



World  
Organisation  
for Animal  
Health



Food and Agriculture  
Organization of the  
United Nations

# MEETING OF THE RINDERPEST JOINT ADVISORY COMMITTEE

Paris, 8 – 9 November 2016



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### 1. Welcome and Introduction

The meeting was opened by the Chair, Dr Junaidu Maina, who welcomed the participants and acknowledged the departure of Drs Gordon Abraham and Beverly Schmitt and their valuable contributions to the JAC over the course of four years. He also introduced Drs Alejandro Costa and Greg Smith as the new members to the JAC and remarked their great potential to bring additional expertise to the JAC. He thanked the secretariat for organizing the meeting and the OIE for hosting it.

Dr Matthew Stone, OIE Deputy Director General, also greeted the participants and acknowledged the effort done by all in order to either be present in Paris or joining in through videoconference in another time zone. He mentioned the expected outcomes of the meeting, namely the review of CIRAD's application, further discussion on the development of the International Preparedness Plan (IPP) and rinderpest vaccine reserves along with the status of efforts concerning sequestration and destruction.

Dr Juan Lubroth, FAO Chief Veterinary Officer, took the opportunity to bring some insights on the GF-TADs meeting that was taking place at OIE HQ, namely that rinderpest was the first animal disease to benefit from a global eradication programme and how this can be used as an example for the eradication of other diseases. He mentioned that there was still work to be done on rinderpest and that a strategy needs to be in place to limit the number of applications for Rinderpest Holding Facilities (RHF). As a final point he encouraged the JAC to give consideration to the work on the development of an IPP.

#### 1.1. Introduction of new members

Two new members were welcomed during the meeting:

Dr Alejandro Costa, team lead on vaccine stockpiles and control of epidemic diseases at the World Health Organization (WHO), thanked the committee, saying he was very pleased to join and hoped to add value to the IPP development due to his experience in smallpox eradication efforts.

Dr Greg Smith, who is the biorisk manager and Chair of the Institutional Biosafety Committee at CSIRO - Australia, has gathered extensive experience in biosecurity and biosafety. Dr Smith has previously participated in site inspections for four FAO-OIE Rinderpest Holding Facilities (RHF). He joined the meeting from Australia via videoconference. Dr Smith thanked the JAC, OIE and FAO for the invitation and said he hoped to contribute to its activities.

#### 1.2. Adoption of the agenda

The draft agenda was adopted with a modification – the revision of the *OIE Manual of Diagnostic Tests and Vaccines* (Manual) chapter was included as an additional item on Wednesday morning, under the OIE activities section (Appendix I).

The list of participants can be found in Appendix IV.

### 2. Applications for RHF

#### 2.1. CIRAD (France)

Dr Geneviève Libeau left the room during the review of the site inspection dossier, to avoid any conflict of interest.

CIRAD's application dossier for Category A RHF was reviewed by the Committee in 2014. After a delay due to administrative circumstances at CIRAD, the site inspection was conducted in July 2016.

The Committee unanimously agreed on approving CIRAD, pending compliance with corrective actions recommended by the site inspection team, within period of six months. The OIE and FAO will follow up closely and cooperate with CIRAD to ensure that all the conditions are met.

## **2.2. Razi Vaccine Institute (RVI- Iran)**

The application of RVI for RHF Category B was reviewed by the Committee during their last meeting when additional documentation was requested to complete the initial evaluation process.

RVI was required to continue to develop the national contingency plan and update the biosafety manual. The submitted documentation required further improvement. FAO offered to assist in developing their contingency plan, if requested by Iran.

Further, the biosafety manual and the contingency plan are to be further reviewed by the JAC. The application was, thus, pending on these last two items to be addressed.

The secretariat will formally contact the RVI with the outcome of the review and the pending actions.

## **3. Current situation of RHF's**

### **3.1. FAO-OIE joint designation letters**

The secretariat noted the official designation of the RHF's for the Pirbright Institute (UK) and FADDL (USA) has been finalized but pending those for AU-PANVAC (located in Ethiopia) and the two facilities of NIAH (Japan) caused by delays in reconciling the legal clauses put forward by FAO and OIE in the Terms and Conditions.

### **3.2. RHF's annual report**

OIE co-secretariat presented the summary of the 2015 annual reports from RHF's. RVCM stored in RHF's categories A and B was thoroughly reviewed by the Committee members, as well as the RHF's' activities. It was noted that the Pirbright Institute report should be revised by adding more information on virus strains in the inventory and reduce the number of aliquots per virus strain. It was also noted that the Institute sent out RVCM material to non-RHF without prior notification or approval by FAO and OIE. To this effect, a formal letter will be addressed to the UK CVO requesting adherence with the RHF mandate

### **3.3. Pending applications – China**

An FAO-OIE joint letter was sent to China to acknowledge its application for RHF Categories A and B, and recommended the site inspection mission to be conducted after its BSL 3 laboratory is certified in early 2017.

## **4. Action items from last meeting**

- FAO to explore support from AU to ensure that AU-PANVAC *receives further training and assistance in the development of SOPs and Safety Manuals in the event that it should be required to manipulate RVCM*

The OIE co-secretariat informed the Committee that, since the 9<sup>th</sup> JAC meeting in April 2016, the OIE has been trying to put in place a twinning project between CSIRO (Commonwealth Scientific and Industrial Research Organisation, Australia) and PANVAC, with the support of a donor (Global Partnership Programme, Canada), so that the facility (for Category A) will comply with the corrective actions recommended by the site inspection early 2015. The Committee agreed to give PANVAC extra 6 months (June 2017) to comply with the corrective actions.

- OIE to send revised chapter to the JAC for their comments and suggestions as it comes available (chapter 2.1.19 of the OIE *Terrestrial Manual*)

The JAC was asked to consider the draft chapter, with special focus on the diagnostic techniques table. The latter was in need of an update, considering the eradication of rinderpest and the prohibition to use most of the diagnostic techniques. Specifically, JAC noted that majority of suggested diagnostic tests are not commercially available and therefore could potentially confuse the manual users. Dr Libeau would lead this task and provide her suggestions, as the responsible expert for the Reference Laboratory for Rinderpest for the OIE and FAO, together with the other Committee members' comments to the OIE by December 2016.

- OIE to add to the mandate for Category B *with prior approval of FAO and OIE* to the line on quality control.

OIE would deal with this item and seek approval from the World Assembly ask for its approval at the next OIE World Assembly for Delegates (May 2017).

- FAO and OIE Secretariat should inform China on the current status of their RHF request.

Completed. China has been informed and it was recommended a single site inspection covering both categories A and B.

- FAO and OIE should define clearly the change in bio-security level for vaccine seeds and stocks, OIE should suggest an update to the current resolution. *This would mean an update to Resolution No. 18 (GS 79 2011).*

The OIE co-secretariat informed the JAC that their recommendations had been taken into consideration and that this subject was pending the review of the Biological Standards and Scientific Standard Commissions to be included in an updated OIE Resolution.

- Drs G. Libeau and M. Baron, the representatives from the OIE and FAO Reference Laboratories for Rinderpest , to update the table of diagnostics in the chapter on rinderpest of the Manual

Dr Libeau would lead this task. The draft chapter was available for Committee members to provide their comments to the OIE until December 2016. (cf. point 2 above)

- FAO and OIE to update the application form for research a statement so that only a RHF can apply to undertake the manipulation of RVCM

Completed.

- FAO and OIE to decide on the approval of Japan's vaccine production application and to request maintaining expired vaccine batches in order to build up a regional vaccine reserve

Completed, approved.

- FAO and OIE to inform Canada on their research proposal

Completed, Canada was informed that the proposal was denied.

- Dr Beverly Schmitt, former member of JAC, will provide the final answer on the issue of data sharing from FADDL (USA) with other RHFs.

Completed, it was confirmed that they would share information through an email communication with Dr Schmitt dated 22/09/2016.

- FAO and OIE to prepare an SOP on heat inactivation of low risk material (sera).

FAO will contact the OIE suggesting a change on the RVCM (rinderpest virus containing material) definition, regarding sera, providing scientific justifications. The Committee pointed out that the SOP

ought to focus solely on heat-treated sera and plasma. The title of the SOP prepared by FAO would be changed to *Heat treatment of sera with inactivated rinderpest virus*. The FAO will ask the JAC to provide comments on the SOP as well as indicating whether or not they recommend a change in the definition. A change in the definition will also require the review of the appropriate OIE Specialist Commissions as well as eventual adoption by the World Assembly of OIE Delegates as the definition of RVCM is in the *Terrestrial Animal Health Code*.

## 5. International Preparedness Plan (IPP)

Dr Lee Myers, from the Crisis Management Centre – Animal Health (CMC-AH), FAO, attended the meeting to present the current status of development of the IPP. Dr Myers is continuing the work done by Dr Ed Arza (CMC) –who produced the template for animal disease national contingency plan that may include rinderpest. Dr Myers addressed issue 4 of the Rinderpest roadmap – *National contingency plans and the IPP*. She reported on the progress made thus far by FAO headquarters and presented a milestone/timeline of activities to complete over the next 1.5 years. The JAC also discussed the draft outline of the IPP table of contents and provided valuable feedback for the future Technical Meeting.

The Committee showed concern about the aggressive timeline associated with the milestones, considering that the IPP will include resources prioritisation that might not have legal support in some countries. Moreover, it will likely require an extended period to reach an international agreement on an IPP for an eradicated disease. It was also said that the Technical Meeting should focus on the IPP development, and that emergency preparedness activities should rely on additional expertise that would be hired when deemed appropriate. The first version of the plan will be written by an external consultant hired by the FAO. Dr Alejandro Costa and Prof Mo Salman will represent the JAC on the Technical Meeting that develops the IPP (FAO).

The Committee discussed the importance of having countries' political support by engaging the government and media. Also, after a reference to the lack of funding available during the Ebola emergency, it was agreed that having a rinderpest emergency fund would be crucial to ensure prompt and effective response. The issues were raised on how to assure the quality of diagnostic tests and how the JAC should coordinate closely with the Technical Meeting attendants to provide recommendations. Required Technical meeting members' skills and their geographical association, IPP financial support, and vaccine deployment logistics were also discussed.

The IPP draft version will be shared at the next JAC meeting, in March 2017, and the full plan will be finalized by the end of 2017. JAC requested to develop a set of emergency response guidelines that can be used to cover the time gap from now to the completion of the plan, in order to be ready for any potential reoccurrence.

### 5.1. Rinderpest Vaccine Reserves

In parallel with the Technical Meeting on IPP, a roster of experts will be summoned to be part of Technical meeting on rinderpest vaccine reserves (RVR). The OIE co-secretariat indicated that it had the funding to hold a meeting for a group of experts to look at this issue. The OIE co-secretariat will draft the concept note for the RVR and share it with the FAO co-secretariat.

Some insights on vaccine supply were brought to the Committee – the most difficult task is to be sure that stocked vaccines arrive to the target populations on time of emergency. Therefore, ensuring emergency funds is a crucial task.

The Committee agreed that it would be challenging to have the IPP and RVR strategy ready by June and that it is urgent to draft the concept notes for these activities.

We should use, as valuable examples, the IPP that WHO has developed for smallpox, the development strategy of FMD vaccine stockpiles in north America (United States of America, Canada, and Mexico), and Oceania (Australia and New Zealand), as well as keeping in mind what the countries in risk for PPR were doing in terms of preparedness planning. It was mentioned the need for the development of a reliable mechanism for confirmation of suspect cases, in order to trigger vaccine stocks release, distribution and resource allocation.

## **6. Sequestration and destruction efforts**

### **6.1. FAO activities**

Dr Metwally updated the Committee about the recent FAO sequestration and destruction missions to Nigeria, Kenya and Senegal, as well as the most recent visit to Japan to discuss regional stockpile vaccine production for emergency preparedness purposes.

#### **6.1.1. Sequestration and destruction in Africa**

The FAO co-secretariat coordinated missions in May 2016 to Nigeria, Kenya and Senegal with the objectives to (a) correctly package RVCM that were to undergo sequestration in AU-PANVAC and, if possible, witness their dispatch to Ethiopia; (b) to destroy in a safe and validated manner remaining RVCM in the laboratory; (c) deliver biosafety and biorisk management training to staff; (d) to inform and engage the government in the raising community awareness activity targeting rinderpest and other TADs. Additionally, the mission to Kenya allowed to discuss the disease spread model developed by Los Alamos and to finalize the advocacy movie for virus destruction and sequestration. The movie developed by FAO was played during the meeting; The Committee complemented the FAO on their concert effort in reducing the stock of RVCM. The advocacy video can be found <https://youtube/EUpRaoCPiOM>.

Dr Metwally informed the Committee that the FAO delegation took the opportunity to visit AU-IBAR headquarter in Nairobi. The development of a continental contingency plan and the execution of a simulation exercise at the Horn of Africa were discussed and agreed on by the director of AU-IBAR.

#### **6.1.2. Mission to Japan**

The objective of this FAO mission was to assess the country's capability of increasing vaccine production and to establish a strategic vaccine reserve for Asian countries. Given that Japan has the only facility in the world that is producing rinderpest vaccine according to its national legislation, and that it has a designated RHF for vaccine production and storing manufactured vaccines, FAO is asking Japan to produce more vaccine, up to 500,000 doses yearly, as well as to extend the shelf life of the product currently held. To support Japan the FAO can provide storage freezers.

During the mission, FAO proposed that Japan submits a research proposal to the OIE and FAO, for JAC's consideration, on testing cross neutralization between LA-AKO and RBOK vaccines.

Japan has accepted to consider these proposals.

As a side note, during the JAC meeting it was noted that the chapter on rinderpest in the OIE Manual still refers to the use of rinderpest susceptible cattle for testing quality of vaccines. JAC members discussed the potential risk of the vaccine virus reversing its virulence and agreed it is very low. Having said that, the JAC noted new methods should be explored as an alternative to using live animals to test for vaccine effectiveness.

#### **6.1.3. Other countries**

The FAO representative reported that FAO was in contact with South Korea, Canada and South Africa to discuss the destruction of their RVCM. South Korea agreed to destroy their RVCM and was provided by the SOPs to assist with the process, Canada decided to destroy some of their stock and transfer minimum stock to the RHF in the US to sequence then destroy.

It was also discussed among the Committee members the potential of hosting a simulation exercise in India in support of the IPP, if enough political cooperation was gathered. India presents itself as a great success story, having been the first country to declare eradication. FAO offered to provide funding and assistance for this activity and is waiting to hear back from contacts in India.

It was mentioned that Russian Federation has been officially approached by FAO repeatedly to advocate for removal of their RVCM stocks or become a RHF. Russian Federation remains undecided.

Germany has recently destroyed most of its RVCM; keeping some RNA for diagnostic purposes. The JAC decided for the need of communicating to Germany that also the RNA needs to be destroyed, to

comply with FAO and OIE resolutions

## **7. Strategy to reduce number of facilities holding RVCM**

Since the *International Meeting on Maintaining Global Freedom from Rinderpest* hosted by FAO in January 2016, a few more countries have decided to destroy their RVCM. This information will be verified through the OIE annual country reports for 2016.

However, there are still a number of facilities that are undecided as to whether or not to destroy or ship their material to a RHF. The OIE and FAO have received RHF applications from other members there may be more in the future. In three OIE resolutions (No. 18 GS79 2011, No. 33 GS80 2012, and No. 23 GS82 2014) Member Countries have agreed to have a limited number of such facilities. The Committee members agreed that based on the smallpox experience, it is not desirable to have more RHF, even if the applicants comply with all the requirements. The discussion on this topic proceeded, and a strategy for handling new applications was proposed. Perhaps with the IPP in place, together with the strategic vaccine reserve, a necessary back up will be given to countries, so they will feel more comfortable to let go of their holdings.

All agreed that Japan was a great role model for showing potential applicants the dimension of the investment and commitment that comes with being approved as a RHF.

The Committee members stated that applicant countries and RHF hosting countries should be aware of 1) the high cost associated with the application and maintenance of RHF status, 2) that the bar for managing biorisk is heightened for keeping material from an eradicated disease, especially when the country could be the source of recurrence of rinderpest outbreaks 3) the mandate and requirement of FAO-OIE re-evaluation is every three years, 4) updates of requirements for RHF in accordance with advancement of technology and changes in risk factors.

It was unanimously agreed that hosting another advocacy meeting to convince countries to get rid of their RVCM and discourage them to apply for RHF may be very beneficial at this stage. The timing and location of such a meeting has yet to be determined.

## **8. OIE activities**

### **8.1. RVCM outside of RHF**

The OIE co-secretariat presented the current situation of RVCM held outside of RHF, according to the Electronic Rinderpest Reporting System survey of 2015. The Committee members were pleased to realize the success of the efforts undertaken to date to destroy or sequester RVCM.

The FAO co-secretariat took this opportunity to give an overview of ongoing negotiations with each of the remaining countries holding RVCM.

It was also noted that while countries are undertaking efforts to destroy what would be considered to be virulent material, there are still holdings of viral RNA kept for diagnostic purposes. Countries should be reminded that the definition of RVCM includes RNA and that only RHF can apply to manipulate RVCM. Finally, due to the upcoming changes to the rinderpest chapter in the OIE Manual, laboratories that are not Reference Laboratories for rinderpest or RHF could only use RT-PCR methods with established primer sets. Therefore, the JAC recommended following up with countries that continue to hold materials such as RNA or cDNA copies of RNA to remind them of the definition and their commitments to destroy such material.

### **8.2. Rinderpest virus tracking system**

The OIE representative informed the JAC that the OIE was about to release a call for tender to find an adequate service supplier who could assist in creating a web-based, secure database for RHF to report and update their holdings in real time. This database would be accessible by the OIE and FAO. A Committee member suggested that data sharing among the RHF would be helpful to decrease RVCM by showing duplicated samples held in several RHF, and also suggested that RHF should clarify the history and/or description of each sample in this context.

### **8.3. Twinning project**

The OIE representative let the participants know that a twinning project between AU-PANVAC and CSIRO was under negotiation and a scoping visit would take place later this year or early in 2017.

### **8.4. Update to OIE Resolutions**

The OIE representative also mentioned the updates to OIE Resolutions no. 18 (GS79, 2011) and 23 (GS82, 2014), with regards to changing the definition of Category B RHF and vaccine quality control, respectively. On the first case, the resolution would no longer mention approved BSL 3 facility, but instead approved RHF. On the latter, the words *with prior approval from the OIE and FAO* would be added to the point about vaccine quality control testing.

### **8.5. Other updates**

The OIE representative also gave an update on the status of the “sequencing and destruction” projects underway at CIRAD and the Pirbright Institute; both projects were expected to be completed in April and May 2017 respectively.

## **9. FAO communication and advocacy activities**

Mr Fitsum Habtemariam joined the meeting through videoconference, from FAO Headquarters in Rome, Italy. He presented FAO’s latest activities in terms of communications and advocacy – showed the participants the new flyers, a twitter account, online content, as well as the video from the mission in Kenya. He also noted that the FAO selected and hired Communications Officers for working in close contact with communities in five African countries. In addition, the FAO conducted a need assessment survey in three African countries before developing the materials. They plan to finish the materials by the end of November and to have them in the field in March.

The OIE representative pointed out that it was very important for the OIE to learn about the FAO communications activities, as the OIE also has funding for advocacy and communications for rinderpest. It was crucial to coordinate the activities, in order to fill in the gaps and to prevent duplication of content. The OIE co-secretariat would be in contact with Mr Habtemariam on this subject.

The rinderpest history book came up as a pending project that was going to move forward. The FAO representative asked the JAC members about their interest and availability to contribute to a chapter and noted that the deadline is February 2017.

## **10. Update of the roadmap**

The roadmap was updated. (Appendix II)

## **11. Action items from the 10<sup>th</sup> meeting**

The action items were set. (Appendix III)

## **12. Other issues**

It was tentatively agreed that the next JAC meeting would take place in Rome, on the 22<sup>nd</sup> and 23<sup>rd</sup> March 2017.

Appendix I

**MEETING OF THE RINDERPEST JOINT ADVISORY COMMITTEE**  
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**Agenda**

| <b>Tuesday<br/>November 2016</b> | <b>8<sup>th</sup><br/>Item</b>   | <b>Speaker/Chair</b>  |
|----------------------------------|--|---|
| 9:00 – 9:20                      | Introduction and Welcoming new JAC members<br>Opening remarks<br>FAO and OIE expectations for JAC (priorities for rinderpest activities in the next phase)   | J Maina<br>DG or DDG of the OIE<br>Samia Metwally and<br>Tianna Brand |
| 9:20 – 9:30                      | Adoption of the agenda   |   |
| 9:30 – 9:50                      | Current situation of RHF endorsement and annual reports  | FAO/OIE   |
| 9:50 – 11:30                     | Review of the inspection report for CIRAD G. Smith to join by TC/Skype   | D Ulaeto  |
| 11:30 – 11:45                    | <i>Coffee break</i>  |   |
| 11:45 – 12:15                    | Action items from the last meeting   | J Maina   |
| 12:15 – 13:30                    | <i>Lunch break</i>   |   |
| 13:30 – 14:30                    | International preparedness plan  | Lee Myers (FAO)   |
| 14:30 – 14:45                    | <i>Coffee break</i>  |   |
| 14:45 – 16:00                    | Update on pending applications for RHF's<br>– Iran<br>– China<br>Expected applications for RHF's   | FAO/OIE   |
| 16:00 – 18:00                    | Sequestration and destruction efforts<br>– FAO Activities; sequestration missions and rinderpest strategic vaccine reserve in Japan<br>– Retrospective presentation on the adoption of resolutions, JAC recommendations and Member Countries' progress<br>– OIE Member Country annual reports<br>– Germany, Netherlands, India, South Africa | FAO/OIE   |

| Wednesday<br>November 2016 | 9 <sup>th</sup> | Item  | Speaker/Chair         |
|----------------------------|-----------------|---|-----------------------|
| 9:00 – 9:15                |                 | Summary of day 1  | J Maina               |
| 9:15 – 10:00               |                 | Strategy to reduce number of RHF's <ul style="list-style-type: none"> <li>– Rinderpest International Preparedness Plan</li> <li>– Rinderpest vaccine strategic reserves (RVSR)</li> </ul>   | G Viljoen and A Costa |
| 10:00 – 11:00              |                 | OIE activities since last meeting <ul style="list-style-type: none"> <li>– AU-PANVAC twinning project</li> <li>- Rinderpest virus tracking system</li> <li>- Updates to resolutions Nos. 18 (GS79 2011) and 23 (GS82 2014)</li> <li>- Revised Manual Chapter</li> </ul> | OIE                   |
| 11:00 – 11:15              |                 | <i>Coffee break</i>   |                       |
| 11:15 – 12:00              |                 | FAO communication and advocacy activities   | FAO via skype         |
| 12:00 – 12:45              |                 | Update Rinderpest Roadmap   | All                   |
| 12:45 – 13:30              |                 | Other issues<br>Meeting summary and dates for the next meeting  | All<br>J Maina        |

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**Roadmap**  
**Rinderpest Post-Eradication Activities**

|   | Activity   | Responsible   | Starting date             | Expected completion date | Outcome   | Remarks   |
|---|--|---------------|---------------------------|--------------------------|---|---|
| <b>1. Rinderpest holding facilities (RHF)</b> |  |               |                           |                          |   |   |
| 1.1   | Develop Application form   | FAO, OIE, JAC | Oct 2012                  | April 2013               | Used for UK, US, Japan, PANVAC and CIRAD applications | Requires update to align with the facility mandate. See 1.4 |
| 1.2   | Develop criteria and checklist for reviewing applications                | JAC           | Dec 2012                  | April 2013               |   | Completed   |
| 1.3   | Open application process to OIE/FAO Ref Labs and PANVAC                  | FAO, OIE      | May 2013                  | Feb 2014                 | All applied   | Completed   |
| 1.4   | Update of application form   | JAC           | March 2015/<br>April 2016 |                          | Completed Feb 2016                                    | Completed; two revisions                                    |
| 1.5   | Guidelines and criteria for inspecting facilities (inspection checklist) | FAO,OIE, JAC  | March 2013                | Nov 2014                 |   | Completed   |
| 1.6   | Operational guidance for designation of RHF                              | FAO, OIE      | Nov 2014                  | Dec 2014                 | Completed   |   |

|                               | Activity  | Responsible   | Starting date | Expected completion date | Outcome   | Remarks                       |
|-------------------------------|---|---------------|---------------|--------------------------|---|-------------------------------|
| 1.7                           | Form for RHF annual report                          | JAC           | Jan 2015      | March 2015/Dec 2016      | Jan 2015 sent to RHF's  | Completed                     |
| 1.8                           | Conduct site inspection for first five applications | FAO, OIE      | Jan 2015      | Before May 2014          |   | Completed                     |
| 1.9                           | Review submitted paper applications                 | JAC           | Oct 2013      | Ongoing                  | 7 RHF's approved, 3 new applications in progress  |                               |
| 1.10                          | FAO and OIE facility designation                    | FAO, OIE      | May 2015      | Ongoing                  | OIE designation has been finalized for 5 RHF's.<br>4 official designations by FAO and OIE completed | OIE (May 2015)<br>FAO ongoing |
| 1.11                          | Facility re-approval                                | OIE, FAO      | May 2018      |                          |   |                               |
| 1.12                          | Open application to biocontainment labs             | FAO, OIE      |               | Completed                |   |                               |
| <b>2. Research using RVCM</b> |   |               |               |                          |   |                               |
| 2.1                           | Research application form                           | JAC, OIE, FAO | Nov 2013      | Jan 2014/April 2016      |   | Completed; two revisions      |
| 2.2                           | Criteria for reviewing application                  | JAC, OIE, FAO | Nov 2012      | Jan 2013                 |   | Completed                     |

|  | Activity  | Responsible        | Starting date | Expected completion date | Outcome  | Remarks                                      |
|--|---|--------------------|---------------|--------------------------|--|--|
| 2.3  | Review proposals submitted to OIE and FAO                     | JAC                | Jan 2013      | Ongoing                  | Five projects reviewed by JAC and approved by FAO and OIE. One new application from non RHF received |  |
| 2.4  | Approval of research proposals                                | FAO, OIE           |               | Ongoing                  | Five approved  |  |
| 2.5  | Review reports of research project on a regular basis         | JAC                |               | Ongoing                  | One report received  |  |
| 2.6  | Completion of research project and submission of final report | Research Institute |               | Ongoing                  | One final technical report received  | One research project completed and published |
| 2.7  | Review outcome of project and review next steps if any        | JAC                |               | Ongoing                  | No next steps necessary  |  |
| <b>3 Rinderpest virus containing material (RVCM) destruction and sequestration (DAS)</b> |   |                    |               |                          |  |  |
| 3.1  | Establish database holding RVCM inventory at country level    | OIE                | June 2013     | Nov 2013                 |  | Completed                                    |
| 3.2  | Standard operating procedures for DAS                         | JAC, FAO, OIE      | June 2012     | April 2016               | Three SOPs have been completed. One draft SOP (receipt and dispatch ) for review                     | Reviewed by JAC                              |

|     | Activity   | Responsible | Starting date | Expected completion date | Outcome   | Remarks   |
|-----|--|-------------|---------------|--------------------------|---|---|
| 3.3 | Support countries in DAS   | FAO         | Feb 2015      | June 2016                | Botswana and Sudan, Nigeria, Senegal and Kenya are finalized                    | Assisting Canada and South Korea  |
| 3.4 | Develop disease spread risk model                                      | FAO         | Dec 2014      | June 2016                |   | Was demonstrated in Kenya. Publication is underway  |
| 3.5 | Offer support to DAS targeting countries known to hold RVCM            | FAO         | July 2013     | Ongoing                  | Botswana, Nigeria, Senegal, Kenya, Switzerland, Germany and Sudan are completed | Taipei and S. Korea are in the process of destroying their virus. Canada to transfer their virus to Plum Island |
| 3.6 | Engage with countries that did not respond to surveys in 2010 and 2011 | FAO, OIE    | March 2013    | Ongoing                  | A list of countries is already started  | 8 countries to be re-checked (FAO is on it)   |
| 3.7 | OIE Member Countries report on status of RVCM                          | OIE         | Nov 2013      | Annually                 | First report completed May 2014   |   |
| 3.8 | Report to OIE World Assembly on global status or RPV stocks            | OIE         | May 2014      | Annually                 |   |   |

|   | Activity  | Responsible   | Starting date | Expected completion date | Outcome   | Remarks  |
|---|---|---------------|---------------|--------------------------|---|--|
| 3.9   | Identify countries needing support for RVCM D&S   | FAO           | Jan 2015      |                          | African countries identified during Sharm al Sheikh regional meeting and Rome meeting |  |
| 3.10  | List of rinderpest virus prototype and vaccine strains  | JAC/OIE       | June 2015     | Dec 2015                 | A list of these countries is under construction                                       | From OIE virus database                                  |
| 3.11  | Reduce number of biocontainment labs holding RVCM   | FAO/OIE       | June 2013     | ongoing                  |   |  |
| <b>4. National contingency plans (CP) and international preparedness plan</b> |   |               |               |                          |   |  |
| 4.1   | Develop country template for national CP  | FAO           | Feb 2013      | June 2013                |   | Completed  |
| 4.2   | Develop international rinderpest post eradication preparedness, linking existing international mechanisms (reporting mechanisms, response mechanisms, legal instruments, national contingency plans, vaccine banks) | FAO, OIE, JAC | June 2012     | Dec 2017                 |   | FAO to lead  |
| 4.3   | National simulation exercise to respond to re-occurrence of rinderpest, following OIE code chapter  | FAO/JAC       | Dec 2014      | Dec 2018                 |   | JAC has already initiated the concept note for this task |
| 4.4   | Secure funding for simulation exercise (point 4.3)  | FAO           | March 2015    | Dec 2017                 |   | Part of phase 2 DTRA project                             |

|  | Activity  | Responsible   | Starting date  | Expected completion date | Outcome | Remarks  |
|--|---|---------------|----------------|--------------------------|---------|--|
| 4.5  | International simulation exercise in high risk regions  | FAO, OIE, JAC | Feb 2016       | Dec 2017                 |         | FAO will lead in this task   |
| <b>5. Rinderpest vaccine reserve (RVR)</b> |   |               |                |                          |         |  |
| 5.1  | Approved a SOP for quality control testing to extend vaccine shelf-life, included in rinderpest chapter (check) | OIE           |                |                          |         | Will need to draft SOP on this as changes to Manual chapter will take too long |
| 5.2  | Develop SOP for vaccine quality control testing using non-infectious tests                                      | JAC           | March 2015     |                          |         |  |
| 5.3  | Identify vaccine manufacturers for production of emergency vaccine  | FAO, OIE      | Aug 2014 (FAO) | Ongoing                  |         | 2016 technical meeting will provide guidance                                   |
| 5.4  | Develop spread model to determine doses and location of RVR   | FAO, OIE/JAC  | Jan 2016       | Dec 2016                 |         | Models cannot predict the future. Models can only compare control strategies   |
| 5.5  | Define strategic geographic location of RVR and number of doses (modeling and ad hoc group)                     | FAO, OIE, JAC | Jan 2015       | Dec 2017                 |         |  |
| 5.6  | Vaccine deployment plan and activation of RVR   | OIE, FAO      | March 2017     | Dec 2017                 |         |  |
| 5.7  | Annual inventory on vaccine doses   | FAO, OIE      | May 2013 (FAO) | Ongoing                  |         | Current doses 2.7 mil. Expiration date is unknown                              |

|   | Activity  | Responsible | Starting date | Expected completion date | Outcome                | Remarks   |
|---|---|-------------|---------------|--------------------------|------------------------|---|
| <b>6. Database for virus inventory and country status</b> |   |             |               |                          |                        |   |
| 6.1   | Establish country level database  | OIE         | Nov 2013      | Ongoing                  |                        | Each Member Country submit inventory as an annual report to the OIE             |
| 6.2   | Develop and install virus inventory system                                | OIE         | Jan 2015      | Ongoing                  |                        | 2016 Rinderpest holding facility meeting agreed that they will come with a plan |
| <b>7. Advocacy and increase awareness</b>                 |   |             |               |                          |                        |   |
| 7.1   | Creation of JAC   | FAO-OIE     | Dec 2012      | April 2012               |                        | Completed   |
| 7.2   | develop 10 reasons leaflet  | JAC         | June 2012     | Sep 2012                 |                        | Completed   |
| 7.3   | Movie on virus sequestration and destruction (OIE rinderpest eradication) | OIE         |               | May 2013                 |                        | Completed   |
| 7.4   | Regional Community Outreach (5 countries in Africa)                       | FAO         | Feb 2015      | Dec 2016                 |                        | Target livestock holders, wildlife handlers and governments                     |
| 7.5   | Regional Outreach for Government Education and Training                   | FAO         | March 2015    | Jan 2016                 | 2015 and 2016 meetings | Completed   |

|      | Activity   | Responsible | Starting date | Expected completion date | Outcome  | Remarks  |
|------|--|-------------|---------------|--------------------------|--|--|
| 7.6  | Moratorium on live rinderpest virus research and handling (nature publication and others)                  | FAO,OIE,JAC | June 2012     |                          | Feb 2013 lifting moratorium on research approved by FAO and OIE  | Completed  |
| 7.7  | Disseminate 10 reasons leaflet   | FAO,OIE     | Jan 2013      |                          | Distribution to various potential stockholders was accomplished. | Completed  |
| 7.8  | Distribute flyers and materials in relevant FAO and OIE assemblies and conferences                         | OIE, FAO    | April 2013    |                          |  | Flyers distributed to West Eurasian countries FAO-April, 2013, countries participated in the Sharm and Rome meetings |
| 7.9  | Transform JAC guidance biological materials may contain RPV into media-friendly, easy to understand format | JAC         | April 2013    | Dec 2016                 |  | New document for JAC 9   |
| 7.10 | Designate Rinderpest Day (cf Rabies Day). Suggest 23 October (last outbreak)                               | FAO, OIE    |               | April 2018               |  |  |
| 7.10 | Include rinderpest chapter in the veterinary and animal science curriculum                                 | FAO, OIE    | Jan 2016      |                          |  | Part of DTRA phase 2 concept note  |
| 7.11 | Interactive Website/twitters   | FAO         | Jan 3016      |                          |  | Regular updates  |

|  | Activity  | Responsible     | Starting date | Expected completion date     | Outcome | Remarks  |
|--|---|-----------------|---------------|------------------------------|---------|--|
| 7.12                                     | Advocacy movie for D&S  | FAO             |               | August 2016                  |         |  |
| <b>8. Surveillance and Early warning</b> |   |                 |               |                              |         |  |
| 8.1                                      | In country training in surveillance and early warning activities in risk regions  | FAO             | Jan 2015      | Dec 2017                     |         | Training in Togo done  |
| 8.2                                      | Improve data capture of disease rumors at national and regional levels  | FAO             | Jan 2015      |                              |         | Ongoing  |
| 8.3                                      | Improve exchange of information on potential RP events between organizations  | FAO, OIE, GLEWS | March 2013    |                              |         | Ongoing  |
| 8.4                                      | Improve passive surveillance, field investigations and reporting at the national level  | FAO             | Jan 2015      | December 2017 in 5 countries |         | Current awareness raising should improve passive surveillance  |
| 8.5                                      | PVS missions to selected countries to assess surveillance/response capability   | OIE             |               |                              |         |  |
| 8.6                                      | Develop a non-infectious molecular diagnostic tool for screening of rinderpest suspect cases (for ref labs and selected facilities) | FAO             | June 2016     | 2017                         |         | Research proposal submitted for JAC's recommendation did not require use of RCVM (Nov 2015)- no funding to start |
| 8.7                                      | Secure funding for point 8.6  | FAO             | June 2016     |                              |         | Not yet  |

|                        | Activity   | Responsible             | Starting date  | Expected completion date | Outcome  | Remarks   |
|------------------------|--|-------------------------|----------------|--------------------------|--|---|
| <b>9. Publications</b> |  |                         |                |                          |  |   |
| 9.1                    | OIE rinderpest code chapter  | OIE                     |                | May 2017                 |  | Update code on definition of sera (heat inactivated is not RVC M) |
| 9.2                    | Rinderpest history book  | FAO, OIE                | 2015           | Scheduled 2017           |  | One book chapter is to Secretariat and JAC to co-author           |
| 9.3                    | update on progress of post eradication activities- peer-reviewed article                   | FAO, OIE, JAC           | June 2015      |                          | OIE survey has been published                      |   |
| 9.4                    | Documents and SOPs related to rinderpest post-eradication in FAO and OIE website (toolbox) | FAO, OIE                | Jan 2015 (FAO) |                          |  | Ongoing   |
| 9.5                    | Peer-reviewed publication on research projects   | Principle investigators |                |                          | Study on PPRV as vaccine against RPV is published. |   |

Completed task
  dated task
  revolving task
  long term task

**MEETING OF THE RINDERPEST JOINT ADVISORY COMMITTEE  
Paris, 8 – 9 November 2016**

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**Action items from the 10<sup>th</sup> meeting**

| <b>Item</b>  | <b>Action</b>  |
|--|--|
| <b>1. Draft and present conditions for approval as RHF to CIRAD</b>  | 1. Dr Ulaeto to draft. FAO and OIE to follow up with CIRAD (6 month timeframe)   |
| <b>2. Razi application for RHF</b>   |  |
| <b>2.1. Review biosafety manual</b>  | 2.1 Dr Smith to review and inform all of his opinion   |
| <b>2.2. Draft Contingency Plan</b>   | 2.2 FAO to assist Iran   |
| <b>2.3. Write joint letter to inform Razi of the application status</b>  | 2.3 FAO and OIE  |
| <b>3. Designation letters</b>  |  |
| <b>3.1. Japan to sign both RHF designation letters</b>   | 3.1 FAO and OIE  |
| <b>4. Send joint letter to UK CVO about Pirbright's breach of contract</b>   | 4. FAO to send their comments on the letter to the OIE   |
| <b>5. Ask Pirbright to review the holdings of strains/samples with no known or documented history, and justify why they have not been destroyed.</b>                                   | 5. FAO and OIE to jointly contact Pirbright  |
| <b>6. FAO and OIE to ask FADDL, NIAH and Pirbright to review holdings and reduce the number of duplicate samples of individual strains samples by destroying redundant duplicates.</b> | 6. FAO and OIE to jointly contact FADDL, NIAH and Pirbright  |
| <b>7. Update the chapter on diagnostics from the OIE manual</b>  | 7. Dr Libeau to lead this task and to accept comments from other Committee members. The final version will be sent to the OIE. |
| <b>8. Heat treated sera</b>  |  |
| <b>8.1. Review the SOP and write position paper to submit to the Biological Standards Commission</b>   | 8.1 Committee members to provide comments and to write a recommendation. Dr Ulaeto to lead this task.                          |
| <b>8.2. Contact OIE to suggest a change on the RVC definition</b>  | 8.2 FAO to contact OIE and submit proposal to the BSC  |
| <b>9. International Preparedness Plan</b>  |  |
| <b>9.1. Ad hoc group on Strategic Vaccine Reserve for Rinderpest</b>   | 9.1 Dr Marrana to cooperate with FAO and draft the concept note  |
| <b>9.2. Framework on Strategic Vaccine Reserve</b>   | 9.2 Dr Myers to provide the framework in March 2017  |

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|   |   |
|---|---|
| <b>10. JAC to write recommendation to stop quality control of vaccine using live animals in Japan and proposing alternative potency and identity testing methods.</b> | 10. Dr Ulaeto to draft recommendation   |
| <b>11. Send joint letter to Germany reminding them of the compliance obligations towards OIE resolutions and asking them to destroy RNA</b>                           | 11. FAO and OIE to write. Dr Ulaeto to write minute stating JAC's position          |
| <b>12. Host an advocacy meeting with remaining countries holding RVCM without a RHF.</b>  | 12. FAO to lead   |
| <b>13. Sign the data sharing agreement between FAO and OIE</b>  | 13. FAO and OIE to sign   |
| <b>14. Write JAC dedicated chapter on the <i>Rinderpest History</i> book</b>  | 14. Dr Metwally to send the outlines of the chapter to the experts in February 2017 |

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Appendix IV

**MEETING OF THE RINDERPEST JOINT ADVISORY COMMITTEE**

**Paris, 8 – 9 November 2016**

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**List of participants**

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