio-molecular testing and regularly update them	I3	— Number of revisions of the Standard Operating Procedures for bio-molecular testing (*target*: SOPs reviewed each year and last revision not to exceed 12 months) Alternatively the SOPs have been fully established to ship samples abroad;
		I4	— Ratio between the number of test performed out of the number of test submitted (*target:* 100%)
A3	Establish written protocols to define criteria to select samples eligible for being processed using bio-molecular techniques	I5	— Protocols describing the criteria to select samples for being further processed with bio-molecular tests have been fully established and applied in the routinary work of the laboratory (no specific target is set for this indicator)
A4	Test all submitted samples meeting the eligible criteria for bio-molecular testing	I6	— Percentage of clusters for which the characterization of the PPR virus has been obtained (*target:* 100%)
A5	The laboratory actively participates in international proficiency test led by either an International Reference Laboratory or a Regional laboratory designated as leading laboratory in the regional network.	I7	— Number of proficiency tests conducted (*target*: at least, one regional network test / year and 100% of identified problems at laboratory level investigated and solved).

• PMAT questionnaire

		Fully achieved	Partially achieved	Not achieved	Not applicable	Comments
Q1	– The country has the capacity to perform bi-molecular tests in compliance with international laboratory standards [**A1 – I1, I2; A2 – I3, I4; A3 – I5**]					
Q2	– There is a good understanding of all the PPR strains circulating and their distribution across the country [**A4 – I6; A5 – I7**]					
Q3	— The LIMS is the central repository of (PPR) information generated by the PPR laboratory network, and serves as a data management control tool; it is also responsible for generation of laboratory management reports and dissemination of PPR information **(I6)**					

PPR Roadmap Table for Stage 2 Outcome 1

Please report in this Table the activities above that have been partially or not achieved at all

Activity	Timeframe	Responsible staff
Activity 1 —		
Activity 2 —		
Activity 3 —		

Stage 2 – Outcome 2 (Surveillance System) – The surveillance system is further strengthened – notably in its passive surveillance component – to capture any possible event linked to PPR.

New components are now added into the system, namely: (i) passive surveillance in slaughterhouses and markets; (ii) passive surveillance in wildlife through functional external coordination with Ministry in charge of wildlife/environment/hunters' organisations (some wild animals may act as sentinels, indicating any spill-over of PPR virus from domestic small ruminants); and (iii) involvement in the (sub-) Regional Epidemio- surveillance Network (when existing).

	Typical activities		Performance indicators
A1	— Train inspectors in slaughterhouses to increase their awareness of PPR and its differential diagnosis (training should also address collection, storage and submission to the closest delivery place in proper condition and to avoid potential spoiling of test results)	I1	— Number veterinarians working at slaughterhouses trained to PPR clinical and differential diagnostic (target: 75%of veterinarians operating in slaughterhouses have received training and refreshed training on PPR with last training held no longer than 12 months ago and 100% no longer than two years).
		I2	— Number of samples submitted to the laboratory for testing originating from slaughterhouses (*target: 75% of suspected cases at the abattoir' pre and post-morten inspection* are sampled (tissue samples collected from animals that presented changes) for PPR diagnostic
A2	— Design a procedure to improve external coordination with MoE and other organisations involved in wildlife management (notably for improved reporting of PPR cases in wildlife)	I3	— Number of clinical samples collected from wildlife suspected cases either shot or naturally found dead (*target*: 50% of carcases of naturally found dead wild animals susceptible to PPR and presenting symptoms that could relate to PPR are sampled and tested for PPR)
A3	— Organise an awareness campaign on PPR for hunters	I4	— Number of meetings held with representatives of hunters to promote awareness about PPR in wildlife (*target:* one national meeting with hunters and eventually at Regional level).
A4	— Participate in Regional Epidemio-surveillance Network activities (when existing); feed the Network with appropriate set of data	I5	— Number of times that the agreed set of data to be shared within the regional network has been sent to the designated regional hub (*target:* the transfer of data is always done according to the agreed schedule).

• PMAT questionnaire

		Fully achieved	Partially achieved	Not achieved	Not applicable	Comments
Q1	– The network of slaughter houses (and slaughter slabs) throughout the country is fully contributing to the passive component of the national surveillance system [**A1 – I1, I2**]					
Q2	– The national surveillance system in place is able to capture PPR events in wildlife (which provide good indications of a possible spill over from domestic small ruminants) [**A2 – I3; A3 – I4**]					
Q3	– A list of wild animals susceptible to PPR is available and a possible case definition of PPR in wildlife is also available [**A2 – I3**]					
Q4	– The country fully benefits from its active participation in the regional epidemiosurveillance network (when existing) [**A4 – I5**]					
Q5	– The training of veterinary para-professionals is of a uniform standard that allows the development of only basic specific competencies [CC I.2.B level 3]					
Q6	– The VS conduct passive surveillance in compliance with OIE standards for some relevant diseases at the national level through appropriate networks in the field, whereby samples from suspected cases are collected and sent for laboratory diagnosis with evidence of correct results obtained. The VS have a basic national disease reporting system [CC II.5.B level 3]					
Q7	– Ante- and post mortem inspection and collection of disease information (and coordination, as required) are undertaken in conformity with international standards for export premises and for all abattoirs producing meat for distribution in the national and local markets [CC II.12 level 4]					

Q8	– There are formal external coordination mechanisms with clearly described procedures or agreements for some activities and/or sectors [CC I.6.B level 3]					

PPR Roadmap Table for Stage 2 Outcome 2

Please report in this Table the activities above that have been partially or not achieved at all

Activity	Timeframe	Responsible staff
Activity 1 —		
Activity 2 —		
Activity 3 —		

Stage 2 – Outcome 3 (Prevention and control system) – A targeted vaccination campaign is implemented.
The government has decided to allocate some financial resources to the PPR vaccination programme in the targeted area or sub-population (vaccination in other zones may remain a private initiative). The targeted vaccination zone or sub-population may evolve during Stage 2, notably upon detection of clinical outbreaks outside the initial targeted zone and constantly taking into account the results of the monitoring system in place.

	Typical activities		Performance indicators
A1	— Formulate/design field vaccination Procedures (according to the strategy adopted by the country); for this purpose, the national PPR Committee appoints a specific Working Group	I1	— Number of Working Group meeting (*target:* at least two meetings in the first year after entering Stage 2)
A2	— Train field vaccination teams	I2	— Number of field veterinarians involved in vaccination field operations trained (*target:* 100% of field veterinarians involved)
A3	— Implement field vaccination (according to the strategy adopted by the country)	I3	— Intermediate vaccination coverage (*target*: at least 35% of the eligible animals are vaccinated 60 days after the beginning of the vaccination campaign (which represents 50% of the final expected 70% vaccination coverage)
		I4	— Final vaccination coverage (*target*: not less than 70% of eligible animals are vaccinated in each campaign) *Remark*: vaccination coverage is expressed as the number of animals administered with the vaccine divided by the number of animals eligible for being vaccinated in the target areas/sectors)
A4	— Conduct Post-Vaccination-Evaluation (PVE) with collection of data for evaluating the results of the vaccination programme and monitor the whole vaccination chain accordingly	I5	— Number of PVE undertaken (in order to evaluate for example the percentage of PPR clinical cases in vaccinated small ruminants populations, as an indicator of the vaccination effectiveness = number of cases in vaccinated population / total number of cases in the country) (*target:* one simplified PVE per year and one comprehensive PVE at key occasions e.g. when a country foreseen to move from one stage to a stage above (see description of the PVE tool in Annex 3.4)
		I6	— Temperature registration cards are used in each point of the vaccine distribution system (*target:* the temperature along the cold chain is always between +2°C and +8°C. Specific procedures for managing failures in the cold chain must be part of the cold chain monitoring system.

		I7	— Immune response (expressed as the percentage of animals developing a protective serological titre out of the number of animals actually administered with the vaccine) (*target*: at least 80% of animals should have a serological titre to be considered protective at 21 or 28 days post PPR vaccination).

• PMAT questionnaire

		Fully achieved	Partially achieved	Not achieved	Not applicable	Comments
Q1	– The PPR Vaccination Campaign is delivered according to the Risk-based Control Strategy [A1 – I1; A2 – I2; A3 – I3, I4]					
Q2	– The vaccine distribution and delivery system is monitored on a regular basis and allows for immediate corrective actions if needed [A4 – I5, I6]					
Q3	– The vaccines used comply with OIE quality requirements [A1 – I1]					
Q4	- The majority of veterinary and other professional positions are occupied by appropriately qualified personnel at local (field) levels [CC I.1.A level 3]					
Q5	- The majority of technical positions at local (field) levels are occupied by personnel holding appropriate qualifications [CC I.1.B level 3]					
Q6	- There are internal coordination mechanisms and a clear and effective chain of command for some activities [CC I.6.A level 3]					
Q7	– The VS have suitable physical resources at national, regional and some local levels and maintenance and replacement of obsolete items occurs only occasionally [CC I.7 level 3]					
Q8	– Funding for new or expanded operations is on a case-by-case basis, not always based on risk analysis and/or cost benefit analysis [CC I.8 level 4]					

Q9	– The VS implement prevention, control or eradication programmes for some diseases and/or in some areas with scientific evaluation of their efficacy and efficiency [CC II.7 level 3]					
Q10	– The VS have implemented biosecurity measures that enable it to establish and maintain disease free zones for selected animals and animal products, as necessary [CC IV.7 level 3]					

PPR Roadmap Table for Stage 2 Outcome 3

Please report in this Table the activities above that have been partially or not achieved at all

Activity	Timeframe	Responsible staff
Activity 1 —		
Activity 2 —		
Activity 3 —		

Stage 2 – *Outcome 4 (Prevention and control system)* – Additional measures are put in place to ensure the success of the vaccination campaign.

In particular, (i) all outbreaks are investigated to (a) clearly understand why clinical outbreaks may be observed in the sectors/zones covered by the vaccination, and (b) assist in deciding if the vaccination sectors/zones needs to be extended or not (in this case, it will remain limited to what is indicated in Stage 1); and (ii) animal movements (within the country at this Stage) are controlled to ensure that the two sub-populations with a different health status as a result of the vaccination campaign remain separate; however, some countries may not be in the position to efficiently regulate animal movement. In such a case, it could be feasible to manage the obligation of introducing only vaccinated animals (or animals to be vaccinated) in those sectors/areas where targeted vaccination is on-going.

	Typical activities		Performance indicators
A1	— Design an outbreak investigation form to collate the following information: (i) possible date of introduction of the virus into the infected premises; (ii) possible means of introduction; and (iii) potential spreading		no specific indicator
A2	— Conduct investigations for all detected/reported outbreaks, whether in or outside the vaccination sectors/zones	I1	— Number of PPR clinical outbreaks investigated (*target*: 75% of PPR outbreaks are investigated).
		I2	Average number of days required from confirmation to the first visit for outbreaks investigation purposes (*target*: no more than one week from confirmation to first visit for epidemiological enquiries).
A3	— Implement movement controls between the vaccinated/non-vaccinated sectors/zones, in close collaboration with other Services involved (police notably)	I3	— Number of trainings on movement control of animals delivered to local police (*target*: at least one training at national level and possible other trainings at regional levels where appropriate (according to livestock populations and importance of movements) *Nota bene*: the responsibility of implementing movement controls is under VS responsibility but when it implies restriction measures, as defined in relevant regulatory texts, their enforcement will involve the police in this particular case no related indicator is proposed; however, a strong external coordination is expected to be put in place for the VS to supervise the police activities in small ruminants movement control

• PMAT questionnaire

		Fully achieved	Partially achieved	Not achieved	Not applicable	Comments
Q1	– The PPR epidemiological situation is further understood thanks to the systematic investigations of PPR clinical outbreaks [**A1 – x; A2 – I1, I2**]					
Q2	- The vaccination measures have been further consolidated taking into account the results of systematic PPR clinical outbreak investigations [**A2 – I1, I2**]					
Q3	- The unregulated movements of small ruminants are not affecting the effectiveness of the control measures in Stage 2 [**A3 – I3, I4**]					
Q4	– The VS regularly analyse records and documented procedures to improve efficiency and effectiveness [CC I.11 level 4]					

➢ PPR Roadmap Table for Stage 2 Outcome 4

Please report in this Table the activities above that have been partially or not achieved at all

Activity	Timeframe	Responsible staff
Activity 1 —		
Activity 2 —		
Activity 3 —		

Stage 2 – Outcome 5 (*Legal framework*) – The legal framework is fully supportive of the control and prevention activities foreseen in stage 2.

Typical activities		Performance indicators	
A1	— Organise meetings of specific working groups (mixed Veterinary Services, other authorities, and stakeholders) to better understand the impact of control measures (including financial aspects) on stakeholders and upgrade the legislation framework to support field control activities	I1	— Number of PPR specific acts issued by the Veterinary Services in support of the field control activities (no specific targets are set)
A2	— Propose concrete amendments to update the legal framework conducive to efficient PPR prevention and control	I2	— Number of proposals submitted to update the legal framework (no specific target)

PMAT questionnaire

		Fully achieved	Partially achieved	Not achieved	Not applicable	Comments
Q1	– The impact of the control measures has been evaluated [**A1 – I1**]					
Q2	– The legal framework includes the necessary provisions for implementing the control measures foreseen in Stage 3 (notably compulsory vaccination of sheep and goats in the country or zone) [**A2 – I2**]					
Q3	– The legal framework provides for the financing of PPR control measures, such as operational expenses [**A1 – I1**]					
Q4	– The legal framework defines the prerogatives of veterinarians and veterinary para-professionals in PPR prevention and control measures [**A2 – I2**]					
Q5	– Veterinary legislation is generally implemented. As required, the VS have the power to take legal action/initiate prosecution in instances of non-compliance in most relevant fields of activity [CC IV.2 level 3]					

➢ **PPR Roadmap Table for Stage 2 Outcome 5**
Please report in this Table the activities above that have been partially or not achieved at all

Activity	Timeframe	Responsible staff
Activity 1 —		
Activity 2 —		
Activity 3 —		

➥ **Stage 2 – Outcome 6 (Stakeholders' involvement) – The Stakeholders fully contribute to the control efforts foreseen in Stage 2.**

This notably implies that the stakeholders (i) facilitate the vaccination operations in the field –for instance by gathering the animals and handling them; (ii) respect the movement restrictions within the country; and (iii) ensure the early reporting of suspected clinical outbreaks to the Veterinary Services; at this Stage, early reporting of suspected clinical outbreaks – in particular in the targeted vaccination areas/production systems – is critical to adjust the control measures already put in place.

➢ Typical activities		➢ Performance indicators	
A1	— Prepare and disseminate informative material to increase awareness among livestock keepers and thereby facilitate reports of suspected cases.	I1	— Number of awareness material printed and distributed (no specific targets set)
A2	— Prepare communication material to explain and convince (advocacy) all stakeholders particularly farmer that control of PPR is needed	I2	— Number of awareness meetings organized with livestock keepers (*target*: a least, on meeting at national level and possibly one meeting at regional level(Province, Directorate, district…) / year according to small ruminant populations
A3	— Organise meetings with the livestock keepers and their partners active in the field (NGOs, etc.)	I3	— Number of meetings held in the past 12 months with livestock keepers (*target*: at least one meeting at national level and possibly one meeting at regional level(Province, Directorate, district…) / year according to small ruminant populations
A4	— Should wildlife be identified among the issues to be addressed, organise meetings involving wildlife specialists and other stakeholders (such as hunters)	I4	— Number of meetings held with wildlife specialists and stakeholders to address issue related to wildlife (*target*: at least one meeting at national level and possibly one meeting at regional level(Province, Directorate, district…) / year according to small ruminant populations

• PMAT questionnaire

		Fully achieved	Partially achieved	Not achieved	Not applicable	Comments
Q1	– The livestock keepers and other actors (forest guards, etc) fully act as sentinels for the early detection of PPR clinical outbreaks [**A1 – I1; A3 – I3; A4 – I4**]					
Q2	– The livestock keepers are actively contributing to the implementation of the control measures foreseen in Stage 2 [**A2 – I2; A3 – I3**]					
Q3	– The Veterinary Services ensure communication of PPR legal framework and related documentation to actively involve the various stakeholders [**A1 – I1; A2 – I2; A3 – I3; A4 – I4**]					
Q4	– The VS contact point for communication provides up-to-date information, accessible via the Internet and other appropriate channels, on activities and programmes [CC III.1 level 4]					

➢ PPR Roadmap Table for Stage 2 Outcome 6

Please report in this Table the activities above that have been partially or not achieved at all

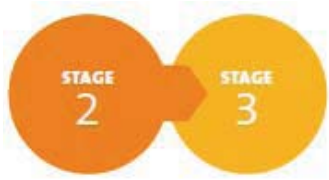
Activity	Timeframe	Responsible staff
Activity 1 —		
Activity 2 —		
Activity 3 —		

PMAT questionnaire to move to Stage 3 ('go-ahead Gateway')

• PMAT questionnaire to enter Stage 3 ('Entrance Gateway')		Yes	No	Comments
Q1	– All activities of Stage 2 are successfully completed			
Q2	– A comprehensive risk-based Control Strategy (CS1) is developed			
Q3	*– The country participates in the annual Regional PPR roadmap meetings**			
Q4	*– The countries does annual self-assessment of the PPR control progress using the PMAT tool**			
Q5	*– An annual PPR roadmap is formulated following the results of the PPR assessments**			

**(in grey colour) not mandatory but strongly encouraged*

Moving from Stage 2 to Stage 3



Minimum requirements:

1. **All activities of Stage 2 are successfully completed**
2. A national **eradication Strategy** is developed with Component 1, 2 and 3 of the Global PPR Strategy.

Nota bene: the Eradication Strategy is a continuation /reinforcement of the Control Strategy established at the end of Stage 1 but in a more aggressive way, aiming at eradicating PPR in the entire territory (or zone).

3. STAGE 3 – Eradication phase

Stage 3 epidemiological situation

At the beginning of Stage 3, the occurrence of clinical disease in the sub-population covered by the vaccination programme carried out in Stage 2 is expected to be nil. In the sub-populations not covered by the vaccination programme, three scenarios are possible: (i) there is no PPRV circulation, (ii) cases/outbreaks occur only sporadically (as the programme is expected to have a secondary preventive effect in non-vaccinated animals in the surrounding area), or (iii) the situation remains endemic (but with a small socio-economic impact, otherwise they would have been chosen to be part of the targeted Stage 2 vaccination programme). In the last two scenarios, strong control measures will need to be implemented. In the first scenario, strong preventive measures and emergency response capabilities have to be put in place

At the end of Stage 3, no clinical outbreaks can be detected in the whole territory and diagnostic tests also indicate that the virus is no longer circulating in the domestic animal and wildlife populations.

STAGE 3 FOCUS: To achieve the eradication of PPR from the national territory of the involved country

The country has the capacity and resources to move towards an eradication programme. Whether this should be based on extending the vaccination to other production systems or to other geographical areas not yet covered under Stage 2 or possibly on strategies not based on vaccination will be decided by evaluating the results of Stage 2. Moving towards eradication may mean that the country will gain the capability and resources to adopt a more aggressive control strategy to suppress virus replication in those premises where new clinical outbreaks may be detected.

At this Stage, the country is moving toward eradication and any health events that could be related to the presence of PPR virus need to be promptly detected and reported and appropriate measures immediately put in place to control them. If a new risk of introducing PPRV in the area or production system arises, the results of the surveillance system and of epidemiological analysis must identify and qualify the risks and appropriate measures should be rapidly implemented to mitigate the risk of introduction.

Recommended Stage 3 duration: average three years (from two to five years).

STAGE 3 KEY OUTCOMES

Stage 3 – Outcome 1 *(Diagnostic system)* – <u>The Laboratory starts to develop a quality assurance scheme</u>.

Laboratory maintains at least the same level of activities as in the previous Stage, while putting Quality Assurance in place, at least for all laboratories used by the Veterinary Services. A strong link with an international reference laboratory is also maintained

	Typical activities		Performance indicators
A1	— Implement a quality control system in the central laboratory and its (or relevant administrative official umbrella)branches or relevant structures constituting the laboratory network in the country (Regional laboratories and eventually 'Peripheral Units'	**I1**	— Frequency with which the AQ SOPs are reviewed and updated (*target*: at least once a year and the last revision has been made no longer than two years ago at any point in time).
A2	— Implement collateral procedures to ensure that stocks of reagents, laboratory devices, equipment, etc. are purchased following quality assurance procedures in all the laboratory/ies involved in the diagnosis of PPR	**I2**	— Percentage of SOPS for which shortcomings have been identified (*target*: less than 25%)

PMAT questionnaire

		Fully achieved	Partially achieved	Not achieved	Not applicable	Comments
Q1	– A quality control system for PPR laboratories activities has been established that covers the entire laboratory network in the country [**A1 – I1**]					
Q2	– The quality control system adopted by the diagnostic laboratory is audited regularly (*nota bene:* this may not be feasible in several developing countries where independent evaluation services may not be available. It maybe would be interesting if this capacity is implemented within the regional laboratory network) [**A1 – I1; A2 – I2**]					
Q3	– The QA system in place fully ensures the reliability of the PPR (and other small ruminant diseases) diagnostic tests performed [**A1 – I1; A2 – I2**]					
Q4	– Some laboratories used by the public sector VS are using formal QA systems [CC II.2 level 2]					

➢ **PPR Roadmap Table for Stage 3 Outcome 1**		
Please report in this Table the activities above that have been partially or not achieved at all		
Activity	Timeframe	Responsible staff
Activity 1 —		
Activity 2 —		
Activity 3 —		

➥ Stage 3 – Outcome 2 (Surveillance system) – <u>The surveillance system has been further upgraded and includes specific components addressing early warning.</u>

The surveillance system continues to operate as indicated in previous Stages but in addition, its sensitivity is increased in Stage 3: (i) information on neighbouring countries (or on countries from which animals/goods are imported that may carry the virus) is now routinely collected; (ii) high resolution surveillance may target specific sub-groups (newborns not yet vaccinated) or cattle as proxy indicators of virus circulation; (iii) the activities to detect cases in wildlife are increased.

	➢ Typical activities		➢ Performance indicators
A1	— Establish procedures to capture PPR health events in neighbouring countries or countries from which animals are imported (the Group dedicated to qualitative Risk Assessment already identified in Stage 1 should conduct this work).	**A1**	— Number of Import Risk Assessment conducted (*<u>target</u>*: as often as required)
A2	— Design and implement surveillance in those sub-populations or areas where the events can be captured and misinterpretation is minimised	**A2**	— Number and type of samples tested in those sub-populations selected for high resolution surveillance and where negative results are expected (*<u>target</u>*: surveillance to detect disease at least at 10% level with herd sensitivity of 95%)
		A3	— Number of PPR clinical outbreaks detected in the last 12 months before considering moving to Stage 4 (*<u>target</u>*: 0 outbreaks)
A3	— Increase the collection of sero-surveillance data from wildlife and other susceptible species	**A4**	— Number of samples collected and tested from wildlife in the past 12 months or from species utilised as proxy for virus circulation; i.e. large ruminants (*<u>target</u>*: surveillance to detect disease/infection at least at 20% level with herd sensitivity of 95%).

• PMAT questionnaire

		Fully achieved	Partially achieved	Not achieved	Not applicable	Comments
Q1	– The national surveillance system has been further strengthened to address the risk of PPR introduction from abroad [**A1 – I1**]					
Q2	– The national surveillance system has been further strengthened to detect both the PPR clinical outbreaks and virus circulation in domestic animals and wildlife (susceptible species) [**A1 – I1; A2 – I2, I3**]					
Q3	– **Investigations in** other susceptible species, including wildlife, is now improving the level and quality of information generated through the surveillance system [**A3 – I4**]					

➢ PPR Roadmap Table for Stage 3 Outcome 2

Please report in this Table the activities above that have been partially or not achieved at all

Activity	Timeframe	Responsible staff
Activity 1 —		
Activity 2 —		
Activity 3 —		

➥ Stage 3 – Outcome 3 (*Prevention and control system*) – A more aggressive control strategy is in place aiming at eradication and possibly supported (if feasible) by a stamping out policy (linked to a compensation scheme).

It may be possible that either (i) a whole area or country vaccination programme or (ii) a targeted vaccination programme will be implemented as part of a more aggressive control strategy. In both cases it is expected that the control policy will lead to eradication. The vaccination programme is defined according to the results of Stage 2 vaccination (Post-Vaccination Evaluation [PVE]) and continuous surveillance.

In case of (ii), an emergency preparedness and contingency response plan are now also implemented, possibly linked to a stamping-out policy, to control promptly a clinical outbreak of PPR in the infected premises and to reduce the infectious period at flock level.

Breeders are encouraged to reinforce the biosecurity measures at farm level (this may be linked to the level of compensation in the event of stamping out); biosecurity is also reinforced in live markets.

	➢ Typical activities		➢ Performance indicators
A1	— Implement vaccination campaigns in areas where virus still circulates (either in already vaccinated areas and/or in unvaccinated areas) according to the results of continuous monitoring and evaluation of the results of stage 2. All vaccinated animals will be identified at the same time.	**I1**	— Intermediate vaccination coverage (target: at least 35% of the eligible animals are vaccinated 60 days after the beginning of the vaccination campaign(which represents 50% of the final expected 70% vaccination coverage)
		I2	— Final vaccination coverage (target: not less than 70% of eligible animals are vaccinated in each campaign) Remark: vaccination coverage is expressed as the number of animals administered with the vaccine divided by the number of animals eligible for being vaccinated in the target areas/sectors)
A2	— Conduct surveillance activities and PVE with collection of data for evaluating the results of the vaccination programme and monitor the entire vaccination chain accordingly	**I3**	— Number of PVE undertaken (in order to evaluate for example the percentage of PPR clinical cases in vaccinated small ruminants populations, as an indicator of the vaccination effectiveness = number of cases in vaccinated population / total number of cases in the country) (target: one simplified PVE per year and one comprehensive PVE at key occasions (e.g. when a country foreseen to move from one stage to a stage above (see description of the PVE tool in Annex 3.4)
		I4	— Temperature registration cards are used in each point of the vaccine distribution system (target: the temperature along the cold chain is always between +2°C and +8°C. Specific procedures for managing failures in the cold chain must be part of the cold chain monitoring system.

		I5	— Immune response in the areas/sectors where the vaccination has been expanded (immune response is expressed as the percentage of animals developing a protective serological titre out of the number of animals actually administered with the vaccine (target: at least 90% of animals should have a serological titre to be considered protective at 21 or 28 days post PPR vaccination).
A3	— Develop a contingency plan in case of (ii), officially endorsed and approved by the Veterinary Authorities. The National PPR Committee will assign a group of experts (which could be supported by international experts if required) to formulate such a contingency plan.	**I6**	— Number of meetings held by the group of experts to develop the contingency plan (target: at least two in the first year after entering Stage 3)
A4	— Test the correct application of the contingency plan through field simulation exercises as part of the activities to maintain a high level of awareness	**I7**	— Number of field simulation exercises carried out in areas already recognized as cleared form the PPR virus (target: at least one simulation exercise in at least one area recognized as cleared from the PPR virus)
A5	— Carry out prompt preliminary precautionary measures once a suspicion is raised (they are withdrawn if the outbreak is not confirmed or are immediately followed up if the outbreak is confirmed)	**I8**	— Average time required from the date of suspicious to the date of notification by the Veterinary Authorities of precautionary measures (target: from suspicious raised by the owner to notification of precautionary measures the timeframe should not exceed 3 days).
A6	— Implement prompt measures to contain virus spread once an outbreak is confirmed (whether this should be based on animal movement restrictions, culling or emergency vaccination, or a combination of these, is a country policy choice)	**I9**	— Average time from the date of confirmation to the date when containment measures are applied (target: not to exceed 3 days from the date of confirmation).
A7	— Design and implement field procedures to officially close an outbreak and lift the restrictions put in place (to be done by the National PPR Committee).	**I10**	— No specific indicator is set for this activity
A8	— (Voluntary) Submit a national control programme to the OIE for official endorsement, in accordance with the provisions of the OIE *Terrestrial Animal Health Code* (Chapters 1.6. and 14.7.).	**I11**	— No specific indicator is set for this activity

• PMAT questionnaire

		Fully achieved	Partially achieved	Not achieved	Not applicable	Comments
Q1	– PVS provides evidence that the expanded vaccination programme is effective[**A1 – I1, I2; A2 – I3, I4**]					
Q2	– Any new PPR clinical outbreak – whether suspected or confirmed – is properly and timely managed [**A3 – I6; A4 – I7; A5 – I8; A6 – I9; A7 – I10**]					
Q3	– The aggressive control strategy now fully integrates the application of biosecurity measures					

➢ PPR Roadmap Table for Stage 3 Outcome 3

Please report in this Table the activities above that have been partially or not achieved at all

Activity	Timeframe	Responsible staff
Activity 1 —		
Activity 2 —		
Activity 3 —		

Stage 3 – Outcome 4 (*Legal framework*) – The veterinary legislation includes clear provisions for: (i) the compensation of small ruminants culled for disease control purposes (should stamping out be adopted as one of the control policies) and (ii) **improved bio-security in live markets and at farm level. The PPR legal framework is properly enforced.** Implementation of an identification system for small ruminants is an asset to improve their traceability and movement control.

	Typical activities		Performance indicators
A1	— Develop a procedure to compensate farmers whose animals were culled for disease control purposes. *(The National PPR Committee may appoint a Specific Working Group to develop such a procedure)*	**I1**	— Number of meetings held by the specific Working Group on compensation (*target*: at least two meetings in the first year after entering Stage 3)
A2	— Carry out studies on how to improve biosecurity in live animal markets and at farm level and how biosecurity can impact on stakeholders *(The National PPR Committee may appoint Specific Working Groups to do this)*	**I2**	— Number of meetings held by the specific Working Group on biosecurity in live markets and at farm level (*target*: at least two meetings in the first year after entering Stage 3)
A3	— Carry out feasibility studies to implement an animal identification system *(The National PPR Committee may appoint a Specific Working Group to do this)*	**I3**	— Number of meetings held by the specific Working Group on animal identification (*target*: at least two meetings in the first year after entering Stage 3)
A4	— Propose concrete amendments to update the existing legal framework conducive to supporting the new control measures foreseen in Stage 4 (compensation scheme, biosecurity , animal identification); in addition, legal provisions for suspending/stopping the vaccination are also included	**I4**	— Number of proposals submitted (no specific target)

• PMAT questionnaire

		Fully achieved	Partially achieved	Not achieved	Not applicable	Comments
Q1	– The small ruminants' owners are properly compensated for any animal which is culled for official PPR control purpose [**A1 – I1; A4, I4**]					
Q2	– Movement control of small ruminants at farm level and live markets is officially regulated and enforced [**A4 – I4**]					
Q3	– A national identification system for small ruminants is in place and allows at least to differentiate vaccinated from not vaccinated animals [**A3 – I3; A4 – I4**]					
Q4	– The aggressive control strategy now fully integrates the application of biosecurity measures [**A2 – I2**]					
Q5	– The VS implement procedures for animal identification and movement control for specific animal subpopulations as required for disease control, in accordance with relevant international standards [CC 12.A level 3)]					

➢ PPR Roadmap Table for Stage 3 Outcome 4

Please report in this Table the activities above that have been partially or not achieved at all

Activity	Timeframe	Responsible staff
Activity 1 —		
Activity 2 —		
Activity 3 —		

➥ Stage 3 – Outcome 5 (*Stakeholder involvement*) – Stakeholders are actively consulted for the compensation arrangements and are involved in the identification of their animals

Stakeholder involvement at this Stage is essential and, as in the previous stages, there is sufficient evidence that stakeholders have been duly involved in sharing control programme overall outcomes and that they have been part of the decision process to move towards eradication. Communication continues to be a key element.

➢ Typical activities		➢ Performance indicators	
A1	Establish a specific procedure (by the National PPR Committee) to address issues raised by a specific group of stakeholders concerning matters relating to PPR control/eradication that may impact on their business activities	**I1**	— Number of requests received by the national PPR Committee made by specific individual or group of stakeholders (no specific targets are set)
A2	Address specific requests from stakeholders (by the National PPR Committee, with the possible support of Working Groups)	**I2**	— Average time required by the national PPR Committee to provide a response to specific request raised by stakeholders (*target:* no more than three months should pass from the date of the request to the date of response).
A3	Distribute communication material, use media and other oral means and organise specific meetings aimed at updating all stakeholders, including development partners active in the field (e.g. NGOs) where the country stands in its national efforts towards eradication and ensure their full and sustained support	**I3**	— Number of meetings held for stakeholders (*target*: at least, one meeting at national level and possibly one meeting at regional level (Province, Directorate, district…)/year according to small ruminant populations

• PMAT questionnaire

		Fully achieved	Partially achieved	Not achieved	Not applicable	Comments
Q1	–Stakeholder involvement into the eradication process is optimal [A1 – I1; A2 – I2]					
Q2	– The communication component of the National Eradication Strategy is fully implemented [A1 – I1; A2 – I2; A3 – I3]					

➢ PPR Roadmap Table for Outcome Stage 3 Outcome 5

Please report in this Table the activities above that have been partially or not achieved at all

Activity	Timeframe	Responsible staff
Activity 1 —		
Activity 2 —		
Activity 3 —		

PMAT questionnaire to move to Stage 4 ('go-ahead Gateway')

• **PMAT questionnaire to enter Stage 3 ('Entrance Gateway')**		Yes	No	Comments
Q1	All activities of Stage 3 are successfully completed			
Q2	– the **use of vaccine is suspended** and no clinical outbreaks have been detected in the previous 12 months			
Q3	– *The country participates in the annual Regional PPR roadmap meetings**			
Q4	– *The countries does annual self-assessment of the PPR control progress using the PMAT tool**			

**(in grey colour) not mandatory but strongly encouraged*

Moving from Stage 3 to Stage 4

Minimum requirements:

1. **All activities of Stage 3 are successfully completed**
2. the **use of vaccine is suspended** and no clinical outbreaks have been detected in the previous 12 months

4. STAGE 4 – Post-eradication phase

Stage 4 Epidemiological situation

There is a body of evidence that PPR virus is no longer circulating in domestic animals within the country or zone. PPR incidence is very low (reduced to zero incidence) and limited to occasional incursion from other countries.
It is worth noting that the acceptance into Stage 4 is now clearly linked to the animal health status of the susceptible population in relation to PPR (differently from previous Stages).

Nota bene: For the purposes of the OIE *Terrestrial Code*, PPR is defined as an infection of domestic sheep and goats with PPRV (Chapter 14.7.). The official free status therefore takes into account the status in domestic animals only.

STAGE 4 FOCUS: To build evidence that, after suspension of vaccination, there is no clinical disease and no virus circulation for at least 12 additional months (after entering Stage 4)

Entry into Stage 4 means that a country will be ready to start implementing a full set of activities that should lead to its being recognised as officially free from PPR.

In Stage 4, eradication and prevention measures are based on early detection and reporting of any new outbreak occurrence, emergency response and contingency planning. Vaccination is prohibited. If emergency vaccination needs to be implemented, the country or the vaccinated zone ('zone' as defined in the OIE *Terrestrial Code*) will be downgraded to Stage 3.

STAGE 4 KEY OUTCOMES

Stage 4 – Outcome 1 (Diagnostic system) – The diagnostic activities carried out in the laboratories, while maintaining the same level of capability and performance in relation to PPR diagnosis, have been further extended to include all those diseases which may require a differential diagnosis with PPR. In addition, all material containing field PPRV is sequestrated in a well-defined secure location, under the supervision of the Veterinary Services, to avoid any PPR resurgence linked to accidental or intentional manipulations

Typical activities		Performance indicators	
A1	Produce (and keep updated) a flowchart to indicate how a suspicion of PPR is handled and (once the suspicion is withdrawn) which other diseases will be investigated	**I1**	— Number of suspicious samples submitted to the laboratory for excluding the presence of PPR virus in the same 12 months during which no clinical outbreaks have been observed (and required to enter stage 4) (*target:* no target as it depends on the country situation with regard to other small ruminants diseases*)*
A2	Train laboratory staff in differential diagnosis of PPR	**I2**	— Number of analysis undertaken to exclude PPR by identifying the involved cause of the case on those samples where PPR presence needed to be excluded (*target:* at least 90% of PPR suspicion are the object of laboratory diagnosis investigations*)*
A3	Identify, list and collate all PPRV-containing material and identify appropriate premises for its secure sequestration (in the future it may be destroyed)	**I3**	— Number of facilities in which PPR field virus-containing material can be held (*target:* no more than one facilities per country, depending on the country size*)*
		I4	— Number of site visits to those facilities to verify whether their biosafety/biosecurity conditions are adequate (*target:* at least, each facility is visited one time / year)

• PMAT questionnaire

		Fully achieved	Partially achieved	Not achieved	Not applicable	
Q1	– Most of small ruminant diseases present in the country can be diagnosed by the national laboratory network [**A1 – I1; A2 – I2**]					
Q2	– The risk of accidental or intentional mis-use of field PPRV is minimized [**A3 – I3, I4**]					

➢ **PPR Roadmap Table for Outcome Stage 4 Outcome 1**		
Please report in this Table the activities above that have been partially or not achieved at all		
Activity	**Timeframe**	**Responsible staff**
Activity 1 —		
Activity 2 —		
Activity 3 —		

Stage 4 – Outcome 2 (*Surveillance System*) – the surveillance system operates as in the previous Stage with a focus on population at higher risk

The surveillance system is robust enough to identify any animal with signs suggestive of PPR that require follow-up and investigation to confirm or exclude that the cause of the condition is PPRV.

The case definition of a suspected case may be made broader so to be able to capture health events and rapidly rule out those that may be attributed to PPR

	Typical activities		Performance indicators
A1	Organise training sessions to make field veterinarians fully aware of where the country is now in relation to the eradication process	**I1**	— Number of field veterinarians informed and trained (*target*: 100% of veterinarians in the two years after entering Stage 4)
A2	Design and implement specific studies aimed at proving that the cohort of animals born after the suspension of vaccination has not been exposed to the PPR virus (likely to be done through serology targeting the birth-cohort of animals born after cessation of the vaccination in accordance with procedures indicated by the OIE for being recognised as officially free).	**I2**	— Number of samples collected and tested in new born small ruminants (*target*: compliance with OIE requirements for official free status)
A3	Implement, when relevant, additional clinical inspection and serological testing of high-risk groups of animals following an alert, such as those adjacent to a PPRV-infected country.	**I3**	— Number of investigations undertaken after an alert (*target*: 90% of alerts are followed by appropriate investigations)

PMAT questionnaire

		Fully achieved	Partially achieved	Not achieved	Not applicable	Comments
Q1	– The national surveillance system is able to capture any PPR event in any PPR susceptible population (domestic and wildlife); susceptible wildlife species may act as sentinels indicating the spill over of PPRV from domestic sheep and goats [A1 – I1]					
Q2	– The national surveillance system provides evidence that the country is free from PPR (disease and infection) [A2 – I2; A3 – I3]					
Q3	- The country notifies within 24 hours (after confirmation) any changes in the PPR epidemiological situation or other significant events linked to PPR, OIE according to the OIE *Terrestrial Animal Health Code* [xxx]					

➢ **PPR Roadmap Table for Outcome Stage 4 Outcome 1**		
Please report in this Table the activities above that have been partially or not achieved at all		
Activity	**Timeframe**	**Responsible staff**
Activity 1 —		
Activity 2 —		
Activity 3 —		

⮑ Stage 4 – Outcome 3 (*Prevention and control system*) – Stringent preventive measures are put in place to maintain the absence of PPR outbreaks achieved at the end of Stage 3 and prevent any reintroduction; in the event of a PPR outbreak, emergency procedures are implemented

At this Stage, any true outbreak of PPR is treated as an emergency and consequently the contingency plan (prepared in Stage 3) is immediately activated to eliminate the virus as soon as possible.

Stringent movement control and quarantine measures are applied at borders. Risk analysis is conducted on a regular basis and whenever justified by new factors that may jeopardize the free status. An emergency vaccination programme (combined or not with a stamping-out policy) may also be implemented in the worst case scenario, but will automatically downgrade the country or vaccinated zone to Stage 3

➢ Typical activities		➢ Performance indicators	
A1	In the event of an outbreak, implement the provisions of the contingency plan	**I1**	— Number of days required to manage a PPR clinical outbreak after it has been confirmed (*target*: less than one week)
		I2	— Number of PPR secondary outbreaks (*target*: 0 secondary outbreaks)
A2	Increase collaboration with the Customs services at borders to optimise border control	**I3**	— Number of joint training programmes in coordinated border management organized (*target*: at least, one veterinarian and one custom officer per Border Inspection Post in the country have attended the training on CBM)
A3	Conduct risk analysis on a regular basis	**I4**	— Number of risk analysis conducted with regards to PPR (*target*: as often as required)
A4	(voluntary) Submit a dossier to the OIE requesting official recognition of PPR free status, in accordance with the provisions of Chapters 1.6. and 14.7. of the OIE *Terrestrial Animal Health Code*		No specific indicator

• PMAT questionnaire

		Fully achieved	Partially achieved	Not achieved	Not applicable	Comments
Q1	– The Rapid Response implemented prevent any occurrence of secondary PPR outbreak (primary prevention) [**A1 – I1**]					
Q2	– The risk of introduction of PPR is fully characterized and addressed (secondary prevention) [**A2 – I2; A3 – I3**]					

Q3	– The use of PPR vaccines are restricted to the emergency management of confirmed PPR outbreaks under the authority of the Veterinary Services (in particular, PPR vaccines are not used to protect animal populations from other morbillivirus infections) [**A1 – I1**]					
Q4	– The VS can establish and apply quarantine and border security procedures based on international standards, but the procedures do not systematically address illegal activities relating to the import of animals and animal products [CC II.4 level 3]					
Q5	– The VS have an established procedure to make timely decisions on whether or not a sanitary emergency exists. The VS have the legal framework and financial support to respond rapidly to sanitary emergencies through a chain of command. They have national contingency plans for some exotic diseases that are regularly updated/tested [CC II.6 level 4]					

➢ **PPR Roadmap Table for Outcome Stage 4 Outcome 3**

Please report in this Table the activities above that have been partially or not achieved at all

Activity	Timeframe	Responsible staff
Activity 1 —		
Activity 2 —		
Activity 3 —		

Stage 4 – Outcome 4 (*Legal Framework*) – <u>The legal framework fully supports possible aggressive measures needed for prompt eradication of PPR in the country.</u>

The national legislation will require a further improvement to include protective measures on imports of live animals to mitigate the risk of introduction.

The review of the legal framework may require at this Stage consultation with international experts to ensure that the legal requirements for importers of livestock and livestock products (that may carry PPR virus) are in compliance with the SPS Agreement (should the country be a WTO member).

Legal texts will also include provisions for additional measures, notably in the case of free status (e.g. establishment of a containment zone in accordance with OIE requirements).

Typical activities		Performance indicators	
A1	Upgrade the legal framework, notably to ensure that it will include the necessary preventive and control measures foreseen in Stage 4 (in particular, exclusion measures aimed at avoiding introduction of PPR virus from abroad).	**I1**	Number of amendments included (no specific target)

PMAT questionnaire

		Fully achieved	Partially achieved	Not achieved	Not applicable	Comments
Q1	– The legal framework includes specific measures for emergency response for PPR [**A1 – I1**]					
Q2	– The legal framework includes provision for emergency funding in case of PPR [**A1 – I1**]					
Q3	– The legal framework includes measures aimed at avoiding importation of live animals and goods which may carry the PPR virus [**A1 – I1**]					
Q4	– Funding arrangements with adequate resources have been established, but in an emergency situation, their operation must be agreed through a non-political process on a case-by-case basis [CC I.9 level 4]					

PPR Roadmap Table for Outcome Stage 4 Outcome 4

Please report in this Table the activities above that have been partially or not achieved at all

Activity	Timeframe	Responsible staff
Activity 1 —		
Activity 2 —		
Activity 3 —		

➥ Stage 4 – Outcome 5 (Stakeholder involvement) – Stakeholders are fully aware of the health status of the country and are fully committed to promptly collaborate should an emergency occur.

Stakeholder involvement at this Stage is essential not only in relation to the formulation of a legislation framework, as indicated in previous outcome, but also in relation to other activities. It is crucial that if a suspicion of PPR arises at this Stage all stakeholders are fully aware of the consequences this may have, thus and ensuring their full collaboration. Communication remains a key element.

➢ Typical activities		➢ Performance indicators	
A1	Organise meetings with groups of stakeholders to acquaint them with the status of the country and ensure that they are aware that any suspicion of PPR is to be treated as an emergency	**I1**	– Number of awareness meetings organized with livestock keepers (*target*: a least, one meeting at national level and possibly one meeting at regional level(Province, Directorate, district…) according to small ruminant populations in the first year after entering Stage 4)
A2	Prepare and disseminate informative material in order to maintain a high level of awareness among livestock keepers and other stakeholders	**I2**	– Number of Field Veterinary Unit where the informative material is distributed (*target*: 100% of the FVU have received the material)

• PMAT questionnaire

		Fully achieved	Partially achieved	Not achieved	Not applicable	Comments
Q1	– The stakeholders operating in the small ruminant sector fully contribute to the maintenance of the country free status [A1 – I1; A2 – I2]					
Q2	- The VS notify in compliance with the procedures established by the OIE (and the WTO SPS Committee where applicable) [CC IV.6 level 3]					

➢ PPR Roadmap Table for Outcome Stage 4 Outcome 5

Please report in this Table the activities above that have been partially or not achieved at all

Activity	Timeframe	Responsible staff
Activity 1 —		
Activity 2 —		
Activity 3 —		

Moving beyond Stage 4

Minimum requirements:

1. **All activities of Stage 4 are completed**
2. There is no evidence of clinical disease and no evidence of virus circulation both in domestic animals and wildlife for 24 months.
3. A **dossier is mounted** to fulfil the requirement specified in the OIE TAHC to request an official PPR free status.
4. Once the official PPR free status is obtained the country is out of the pathway

ANNEX – Correspondence table between the PPR Stages and the OIE PVS Critical Competences (level of advancement)

PPR Stages / OIE PVS Critical Competences		Stage 1 (Assessment)	Stage 2 (Control)	Stage 3 (Eradication)	Stage 4 (Post-eradication)
CC I.2.A	Professional competencies of veterinarians	**3**			
CC I.3	Continuing education (CE)	**3**			
CC II.1.A	Veterinary laboratory diagnosis – Access to veterinary laboratory diagnosis	**2**			
CC II.1.B	Veterinary laboratory diagnosis – Suitability of national laboratory infrastructures	**3**			
CC II.3	Risk analysis	**3**			
CC. II.5.B	Epidemiological surveillance and early detection – active epidemiological surveillance	**3**			
CC III.2	Consultation with interested parties	**3**			
CC III.3	Official representation	**3**			
CC III.4	Accreditation / authorisation / delegation	**3**			
CC III.5.A	Veterinary Statutory Body – authority	**3**			
CC III.5.B	Veterinary Statutory Body – capacity	**3**			
CC IV.1	Preparation of legislation and regulations	**3**			
CC I.1.A	Professional and technical staffing of the VS – Veterinarians and other professionals		**3**		
CC I.1.B	Professional and technical staffing of the VS – Veterinary para-professionals and other technical staff		**3**		
CC I.2.B	Competencies of veterinary para-professionals		**3**		
CC I.6.A	Coordination capability of the VS – Internal coordination (chain of command)		**3**		

CC I.6.B	Coordination capability of the VS – External coordination		**3**		
CC I.7	Physical resources		**3**		
CC I.8	Operational funding		**4**		
CC I.11.	Management of resources and operations		**4**		
CC. II.5.A	Epidemiological surveillance and early detection – passive epidemiological surveillance		**3**		
CC II.7	Disease prevention, control and eradication		**3**		
CC II.8.B	Ante- and post mortem inspection at abattoirs and associated premises		**4**		
CC II.12.A	Identification and traceability – Animal identification and movement control		**3**		
CC III.1	Communication		**4**		
CC III.6	Participation of producers and other interested parties in joint programmes		**3**		
CC IV.2	Implementation of legislation and regulations and compliance thereof		**3**		
CC IV.7	Zoning		**3**		
CC II.2	Laboratory quality assurance			**2**	
CC II.12.A	Identification and traceability – Animal identification and movement control			**3**	
CC I.9	Emergency funding				**4**
CC II.4	Quarantine and border security				**3**
CC II.6	Emergency response				**4**
CC IV.6	Transparency				**3**