

FMD RISK ASSESSMENT in SOCCKSARGEN

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OBJECTIVES

SPECIFIC OBJECTIVES:

1. Identify the risk factors on FMD incursion
2. Determine the level of risk per factor
3. Assess the overall level of risk of FMD in every province/city of SOCCKSARGEN.

OVER-ALL OBJECTIVE:

To shift from general to risk-based surveillance

30 and 90 samples per province and island province, respectively

30 samples per province with medium to high FMD risk level



Cost effective surveillance system → SUSTAINABLE

FMD surveillance

Greater confidence in FMD freedom

Materials and Methods

LOCALE: SOCCKSARGEN

- Located in the heart of Mindanao which was not affected by the ASF in the Philippines, as of the date of conduct (Sept-Nov 2019)
- With four provinces and one city.

DATA GATHERING and ANALYSIS:

- Risk factors and their level of risk identified thru review of literatures and consultation with experts
- All factors broken down into components; each component scored based on its risk level

Level of Risk	Points
Low	1
Medium	2
High	3

- Two sets of expert opinion survey questionnaires formulated:
 1. for LGU Veterinarians
 2. for DA-RFO Regulatory Division Chief and RVQO Chief
- Frequency counts and means rendered from data gathered through expert opinion surveys

Results: Objectives 1 and 2

RISK FACTOR	LEVEL OF RISK
1. Knowledge of Veterinarians: Good/ Poor	Low/ Medium-High
2. Livestock Production System: scavenging small-scale confined large-scale confined/outdoor	High Low Medium
3. Biosecurity: Good-Very Good/ Fair/ Poor	Low/ Medium/ High
4. Animal Movements and Trading Patterns - Within the locality - Inter-province - Outside the region - Auction markets	Low Medium High High
5. Feeding Practice: Swill Feeding Dry or Wet Feeding/Cut and Carry Grazing/Free Range	High Low Medium
6. Disease Notification and Response Capacity - Disease Notification: Yes/ No - Field/Lab Capacity: Good-Very Good/ Fair/ Poor	Low/ High Low/ Medium/ High
Grazing/Free Range	Medium

Results: Objectives 1 and 2

RISK FACTOR	LEVEL OF RISK
7. Presence of ports	High
8. Population Density: <ul style="list-style-type: none"> - Average of 100 pigs/sq. km. - Average of 101-400 pigs/sq. km. - More than 400 pigs/sq. km. 	Low Medium High
9. Distance of farms from each other <ul style="list-style-type: none"> - Less than two kilometers - Two kilometers - More than two kilometers 	High Medium Low
10. Close proximity of ruminant to backyard pig farm	High
10. With Importation of live pigs <ul style="list-style-type: none"> - From FMD-free countries - From FMD-affected countries 	Low High
12. Foreign Visitors <ul style="list-style-type: none"> - From FMD-free countries - From FMD-affected countries 	Low High

Results: Objectives 1 and 2

Each risk factor was also ranked and given a score that will serve as multipliers to the initially generated points

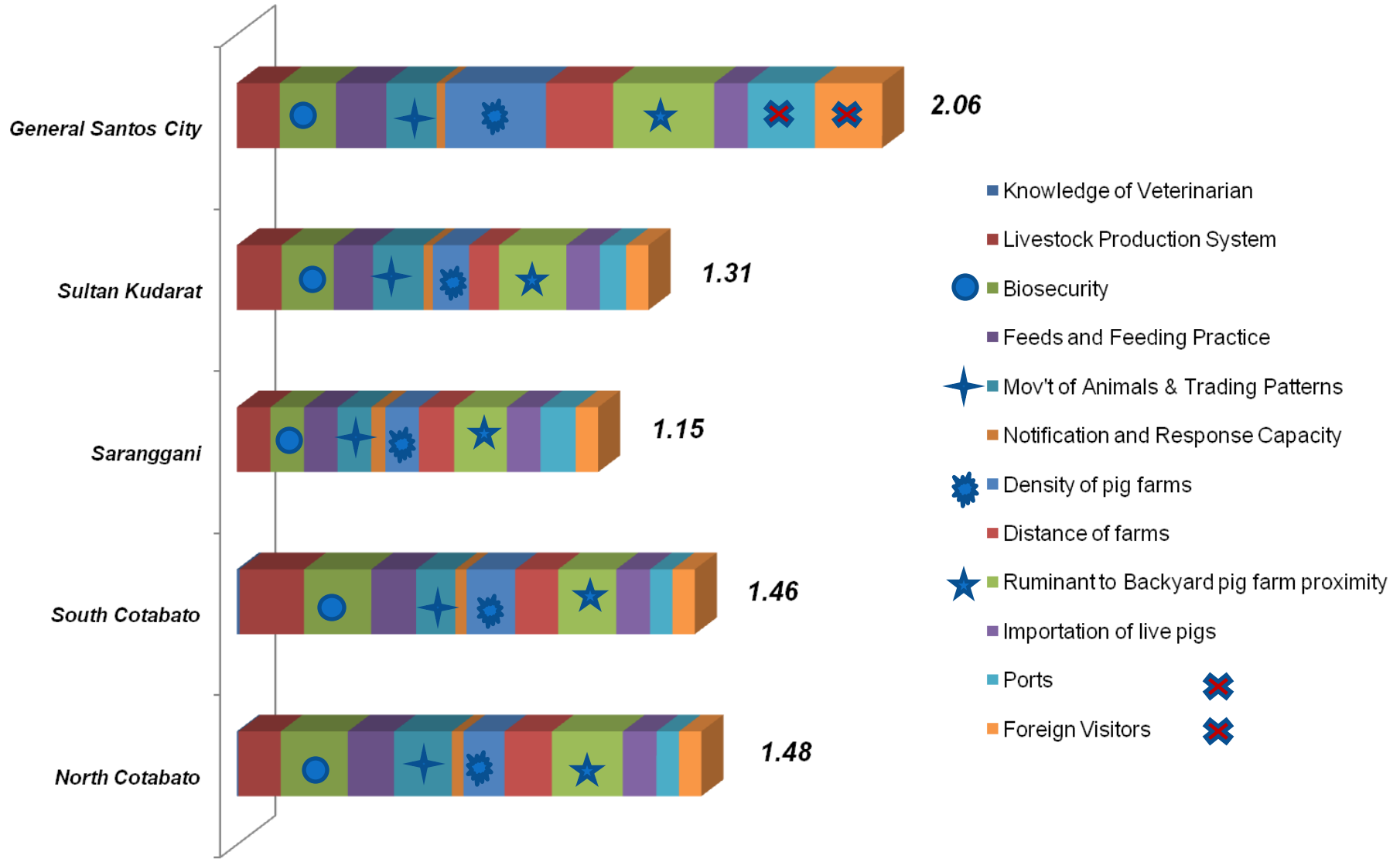
RISK FACTOR	Level of Risk	Multiplier
1. Knowledge of Veterinarians	Low	1
2. Livestock Production System	Medium	2
3. Biosecurity	High	3
4. Animal Movements and Trading Patterns	High	3
5. Feeds and Feeding Practice	High	3
6. Disease Notification and Response Capacity	Low	1
7. Presence of ports	Medium	2
8. Population Density	High	3
9. Distance of farms	Medium	2
10. Ruminant to backyard pig farm proximity	High	3
11. Importation of live pigs	High	3
12. Origin of Foreign Visitors	Medium	2

Results: Objective 3

- After determining the level of all the risk factors in a province/city, the weighted mean was computed and interpreted as follow:

Weighted Mean	Overall Level of Risk per Province/City
1.0 – 1.67	Low
1.68 – 2.33	Medium
2.34 – 3.00	High

Results: Objective 3



FMD Risk Level in provinces and city of SOCCKSARGEN

Results: Objective 3

- All 4 provinces of SOCCKSARGEN have **low** FMD risk level.
- General Santos City has **medium** risk level.
 - city has significant number of farms and big pig population density
 - pig farms are in close proximity to each other as well as to ruminant farms
 - with 3 ports: Port of General Santos City and GSC Airport (international); GSC Fish port
 - huge number of foreign visitors from FMD-affected countries

Recommendations

- Duplicate the Risk Assessment study in all regions of the country.
“Risk-based surveillance would really be a good strategy to prioritize areas of higher risk and economize on resources available (Gundran, 2019)”
- Manage/mitigate the 12 identified FMD risk factors :

High Risk:

- *Feeds and feeding practices* - Promote GAHP, strengthen implementation of feed import regulations, ban swill feeding
- *Animal movement and trading patterns; importation of live pigs* - Strict implementation of import and food safety regulations and border inspection procedures
- *Biosecurity* - Promote GAHP, IEC on biosecurity protocol
- *Population density, distance of ruminant to hog farm*- Promote GAHP and biosecurity procedures

Recommendations

Medium Risk:

- *Livestock Production System*
- *Distance of farms from each other*
 - GAHP, biosecurity protocols, enforcement of zoning ordinance
- *Presence of ports and foreign visitors from FMD-affected countries*
 - Enhance inspection procedures and provide decontamination booth

Low Risk:

- *Knowledge of veterinarians* - Provide continuous capacity training on disease diagnosis and emergency
- *Disease notification and response capacity of field units and laboratory* - Train additional personnel as support; improve laboratory diagnostic capabilities

Current STATUS

- The pilot FMD risk assessment (RA) study was submitted to the OIE in December 2019.
- The OIE Scientific Commission has reviewed the document and agreed that it should be extended to the rest of the regions.
- The country could not continue the RA in 2020 due to the COVID-19 pandemic and lockdown measures.
- The country intends to carry out the RA this year together with the cascading of the FMD mobile app for NMR submission
- Both activities were introduced to the regional and provincial FMD coordinators during a virtual meeting in Nov. 2020.
- NMR submission through the mobile app will start this 2nd quarter and the adoption of the FMD risk-based surveillance will start in 2022.

Thank you for your attention



THINGS TO DO IN CASE OF AN FMD SUSPECT/OUTBREAK

Send representative ASAP to investigate. Once you suspect an FMD outbreak in your area, call BAI immediately.

As soon as the FMD outbreak has been established, start with traceback investigation. Identify cases, deaths and population at risk.

Collect epithelium/vesicular fluid/bloodserum samples. Submit samples immediately to the FMD Laboratory, ADDRL, BAI Quezon City

Institute emergency control procedures (Quarantine, Condemnation, Disinfection, Vaccination)

Make a report and notify proper authorities (CVO/MVO, PVO, DA RFU, BAI)

Educate and notify the public through a Public Awareness Campaign.

Continue disease monitoring and surveillance.