

FINAL REPORT

ENHANCE CAPACITIES ON ASF PREVENTION AND CONTROL AT THE DOMESTIC-WILDLIFE INTERFACE THROUGH INTEGRATED APPROACH

(SERVICE AGREEMENT SRR-SEA/CFEOI2022/5, Lot 2)

1 Objectives of the service contract:

The service agreement objectives for the Lot 2 were:

1. To enhance the knowledge and skills of the key staff (Village animal health/Veterinary workers - VVWS, Department of Agriculture and Forestry Officials - DAFOs and Forest Rangers) working at the domestic-wildlife interface on disease surveillance and biosecurity management (disease detection, wild boar carcass disposal, application of biosecurity measures etc) with a focus on ASF through training and awareness activities.
2. To facilitate and enhance networking among the key stakeholders for future collaborations to carry out joint ASF surveillance at the domestic-wildlife interface through a multi-sectoral, One Health approach.

The deliverables were to develop training modules and organise a joined training of local rangers and village veterinary workers on the thematic of One Health and African Swine Fever to establish the basis of a joined surveillance network.

2 Achievements

The service was implemented from August 2022 up to November 2023.

During the first year of the project, the authorization to implement the project activities for both the Lot 1 and 2 were initiated and several workshops organised in that effect with the Ministry of Agriculture and its provincial and district offices as well as the Ministry of Foreign Affairs. The Memorandum of Understanding (MoU) among the service provider and the Lao government was obtained on the 29th of August 2023.

During that period, the training methodology and tools were developed in both English and Lao.

The training materials developed are listed in the table 1 below.

Table 1- List of training materials developped

	Kind of material	Target group
Training modules		
1	One health	Rangers, VVWs and VPHs
2	Introduction to pathogens	Rangers, VVWs and VPHs
3	Biosecurity	Rangers, VVWs and VPHs
4	Personal Protective equipment's	Rangers, VVWs and VPHs
5	Communication skills	Rangers, VVWs and VPHs
6	Biological sampling for diagnosis	VVWs
7	Common pig diseases (part 1 and 2)	VVWs
8	Management of sick animals	VVWs
9	Carcass disposal management	VVWs

The training materials were shared with the Direction of Livestock and fisheries, the Provincial and District Agriculture and Forestry offices and WAOH for feed-back and validation.

Once finalised a training of trainer was organised over 4 days in Vientiane to train two AVSF staffs and 4 officers from the district of agriculture and forestry office. The feed-back of the trainees in terms of training methodology and training tools was considered to further improve the modules (e.g. simplification, translation issues, ...)

The trainings were organised after the signature of the MoU, end of August 2023. As mentioned, to ensure a proper One Health Approach and set the basis of networking among all stakeholders for enhanced and integrated disease surveillance, it was decided to also associate the village public health volunteers (VPH) of the target villages to the training organised for the rangers and the village veterinary workers (VVWs) . The trainees identified were therefore:

1. For the VVWs specific trainings: the 22 VVWs of the 11 target villages
2. For the joined trainings:
 - Village Veterinary Workers s of 11 target villages (2 participants per village, 22 in total)
 - DAFO rangers of the district (6 persons)
 - WCS rangers active in the protected area (10 persons)
 - Village Public Health Volunteers of the 11 target villages (11 persons)

Each training was facilitated by 1 AVSF staff and 2 DAFO officers. At the beginning and at the end of each training, and assessment for was filled to measure the knowledge acquired through the training (Table 3 and 4).

For the joined training, a total of 49 persons were identified as trained (Table 1). To ensure a proper participation of all trainees and a self-learning process, the trainees were split in two groups of 24 and 25 persons.

The VVWs training regrouped the 22 VVWs of the 11 villages of intervention (4 women and 18 men).

Table 2- Training calendar and group constitution

	Dates	N. of participants
1. Joined modules for VVWs, rangers and public health volunteers		
Group 1	25-27/09/23	Trainees: 1 DAFO ranger, 5 rangers, 12 VVWs, 6 VPHs Other participants: 2 WCS officers
Group 2	Two sub groups: - 25-27/09/2023 - - 09- 11/10/23	5 DAFO rangers, 5 rangers, 10 VVWs and 5 VPHs
2. VVWs training	21-23/09	22 VVWs of 11 target villages

Table 3 – Overview of the persons trained

Genders	#VVWs	#VHVs	#Rangers	#DAFO	#WCS staff	TOTAL
Females	4	3	1	2	2	12
Males	18	8	9	4	0	39
Total	22	11	10	6	2	51

3 Trainees pre and post test results

3.1 Joined training

94% of the participants increased their overall score with improvements from 13 to 60%. Three participants have a decrease of 10%. In the pre-training test, the scores ranged from 20 to 80% with an average of 60%. The post-training training showed scores ranging from 50 to 100% with an average of 73%. The details of the scores obtained for the different sections are shown in the Table 3.

Table 4- Pre and post assesement results for the joined training of VVWs, rangers and VPHs

Lecture	One Health		Pathogens		Biosecurity		PPE		Communication		OVERALL
Question #	1	2	3	4	5	6	7	8	9	10	
Pre-training	82%	100%	33%	41%	71%	49%	94%	37%	31%	67%	60%
Post-training	100%	100%	61%	55%	71%	71%	92%	51%	55%	78%	73%
Variation	18%	0%	29%	14%	0%	22%	-2%	14%	24%	10%	13%

Remark: for the question 7, “Why should we wear a mask when handling sick animals?”, a slight decreased level of proper answered is observed as 4 participants answered “To stop bad smell” or “To look professional”.

3.2 VVWs training

For the VVWs training, all the participants have increased their overall score with improvements from 10 to 60%. In the pre-training test, the scores ranged from 20 to 70% with

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an average of 55%. The post-training training showed scores ranging from 50 to 95% with an average of 75%. The details of the scores obtained for the different sections are shown in the Table 4.

Table 5- Pre and post assessment results for the VVWs training

	Management	Sampling	Common pig diseases					Management	Carcass disposal		OVERALL
Question #	1	2	3	4	5	6	7	8	9	10	
Pre-training	73%	45%	73%	68%	77%	14%	45%	55%	45%	50%	55%
Post-training	100%	100%	64%	100%	91%	64%	77%	59%	23%	68%	75%
Variation	0,3	0,5	-0,1	0,3	0,1	0,5	0,3	0,0	-0,2	0,2	0,2

Two question show a decreased level:

Q3. You find a bloated animal body with blood coming out of the mouth, nose and anus.
What should you do?

- A. Open the body to look at the organs
- B. Leave the carcass alone and notify a veterinarian or DAFO**
- C. Feed it out to other animals since the body is still fresh
- D. Transport it to the nearest veterinarian or DAFO for them to look at it
- E. None of the above

Q9. When a sick pig dies

- A. It is always safe to use the meat to feed other pigs
- B. It is always safe to use the meat to feed dogs because they can not get pig diseases
- C. It is safe to use the meat for human consumption if it is frozen for 15 days
- D. It is only safe to use the meat if it is boiled for 30 minutes**
- E. None of the above

For both questions most of the respondents either answered right or changed their answer to “None of the above”. This could be due to practical experience and local context. Due to the long delay of reaction by VVWs and DAFOs in case of death, most farmers will prefer to directly bury carcass (option not provided) instead of “Leave the carcass alone and notify a veterinarian or DAFO” considering a response is better than no or late reactions from VVWs or DAFO. So, B might not have been considered the best choice for participants.

For question 9, although the risk of virus survival and therefore of transmission is managed if the meat products is boiled, there was a strong recommendation to not eat it at all during the training, the answer “None of the above” can therefore be considered as correct and the lowest score obtained after training can be explained.

4 Recommendation and feedback from participants.

- The training duration of 3 days was considered as adequate, allowing a good balance between theory and practice. This short duration was also adapted for the participants which could not allocate more time for the training during the harvest period.
- Provided by local trainers using the local language, participants were more comfortable and engaging into a learning environment. As a result of these factors, participants feel more empowered to ask questions, share their own experiences, and actively engage in exercises. The group discussion sessions were productive and beneficial. Participants actively shared their experiences and problem-solved together.
- The training materials are well-organized and creatively animated. PowerPoint presentations significantly enhanced comprehension by utilizing visual aids. This visual approach allowed participants to better imagine and understand the concepts being presented.
- Using materials which are available in local communities, such as plastic bags instead of aprons or protective clothing for practice sessions can facilitate more realistic and sustainable practice by participants once they return to their communities.
- Some science aspects, such as one health and biosecurity, proved to be particularly challenging for both the newly trained facilitators and the participants.
- The event detection and reporting of (both livestock and wildlife) mortality and morbidity should have been emphasized more prominently throughout the training.
- The trainees mentioned that, for them to be able to organise awareness raising campaigns or spread the message among their communities, they would need some communication tools (e.g. posters) and further coaching. The tools and coaching can be organised through another project implemented by AVSF in the area which can support awareness raising activities of the communities on biosecurity, one health and ASF.
- Some VVWs mentioned not having any drugs in stock to provide the service to their communities. The villages are supported by WCS under another project and received a financial support as “Village Development Fund”. If the establishment of drug boxes to be managed by the VVWs is identified as a priority for the village they can use that fund for drug boxes.
- Recommendations for future trainings / ways of improvement:
 - Additional support and guidance (facilitators) during group work sessions would be more beneficial, particularly in addressing group work questions.
 - Female should be more encourage to attend and to participate. Most participants were male, and male participants were more active in asking questions and sharing experiences.
 - Evaluation questions: some questions lead to misinterpretation and/or possible additional answers were left out misleading the trainees and leading to wrong answers in post-training test. Test questions should be properly tested before hand.

5 Conclusion

The services have been rendered as per the contract with a slight implementation delay due to unexpected delays of approval of the project by the Lao government. Nevertheless, the time of approval has been used to prepare the different activities to be able to shortly implement them once the MoU was signed.

A large majority (>90%) of the participants have increased their knowledge on the thematic and appreciated the training. In addition, 4 DAFO staff have been trained as trainers and 10 VPHs have been invited to join the training organised for the VVWs and the rangers to ensure the proper training of all the actors engaged in surveillance on a one health perspective.

The service implementation by organization having on-going project in the same area proved to be efficient as it will allow to cover some additional needs expressed by the trainees for them to be able to properly apply and use the knowledge they gained in the future.

Appendix1 - Picture of training sessions:



Figure 1 – Pictures of the training sessions and working groups



Figure 2- Pictures of the practical session on PPE and post-mortem sampling

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Figure 3- Pictures of the practical session on post-mortem sampling



Figure 4- Group picture of the trainees and certificate hand-over (1)



Figure 5- Group picture of the trainees and certificate hand-over (2)