

BASELINE SURVEY METHODOLOGY

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PRESENTATION COVERS

- OBJECTIVES OF THE BASELINE SURVEYS
- BASELINE STUDY DESIGN
- PLANNING AND LOGISTICS
- IMPLEMENTATION / DELIVERY
- OUTCOME EXAMPLES
- LESSONS LEARNED





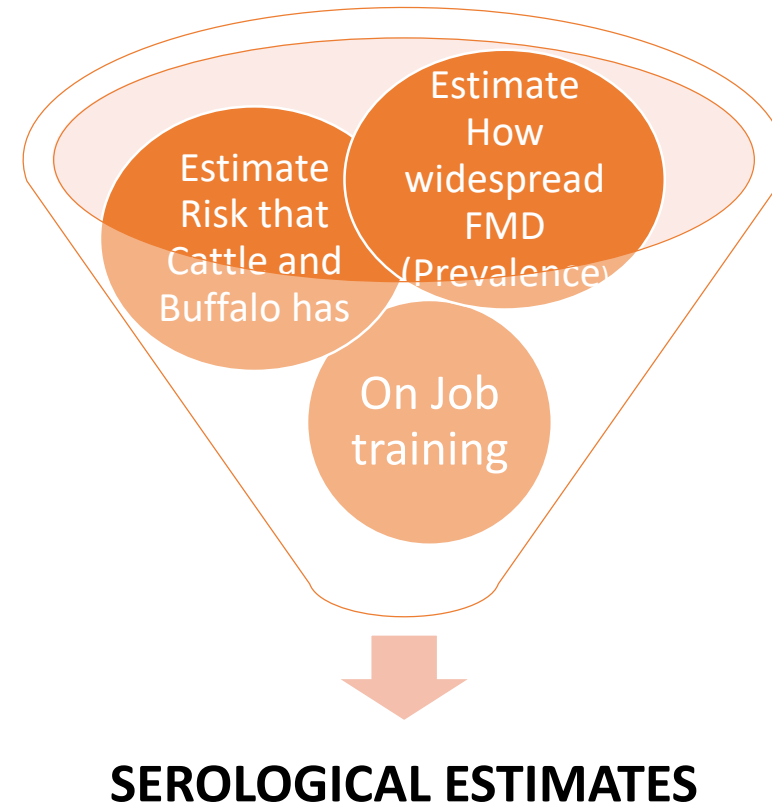
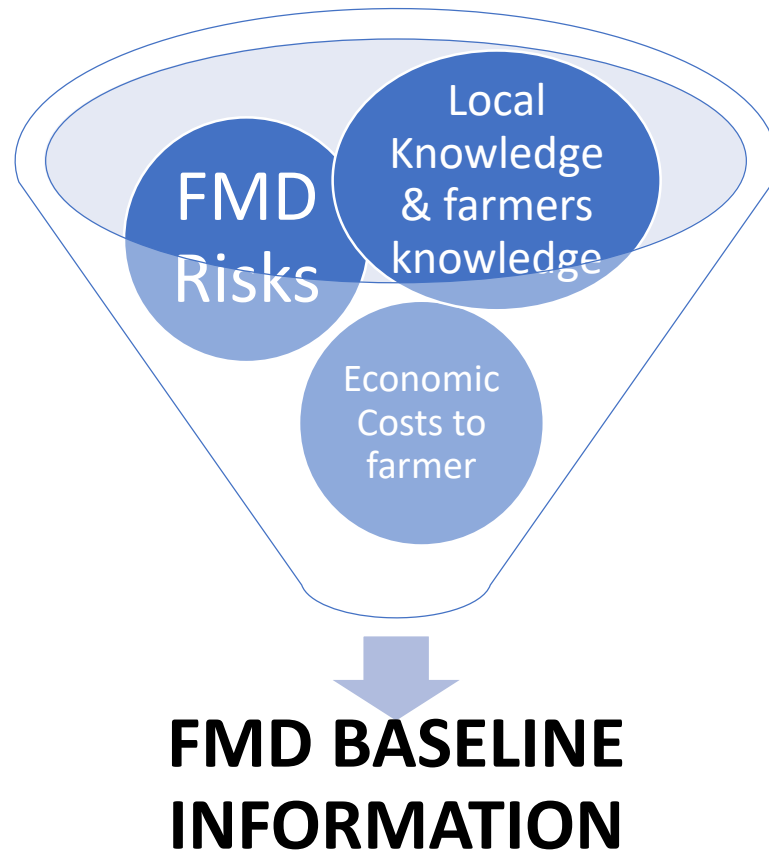
OBJECTIVES OF THE SURVEY

- **Develop a Baseline using local knowledge.**
- **Develop practical and effective control strategies against FMD.**
- **Guide decision making on future hot spot areas for vaccination.**
- **Measure the effectiveness of the Project (Monitoring and evaluation).**





BASELINE COMBINED WITH SEROLOGICAL SURVEY





Baseline FMD Survey

Questionnaire
6 Household + 1
Village Level

- Collect local knowledge
- Understand FMD risks specific to Laos
- Understand farmer's perception and knowledge of FMD
- Calculate the economic cost of FMD on farmers

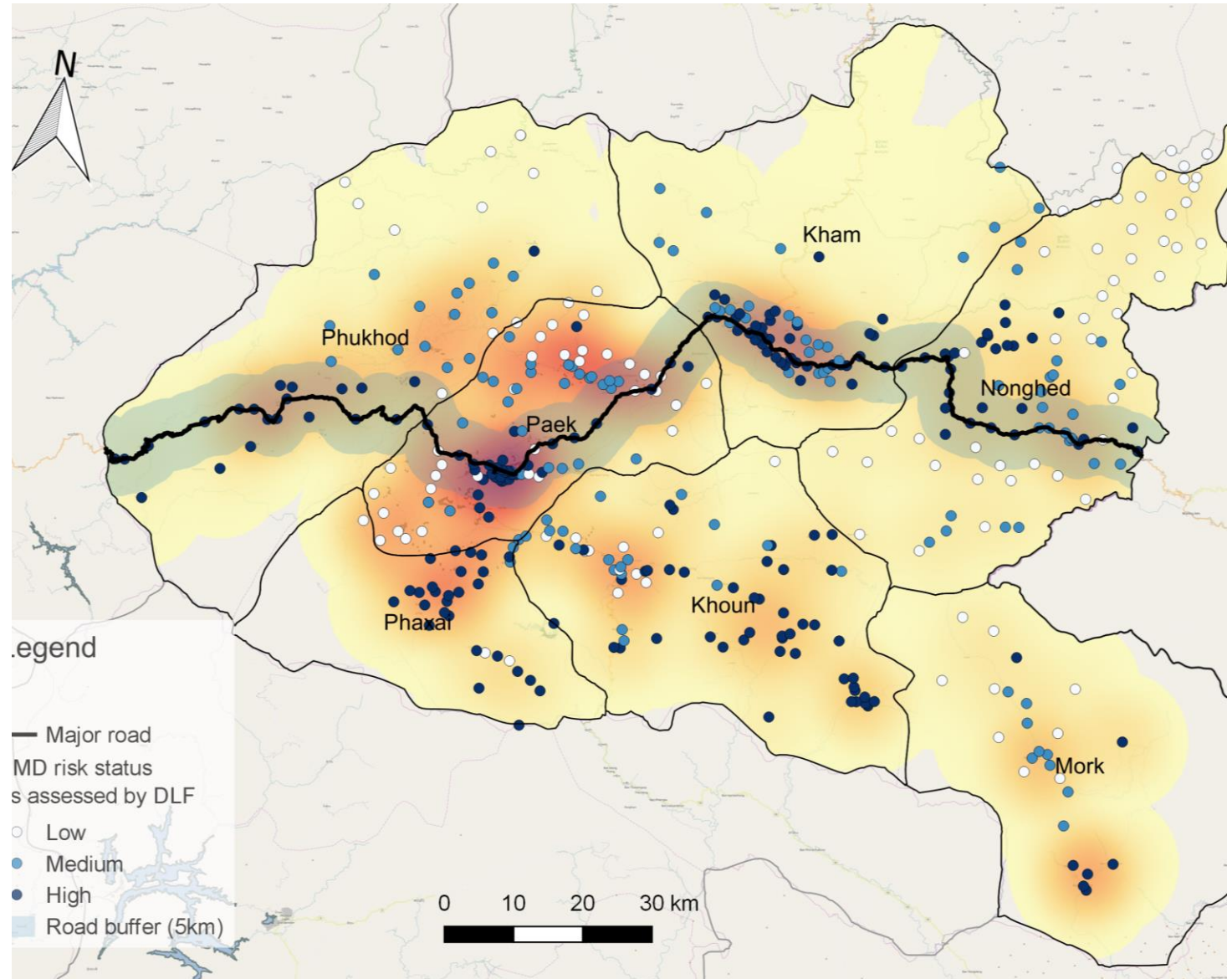
Serum collection
18 Serum
Samples/village

- Estimate how widespread FMD is in Laos (**prevalence**)
- Estimate the risk that cattle have of becoming infected (**incidence**)



SELECTION OF VILLAGES FOR SURVEY IN XIENGGHOUANG

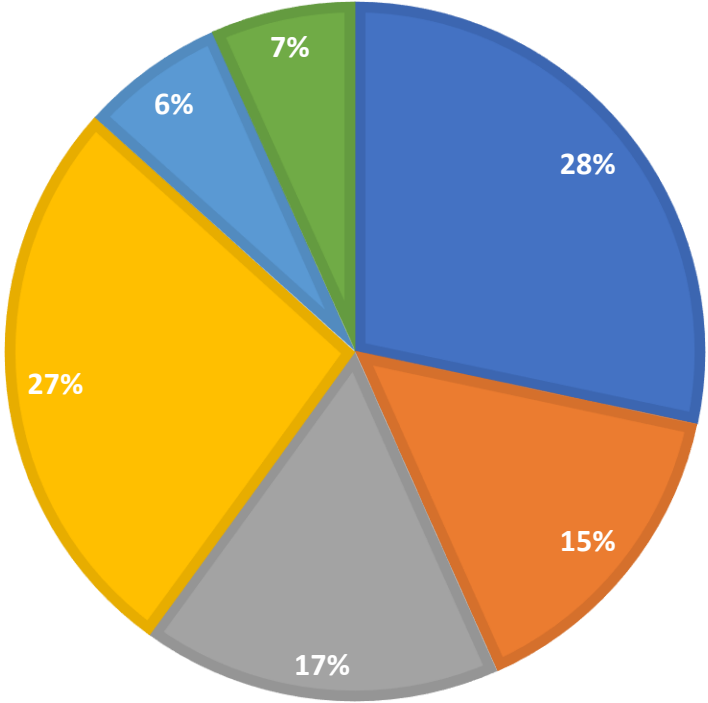
- **60 villages** from 6 districts in Xieng Khouang Province of Lao PDR.
- Total number of epi units present in the 6 districts namely Paek (09-01), Kham (09-02), Nonghed (09-03), Khoun (09-04), Phookood (09-06) and Phaxay (09-07) of Xieng Khouang Province were **480**.
- Out of which **60 villages** were selected using **random sampling method in excel 2016**.
- The village data was provided by PAFO Xieng Khouang in which FMD risk level was already categorized into High, Medium and low risk.
- The selection of villages was reviewed during the baseline survey planning workshop 26-27 May, 2017 to get the **local knowledge on access, logistics and operational needs**.



BASELINE SURVEY DISTRIBUTION

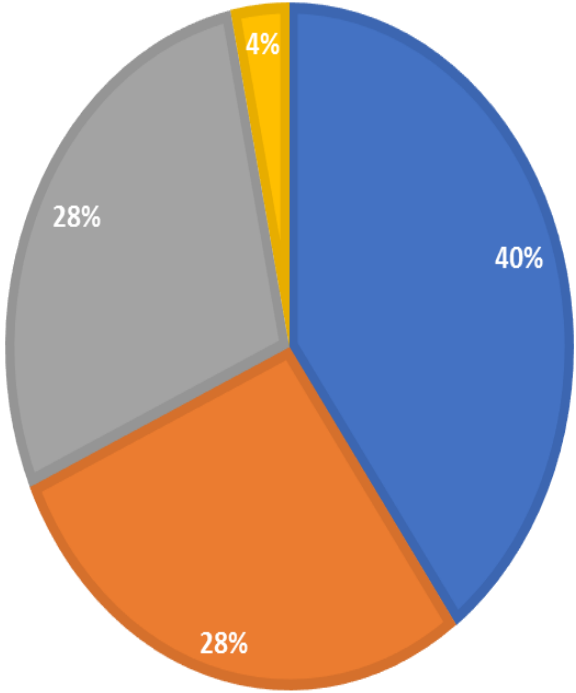
BASELINE SURVEY VILLAGES

■ Paek ■ Kham ■ Nonghed ■ Khun ■ Phukod ■ Phaxai



BASELINE SURVEY VILLAGES WITH FMD RISK LEVEL

■ High Risk ■ Moderate Risk ■ Low Risk ■ Not Known



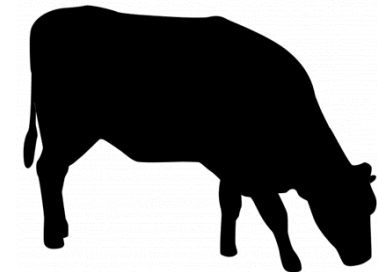
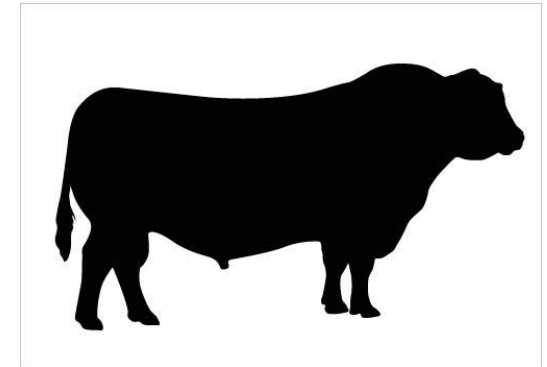
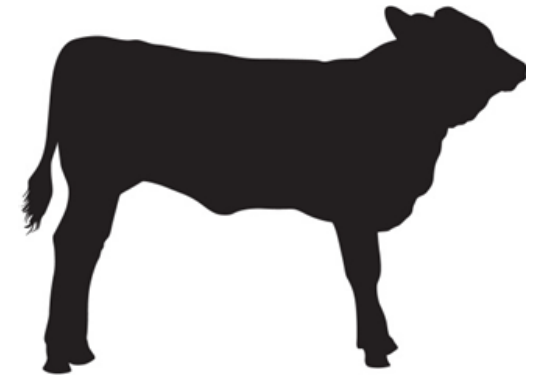
BASELINE SURVEY GUIDELINES

- These 60 selected epi units were the source population from which individual blood samples will be drawn.
- Prior communication procedure were established to take appointment of village head, famers, VVW's and relevant stakeholders for the survey.
- 6 randomly selected Households would be interviewed in each target village.
- 1 village level questionnaire would be completed in each target village.
- Only trained DLF /PAFO staff in assistance with DAFO staff may conduct famers interview.
- The questionnaire and serum samples shall be labelled properly and data shall be recorded in the approved prescribed questionnaire and template.



SEROLOGICAL SURVEY METHODOLOGY

- Blood samples collected from Cattle and Buffalo species preferably from the household interviewed. On an average 3 animals shall be sampled from each household.
- 18 animals will be sampled per village, with numbers stratified by age:
 - 6 animals between **6-18 months of age**
 - 6 animals between **18-36 months of age**
 - 6 animals older than **36 months**
- At the time of field sample collections, detailed information of the individual animal to be sampled will be collected from the field team.
- Sampling will be coordinated by the project national staff with the support from Provincial and District staff .
- Blood samples in proper transport container with the required transport temperature will be emphasized and observed while on field.
- Blood samples collected transported to the National FMD laboratory as soon as possible to avoid spoilage and contamination.
- Serological samples for testing stored at refrigerator temp. upon receipt of the samples. Serum will be recovered from each sample and stored at -20°C if the samples cannot be tested within 24 hours.



TRAGET GROUP
FOR
QUESTIONNAIRE
DELIVERY :
Farmers ,Village
Head ,VWV



Who



- **1 Survey Team/village**
- **Survey Team = 1 trained DLF Staff and 1 PAFO & 1 DAFO**
- **4 survey teams work in Xieng Khouang Province**
- **Capacity Building**
 - **Direct involvement of PAFO and DAFO staff in project planning and implementation**
 - **Decision makers will receive survey analysis and results**



PRACTICE and TESTING OF METHODOLOGY BEFORE DELIEVERY

- Baseline Survey workshop at Savannakhet on 19th Sept, 2016 attended by 21 technical staff.
- Baseline Survey workshop at Champasak on 20th Sept, 2016 attended by 20 technical staff.
- Planning and Implementation of baseline survey in Xiengkhouang Province on 27-29 May, 2017 attended by 30 technical staff.



SEROLOGICAL SAMPLES

Labelling of serum sample



Topic	Number
Villages covered	60
Sample collected	463

EQUIPMENT SUPPLIES

- **BASELINE SURVEY**

- Printed questionnaire in local language.
- Stationary – Pen ,Pad, folders.
- Reference sheet – guidelines and disease recognition sheet.

- **SEROLOGICAL SURVEY**

- Vacutainer tubes
- Vacutainer needles
- Cryogenic /serum tubes
- Cold chain Box
- Tube Holders

BASELINE SURVEY IN XIENGGKHOUANG

Completed FMD baseline survey in 356 household of 60 village from 29 May -12 June 2017. In addition ,1063 serological submitted for testing to NAHL.



BASELINE SURVEY IN SVK AND CPS

Implemented FMD baseline survey in 456 Household of 100 villages including serological survey(1803 serological samples) from 3-31 Oct'2016 and subsequent analysis of the survey in Savannakhet and Champasak was completed.



BASELINE SURVEY OUTCOME (Southern Laos Oct 2016 survey)

- The mean herd size of cattle was 7 heads owned by 88% of hh, 4 buffaloes in 33%, 6 goats in 15% and 2 pigs in 19% of hh.
- Cattle were more productive than buffaloes. They had a higher birth rate (52% vs. 40%) and lower death rate (1.8% vs. 2.5%), whereas sales rates were similar (8%).
- Households purchased 2% cattle and 1% buffaloes (all rates based on the overall herd size, except for birth rates which were based on adult herd size).
- More than half of the households (59%) reported to have seen signs of FMD in their animals at least in the last five years. The incidence in 2016 (5-10%) was less than half as high as in the preceding 3 years 2013-15 (14 - 24%).
- The observed morbidity was highest in cattle (33%) followed by buffaloes (17%), and was almost negligible in goats (2%) and pigs(0.1%). However, signs may be less visible in goats, thus was potentially under-reported.

BASELINE SURVEY OUTCOME (Southern Laos Oct 2016 survey)

- Almost half the ruminants population had been exposed to FMD virus in previous years, with buffaloes having higher prevalence than cattle.
- The survey findings did not support this classification instead revealed that exposure to FMD was widespread. This suggest that a review of the risk based strategy for FMD control programme in Savannakhet and Champasak provinces. This should take into account the endemic and ubiquitous nature of the infection in the two provinces.
- The options suggested as recommendation were sustained blanket vaccination of large ruminants aged 2 years or younger in order to develop cohorts of immune individuals within continuous areas such as villages or districts.
- The other option recommendation was creation of FMD exclusion zones , in which all animals are vaccinated and inward movements are strictly controlled and overall enhancement of information between farmers and veterinary authorities.

LESSONS LEARNED

- Testing of Questionnaire is important to review the response from target group
- Experience staff to lead the survey team which also helps to train the new staff.
- Labelling of questionnaire and link it with serum sample numbers is important.
- Random village selection process must be reviewed in terms of access, operation feasibility and logistics.



LESSONS LEARNED

- Engagement of village head ,VVW's is the key to gather data on village level questionnaire.
- Efforts should be made to involve women , elderly person during the Household interview.
- District staff and VVW's should be closely involved in the survey as they have close relationship with communities.



THANK YOU

