



DEPARTMENT OF VETERINARY SERVICES SARAWAK

SARAWAK SOCIOLOGICAL APPROACH TO TRANSBORDER ANIMAL VALUE CHAIN ANALYSIS

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INTRODUCTION

The WOAH "Transborder Animal Value Chain Analysis in SE Asia and Pacific (ET/LN/2020/104)" project was commenced in 2021 with an initial six Veterinary Services groups: Philippines, Timor-Leste, Sarawak Malaysia, Sabah Malaysia, Papua New Guinea, and Indonesia. Sarawak Malaysia, continued onto the field activity component aimed to build capacity on animal value chain analysis using a sociological approach in targeted countries (through 'learning by doing'), and to identify and analyse the cross-border animal and relevant animal products value chain incorporating sociological methods using a pilot field study. The field project was to be a pilot project in a specific border region, looking at the risk of transborder spread of a specific disease. DVS Sarawak used the opportunity of the project workshop to consider the whole Sarawak/ Kalimantan border.

PROJECT COMPONENTS

Step 1 – The field study chosen by Sarawak was the potential spread of **foot-and-mouth disease (FMD) from Serikin village near the Sarawak/ Kalimantan border.** An added component of the risk analysis scope was conveniently added at the August face-to-face workshop to make use of the collectively expertise of DVS staff collected at the workshop. This gave a good coverage for determining risk pathways and analysis along the whole Sarawak/ Kalimantan border (as well as with Brunei).

Step 2 – The methods of plausible spread of FMD across the border at both the specific Serikin field work site and the whole border were determined and incorporated into the workplan. The potential FMD risk pathways included those for both domestic and wild ruminants & pigs, plus ruminant and pig products.

Step 3 – A Key Informant Interview (KII) was conducted with the veterinary assistant in charge in Serikin. Two In-Depth Interviews (IDI) were held with were conducted with two villagers from Serikin. Four mixed-gender, community FGDs were conducted simultaneously in Serikin, Sarawak (using a social mapping technique).

Step 4 –The collected data was analysed by Dr Sarah Homan. From this, a list of cross-border FMD risk pathways was developed as shown in Table 9 below. The pathways were broken into the three sections:

- a) Risk pathways specifically for the Serikin region,
- b) General complete Sarawak/ Kalimantan cross-border risk pathways, and
- c) Post-border Value Chain risk pathways.

Step 5 - The risk analysis method was used to give a risk rating for each pathway, by estimating the consequence of FMD entry & establishment with the likelihood of that happening. The consequence for an incursion of FMD into Sarawak was considered to be the same for any cases which was be rated as "major", except for situations where FMD spread into commercial herds, where the consequence due to its potential effect on international trade, has been rated as "catastrophic".

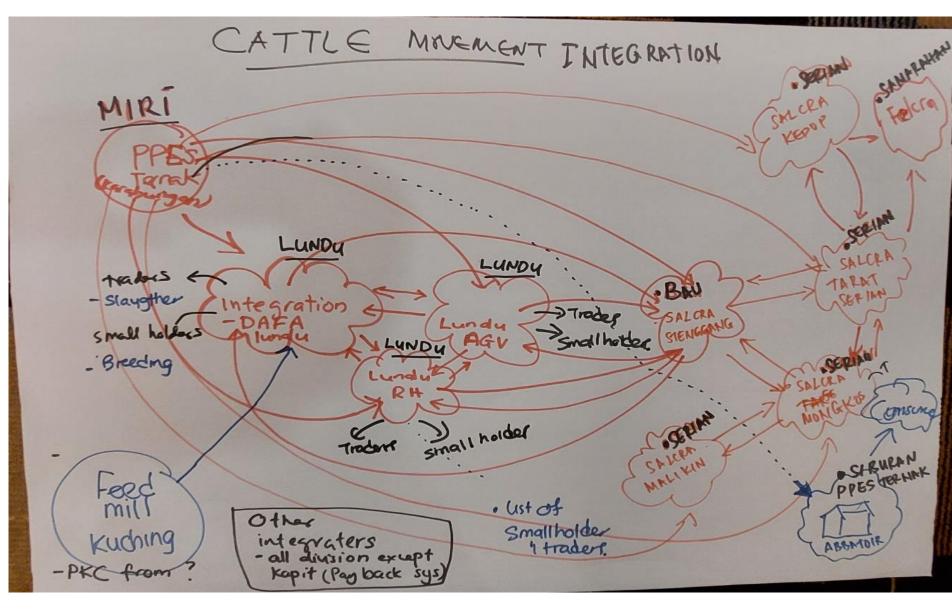
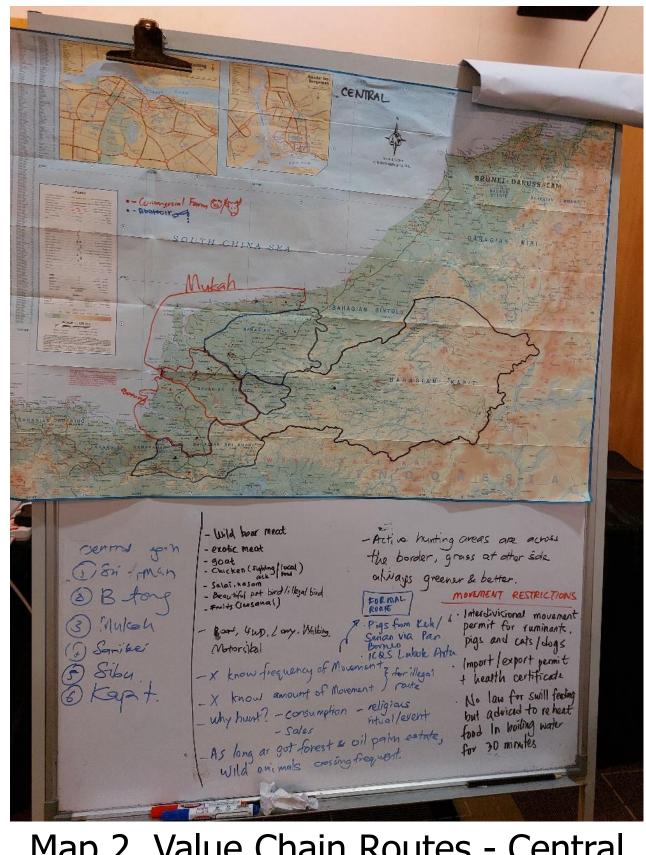


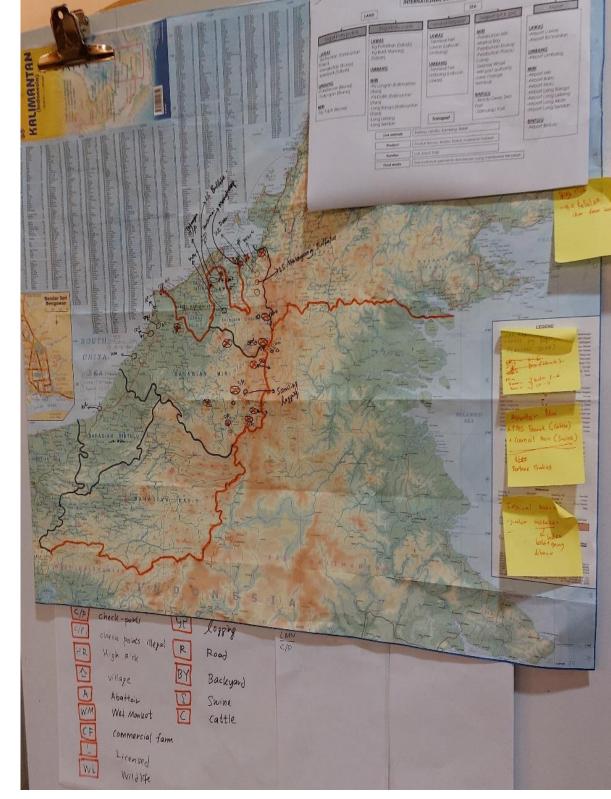
Diagram 1. Cattle Integration Program Value Chain



Map 1. Value Chain Routes - Southern







Map 3. Value Chain Routes - East

Summary

Given the large number of risk pathways identified that were rated as "extreme" or "high" risk for FMD transborder spread from Kalimantan into Sarawak, a high priority task is to see if those risks can be reduced. Similarly, there are many extreme and high-risk pathways of spread of FMD within Sarawak if it enters, which should be seriously considered. Of these, the pathways of transfer of FMD from smallholder livestock into commercial pig farms are particularly of concern because of the potential effect on exports. Communication with the commercial farms about the suggested mitigation actions would therefore be a priority. As many of the risk pathways have similar components, several of the risk mitigation steps suggested were the same. It was found that communication programs: community and targeted education campaigns, are indicated as a major component of the actions to help prevent FMD cross-border introduction and spread which include:

- 1. The dangers to people's livestock from them feeding swill or not processing treating food waste,
- 2. Basic biosecurity hygiene practices relating to hand washing and clothes changing after handling outside livestock before handling one's own animals,
- 3. Having a suitable quarantine period after the introduction of new livestock into one's own property and observe them for illness,
- 4. Bringing in livestock and animal products across the border from Kalimantan could cause serious illness to local animals and it is illegal, risking heavy fines.

It was discussed at the risk management workshop that communication and awareness campaigns can sometimes be not very successful. The best approach to this issue may be to engage communication and sociological specialists to help with communication campaigns. Also, there may be relevant regional communication material (such as swill-feeding) messaging that is available to adapt for use. To do these behavior-changing campaigns successfully may be quite expensive but can be weighed against the cost of a FMD incursion. Clearly, enforcement of several existing regulatory actions was also a significant feature. Engagement with UKPS (Sarawak Coast Guard) on sea border control near Telok Melano is suggested as a particularly urgent step. The information on extreme and high-risk post-border risk pathways highlighted the importance of having the identified mitigation measures included in a FMD response contingency plan and SOPs.



World Organisation for Animal Health Founded in 1924 Organisation mondiale de la santé animale Fondée en 1924 Organización Mundial de Sanidad Animal Fundada en 1924

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