**FMD vaccination impact assessment survey**

This study aims to explore the socio-economic impact of FMD vaccination control programmes on large ruminant smallholder health and production in northern Laos, and provide recommendations to policy makers and smallholder farmers in engaging in disease control interventions including vaccination and biosecurity. The study will also provide information on the role of women on FMD control programmes providing crucial information to veterinary services to design more effective and sustainable interventions in preventing and control of FMD at community levels. The survey consists of two parts with different sets of questions.

**Part I. Village Level:** where village chief, village elders & village veterinary workers will be interviewed

Date of the interview \_\_\_\_\_\_\_\_\_ Interviewer name: \_\_\_\_\_\_\_\_\_\_

Village Name: \_\_\_\_\_\_\_\_\_ District: \_\_\_\_\_\_\_\_\_ Province \_\_\_\_\_\_\_\_\_

Ethnic group name \_\_\_\_\_\_\_\_\_

Distance from the town \_\_\_\_\_\_\_\_\_Km Near roadside: Yes No (circle)

Name of the interviewee: \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_ Responsibility: \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_

Gender (M/F) \_\_\_\_\_\_\_\_\_ Age (yrs) \_\_\_\_\_\_\_\_\_

Q.1. Could you please give us an overview about livestock production in your village?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Q.2. Do you think the livestock population in your village has increased or decreased in the last five year? Would you able to provide number of animals in the your village in 2016 (don’t need to be completed get as much information as available)

Yes, it has increased Increased by (%)\_\_\_\_ because \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

No, it hasn’t Decreased by (%)\_\_\_\_ because\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Cattle (head) | | | Buffalo (head) | | | Goats (head) | | Pigs (head) | |
| Total | Female | Calf | Total | Female | Calf | Total | Female | Total | Female |
| 2016 |  |  |  |  |  |  |  |  |  |  |

Q.3. Could you please give us an overview about FMD outbreaks in your village?

Q.3.1.When was the last time that an outbreak occurred?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Q.3.2.Which month or period did FMD occur?\_\_\_\_\_\_\_

Q.3.3. Between 2006 and 2016, how many times that FMD infection occurred in your village? \_\_\_\_\_\_ Times

Q.3.4. Did you report the case to the authority?

Yes (*circle*) When \_\_\_\_\_\_\_(days after the infection) to whom \_\_\_\_\_\_\_

No

Q.4. How many households in your village:

a) Total in the village:\_\_\_\_\_\_\_\_\_

Wealthy\_\_\_\_\_

Average\_\_\_\_\_

Poor\_\_\_\_\_\_\_\_

(This question will be discussed among the elders and village veterinary workers)

b) Total household with cattle and buffalo: \_\_\_\_\_\_\_\_\_

c) Total household with cattle and buffalo participate with the project: \_\_\_\_\_\_\_\_\_

d) Is there any households in your villages that headed by females? Yes No

If yes, How many \_\_\_\_\_\_\_\_\_

How many with cattle and buffalo \_\_\_\_\_\_\_\_\_

Total household with cattle and buffalo that headed by females participate with the project:\_\_\_\_\_\_\_\_\_

Q.5. Were any of livestock in the village vaccinated against FMD in the past six months? (Circle)

Yes No

If Yes, how many

Cattle \_\_\_\_\_\_\_ (heads)

Buffalo \_\_\_\_\_\_\_ (heads)

If no, why \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Q.6. Do you know where to get the vaccine?

Yes, from \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

No

Q.7. Do you think that your fellow farmers will be interested to vaccinate animals for FMD if they have to pay for the vaccination cost ($2 per dose)? (Circle)

Yes, How much are they willing to contribute?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

No, Why? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Q.8. Other comments:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_ \_\_\_\_\_\_\_\_

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\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

**Part II. Smallholder farmers**: the team will interview 10-15 farmers per village (at least 5 females). Socio-economic data and financial benefits of FMD vaccination programmes from each interviewed farmer will be collected

Date of the interview: \_\_\_\_\_\_\_\_\_\_ Interviewer name: \_\_\_\_\_\_\_\_\_\_

Village Name: \_\_\_\_\_\_\_\_\_ District: \_\_\_\_\_\_\_\_\_\_ Province \_\_\_\_\_\_\_\_\_

Name of the interviewee: \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_ Ethnic group name\_\_\_\_\_\_\_\_\_

Gender (M/F) \_\_\_\_\_\_\_\_\_ Age (yrs) \_\_\_\_\_\_\_\_\_ Head of the household (Y/N) \_\_\_\_\_\_\_\_\_

Total number of family member \_\_\_\_\_\_\_\_\_ Female \_\_\_\_\_\_\_\_\_

**A. Farmer household information**

Q.1. Could you please give us an overview about your livelihood activity and rank which activity is the most important to your family (1 most important and 6 least important)

a. Paddy rice production \_\_\_\_\_\_\_

b. Upland rice production \_\_\_\_\_\_\_

c. Maize, cassava, vegetable etc \_\_\_\_\_\_\_

c. Small livestock (Poultry, pigs, goats) \_\_\_\_\_\_\_

d. Large ruminant production \_\_\_\_\_\_\_

g. Other \_\_\_\_\_\_\_ (Please specify)\_\_\_\_\_\_\_

Q.2. Would you be able to produce enough rice for the family consumption each year? (if rice not grown skip the questions)

Yes No (*circle*)

How much do you able to produce this year? \_\_\_\_\_\_\_Tone

Cultivated areas \_\_\_\_\_\_\_ ha

Q.3. What does your family household main cash income come from? (could be per month or year, if he cannot tell his income from each category try to work out from his total income first and ask him in term of proportion)

a) Income from cropping (rice, maize, vegetable..etc) \_\_\_\_\_\_\_ % \_\_\_\_\_\_\_ Kip

b) Incomes from small livestock (poultry, pigs, goats) \_\_\_\_\_\_\_ % \_\_\_\_\_\_\_ Kip

c) Incomes from large ruminants (Cattle and buffalo) \_\_\_\_\_\_\_ % \_\_\_\_\_\_\_ Kip

d) Incomes from other (please specify) \_\_\_\_\_\_\_ % \_\_\_\_\_\_\_ Kip

**Total incomes \_\_\_\_\_\_\_ \_\_\_\_\_\_\_ Kip**

Q.3.a. Has your total household income improved since 2012?

Yes Increased by (%)\_\_\_\_

No decreased by (%)\_\_\_\_

Q3.b. Where did the extra income come from (Ask this question if his household income increased)

More animals sold? Yes No

Healthier / Better fed (heavier) animals sold? Yes No

More crops? Yes No

More time for secondary business/jobs? Yes No

Others (please state):

Q.3.c. What did you use the extra income for? (Ask this question if his household income increased)

Buy better bulls and more stock? Yes No

Plant more crops? Yes No

Expand the farm, buy more land? Yes No

Buy new machinery? Yes No

Others: please state

Q.3.d. Do you plant forages? (*circle*)

Yes How big is the area?\_\_\_\_\_\_\_\_\_\_ m2

No

Q.4. Could you please provide number of animals that you currently have? (re-state that we don’t collect this information to collect tax from his family it is confidential)

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Cattle (head) | | | Buffalo (head) | | | Goats | | Pigs (head) | |
| Total | Female | Calf | Total | Female | Calf | Total | Female | Total | Female |
| Heads |  |  |  |  |  |  |  |  |  |  |

Q.4.1. Has your cattle and buffalo herd increased or reduced over the last four or five year?

Yes, it has increased Increased by (%)\_\_\_\_ because \_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

No, it has not, Decreased by (%)\_\_\_\_ because \_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

Q.4.2. How many cattle and buffalo did you sell this year (2016)?

Number of cattle \_\_\_\_ Average price (Kip) \_\_\_\_\_\_\_\_

Number of buffalo \_\_\_\_ Average price (Kip)\_\_\_\_\_\_\_\_

Q.4.3. In your family, who made a decision of which cattle and buffalo to be sold? Please circle for the selection (Circle)

Husband Wife Together

Q.4.4. Who is taking care of the money? (Circle)

Husband Wife Together

Q.5. Who is responsible for the primary care of family's cattle and buffalo? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Q.5.1. How many hours does your family member spend time taking care of cattle and buffalo?

|  |  |  |
| --- | --- | --- |
|  | No. hours per day | No. of days per week |
| Husband |  |  |
| Wife |  |  |
| Children |  |  |
| Others\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |  |

Q.6. Could you possible tell us about FMD that occurred in your cattle and buffalo herd?

Q.6.1.When was the last time that an outbreak occurred?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Q.6.2.Which month or period did FMD occur?\_\_\_\_\_\_\_

Q.6.3. Between 2006 and 2016, how many times that FMD infection occurred in your herd? \_\_\_\_\_\_ Times

Q.6.4. Did you report the case to the authority? (Circle)

Yes When \_\_\_\_\_\_\_(days after the infection) to whom \_\_\_\_\_\_\_

No

Q.6.5. Did you sell sick animals? Yes, No

Q.6.6. Did you get a good price? Yes No

**II. Farmer knowledge, attitude and practice part**

Q7. What disease gives the signs of illness listed below to cattle or buffalo?

* Sores on mouth or Sores in tongue or
* Sores on feet or Sores on udder or
* Loss of strength or many cows or buffalo affected at one time

\_\_\_\_\_\_\_\_\_\_\_\_\_ *(name the disease)* or I don’t know (Circle)

Q.7.1. Do you know about FMD? (*Circle*)

Yes No **If No go to question Q. 7.5**

Q.7.2. How does FMD spread?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Q.7.3. How do you treat FMD?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Q.7.4. How do you prevent FMD?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Q.7.5. What disease gives the signs of illness listed to cattle or buffalo? - Swelling in neck area, quick and difficult breathing, death, and many cattle or buffalo affected at one time:

I do not know HS FMD Other (name the disease)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**From Q8 to 20 please *circle* to select the farmer’s choice**

Q.8. The spread of FMD can be stopped by selling affected cattle or buffalo

True False I do not know

Q.9. Regular vaccination can prevent my cattle or buffalo getting FMD

True False I do not know

Q.10. Vaccination and antibiotic injection are the same

True False I do not know

Q.11. My cattle or buffalo can get FMD if I mix them with newly bought cattle or buffalo.

True False I do not know

Q.12. Keeping my sick cattle or buffalo away from other animals helps to ensure other cattle or buffalo in the village do not get sick

True False I do not know

Q.13. Using the same food and water buckets for sick and healthy Cattle or buffalo is o.k.

True False I do not know

Q.14. If I buy cattle from a village where there are many sick cattle and buffalo the bought cow or buffalo are likely to bring disease to my village

True False I do not know

Q.15. Did you treat sick animals yourself? (*circle*)

Yes you did that alone or someone in the family helping: Yes No

If yes select the helpers Children Wife Others

No Who did that for you?\_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

Did you have to pay for the services? \_\_\_\_\_\_\_ \_\_\_\_\_\_\_ How much? \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

Q.16. Did you separate sick animals from the normal herd for the treatment?

Yes No

How/where \_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

Q.17. Each time after you contacted infected animals did you clean yourself and change your clothes before going to other areas?

Yes, How? \_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

No, Why? \_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

Q.18. Were any of your livestock vaccinated against FMD in the last six months? (*circle*) Yes No

If Yes, how many\_\_\_\_\_\_\_ Vaccine provider: \_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

If no, Why \_\_\_\_\_\_\_

Q.18a. Do you know where to get the vaccine? (*circle*)

Yes Where \_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

No

Q.19. Are your cattle and buffalo vaccinated regularly against Foot and Mouth Disease (FMD) & Haemorrhagic septicaemia (HS) in the last 4 years?

Yes No

Q.20. Has disease incidence and mortality rate in cattle changed since 2012?

Increased Decreased Same

Q.21. Are your cattle and buffalo growing better now with improved nutrition & less disease?

Yes No

Q.22. Have the vaccinations been effective in your opinion?

Yes No

Q.23. Would you be interested to vaccinate your livestock for FMD if you have to pay for the vaccination cost ($2 per dose)? (*circle*)

Yes, How much are you willing to contribute? \_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

No, Why? \_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

Q.24. If changes have been introduced, in your opinion have the changes:

Prevented disease: Yes No

Prevented mortality (death): Yes No

Increased the growth rate of animals: Yes No

Increased the market value of animals: Yes No

Increased household livestock income Yes No

Q.25. What are your thoughts on the new changes:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

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Q.26. In general, what are your thoughts about this FMD vaccination project?

Very good Good Acceptable Not acceptable

Q.27.What do you consider that are their biggest risks to their farming enterprises?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

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Q.28.What ideas & plans do you have to improve &/or protect both their livestock enterprise & household incomes?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

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Q.29. Other comments:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

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**! Thank you so much for your collaboration!**