Accelerated Course for Competency Excellence (ACE) Program: Sustainable Halal Food Security (Australia), 21 August 24 - 20 Feb 25

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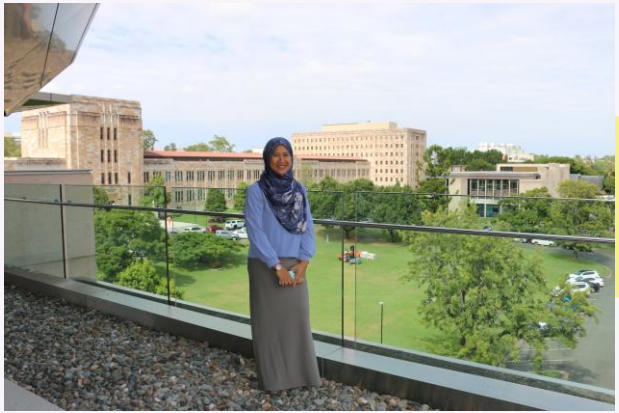
18 Jun 2025

Isi Kandungan

01 **Latar Belakang Program, Objektif, Aktiviti Utama dan Pengalaman**

02 **Pengetahuan dan Kemahiran yang diperolehi**



03 **Cadangan Penambahbaikan kepada Perkhidmatan DVS dan Kesimpulan**

01

Latar Belakang Program, Objektif, Aktiviti Utama dan Pengalaman

01. Latarbelakang dan Matlamat Program

Tarikh Kursus : 21 Ogos 2024 Hingga 23 Feb 2025
Tempoh Kursus : 6 Bulan
Tempat Kursus : International Institute for Halal Research and Training (INHART,IIUM)
dan The University of Queensland, Australia
Peserta : Pelbagai Agensi (13 Org)
Penyedia/ Intitusi Latihan: Binaskill Academy

Pengenalan Program

1) Merupakan cetusan idea daripada YAB Perdana Menteri dalam Majlis Anugerah Inovasi Perdana Sektor Awam (AIPS) 2020 pada 7 Nov 2024 untuk Pembangunan kompetensi penjawat awam dalam bidang tujahan baharu seperti Kecedasan Buatan, Peralihan Tenaga, Transformasi Digital, Keselamatan Makanan (Pertanian dan Teknologi Makanan), Pengurusan Bencana, Keselamatan Siber dan Persempadanan Negara.

Kemudahan dan Faedah :

a) Kemudahan Cuti Belajar Bergaji Penuh Dengan Biasiswa (CBBPDB)
b) Outcome Kursus hendaklah dalam bentuk program/projek inisiatif yang berimpak tinggi dan merentasi keperluan Kementerian/ Jabatan Lain

Objektif

1. Membangunkan Kepakaran Dalaman
   (Pengurusan/Teknikal)
1. Meningkatkan Kompetensi pegawai dalam disiplin Baharu bidang-bidang focus negara
2. Memberikan Latihan *hands on-training* melalui Kerjasama strategik dengan pihak industry/institusi Latihan di luar negara

02

Aktiviti Utama Dan Pengalaman Pembelajaran

Methodology Kursus: Pembelajaran adalah secara bersepadu merangkumi kuliah, perbincangan Kumpulan, pembentangan projek individu dan berkumpulan serta lawatan ke pusat penyelidikan dan industri

Faedah Kursus yang Diperolehi

1) Meningkatkan kecekapan dalam penyelesaian masalah mengunakan '*System Thinking*".
2) Medalami isu semasa seperti perubahan iklim, ekonomi circular dan cabaran dalam *global food security*
3) Mengaplikasikan teknologi terkini dalam sektor pertanian dan *food security*
4) Meningkatkan daya kepimpinan dan keupayaan komunikasi pegawai dalam merentasi sektor
5) Meningkatkan keupayaan analisis data melalui penggunaan perisian dan Teknik pemodelan yang relevan
6) Mengukuhkan kecekapan dalam pengurusan projek berkaitan *food security*.

02

Pengetahuan dan Kemahiran yang diperolehi

Towards Transforming the Malaysian Food System

The Challenge

1. How do we innovate and collaborate to create a food system in Malaysia that is both sustainable and ensures food security and equity for all

2. What strategies can be effective in the transformative process?

Challenge 1

Building Consensus on the National Food Security Blueprint Policy Statement

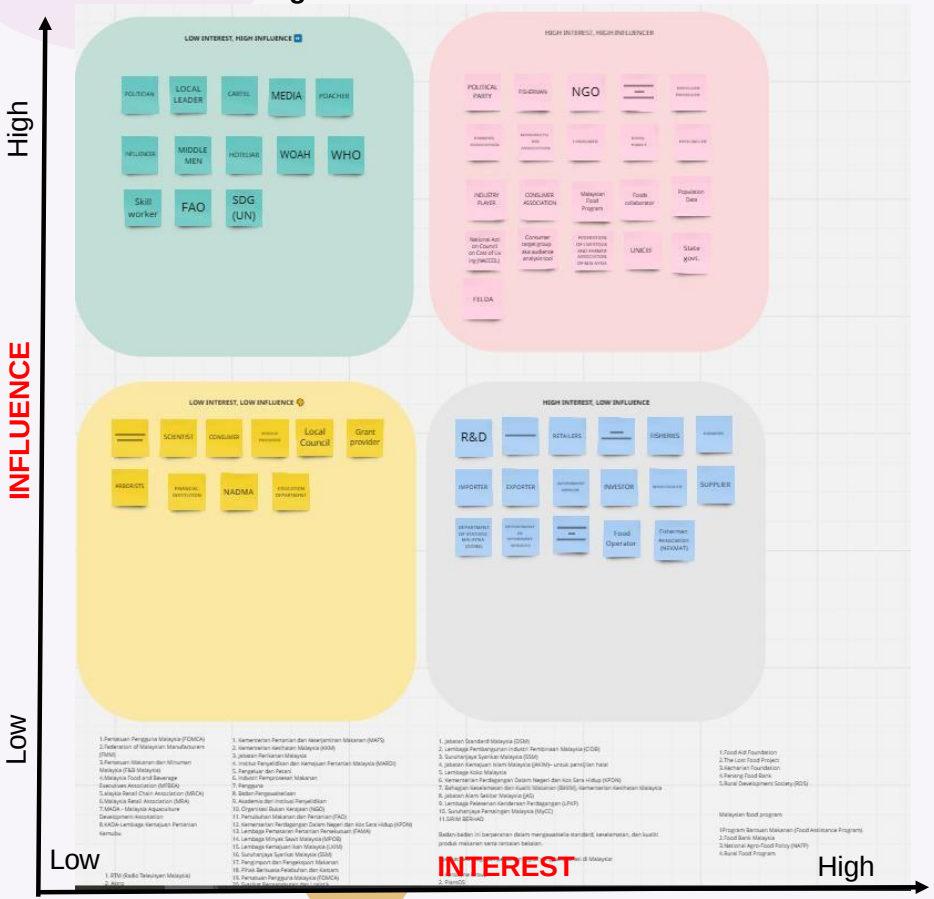
The Original Policy Statement: "Transforming Malaysia Agrofood Systems to be **Efficient, Resilient, Sustainable, and Inclusive in 2030**" ***(This does not address specific outcomes)*** **Participants Revised Statement:**

Transforming Malaysia **Agrofood Systems to be Efficient, Resilient, Sustainable, and Inclusive by 2030**, while **Improving Nutritional Outcomes**

(More targeted, process, and outcome-oriented)

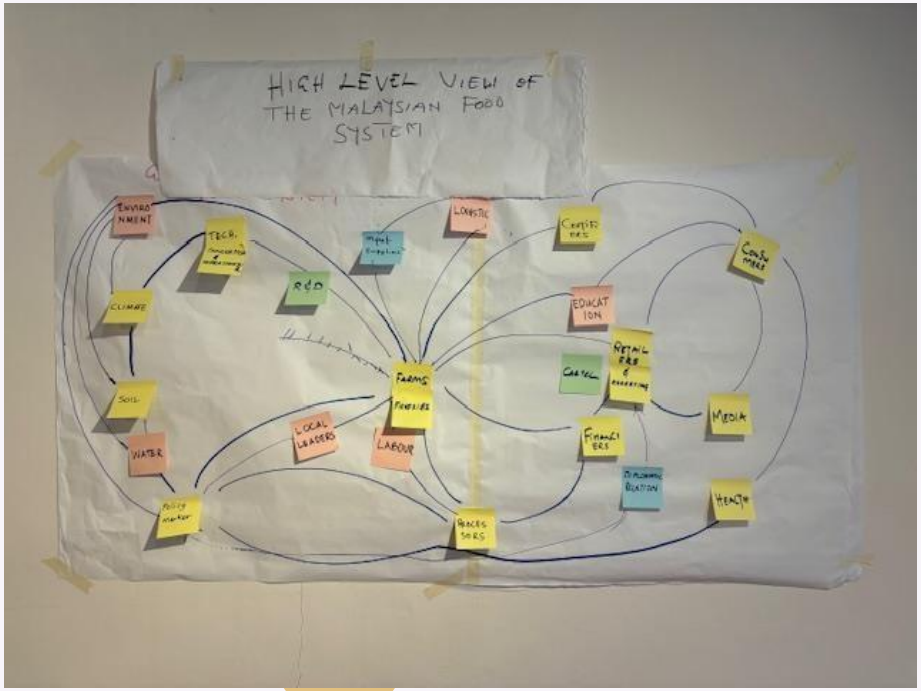
Challenge 2: Identifying, Mapping and Prioritising Stakeholders in the Malaysian Food System

Final Digitised stakeholder matrix



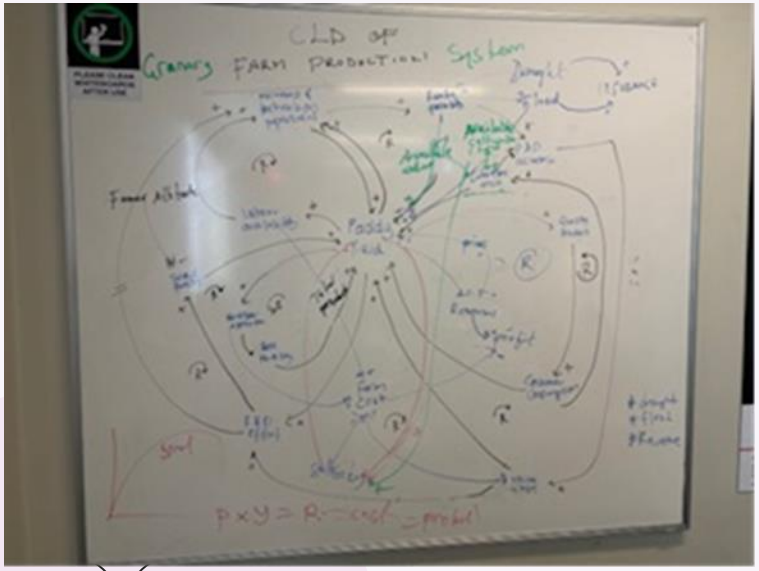
The Challenge 3

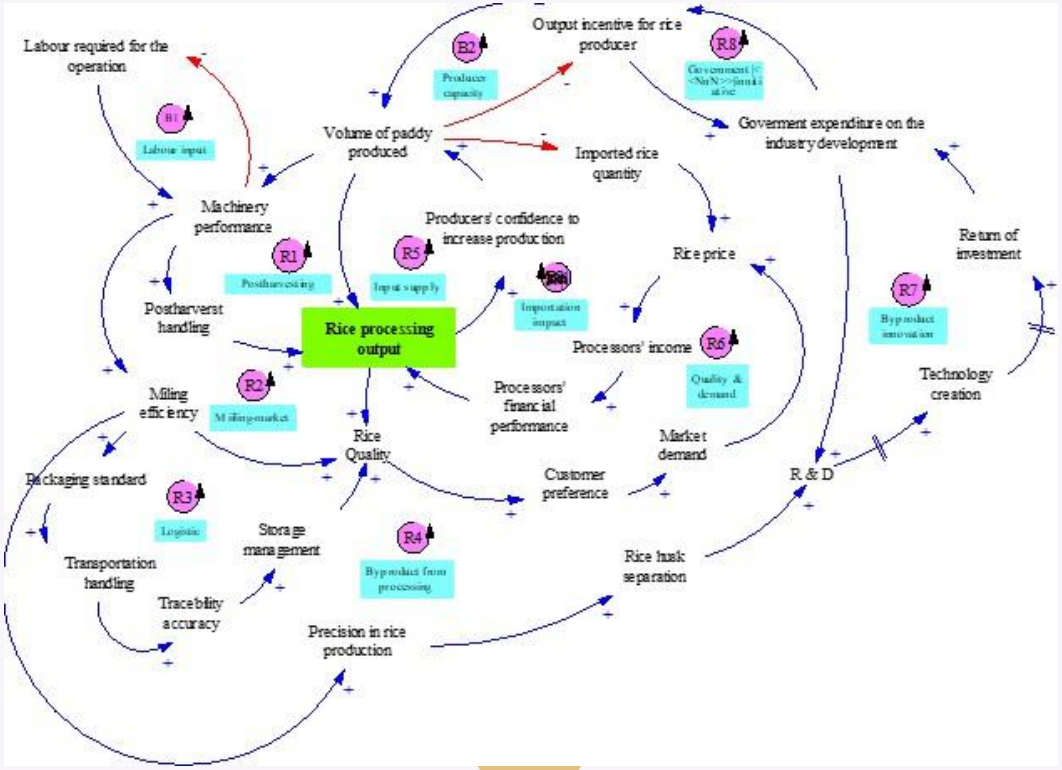
Mapping the Malaysian Food System – A High-Level System View



The Challenge 3

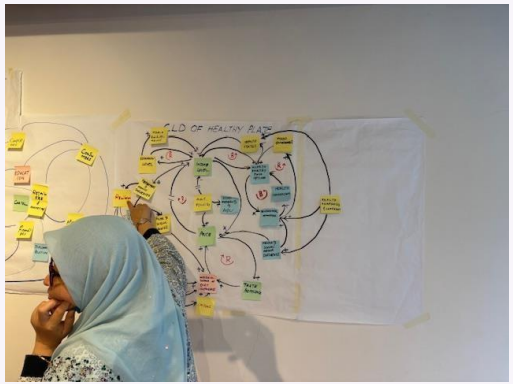
Mapping the Malaysian Food System: Food Production Subsystem

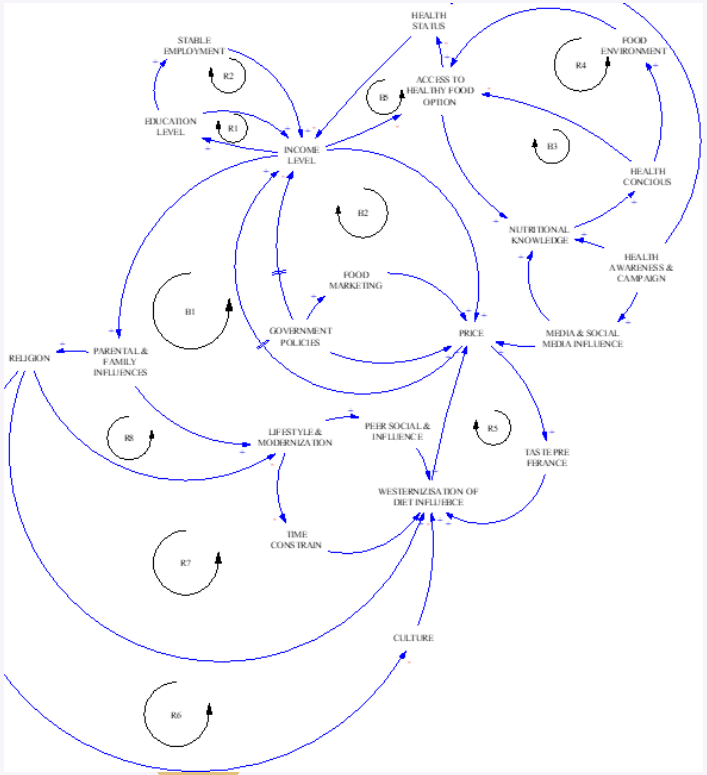




The Challenge 3

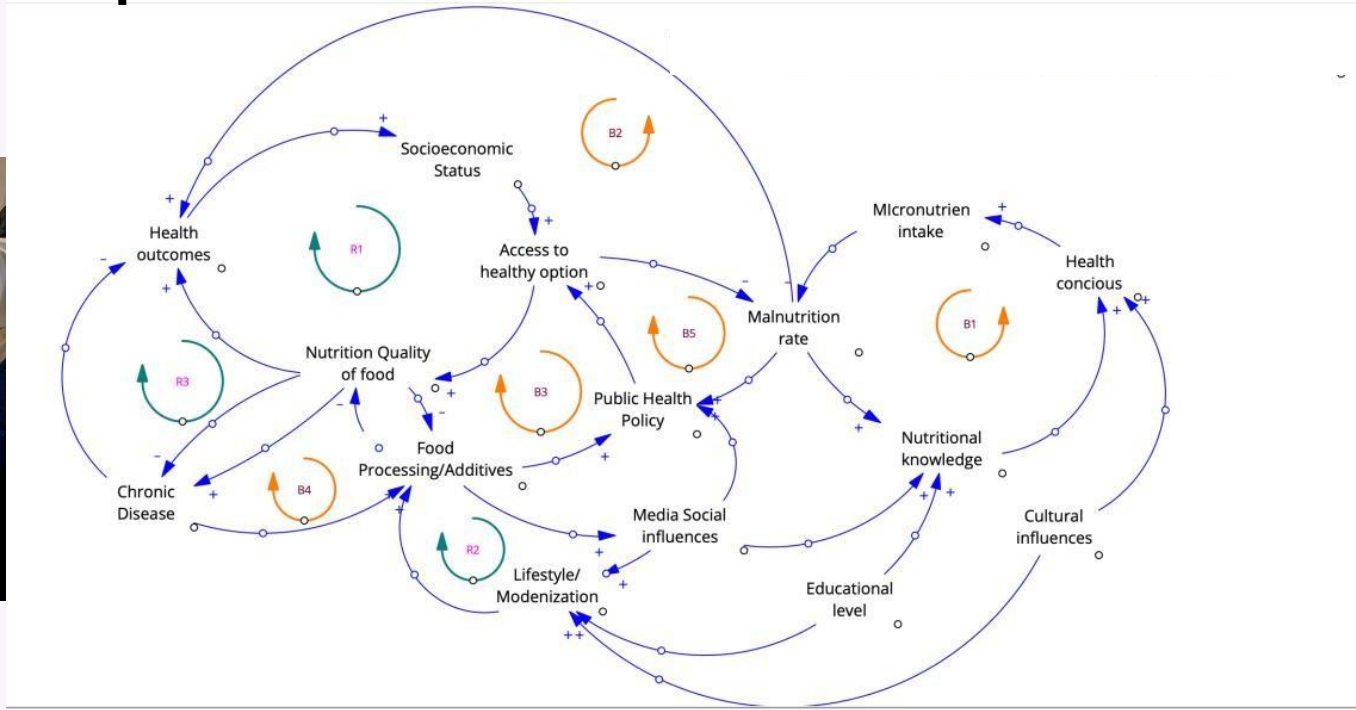
Mapping the Malaysian Food System: Healthy Plate/Consumer Behaviour Subsystem





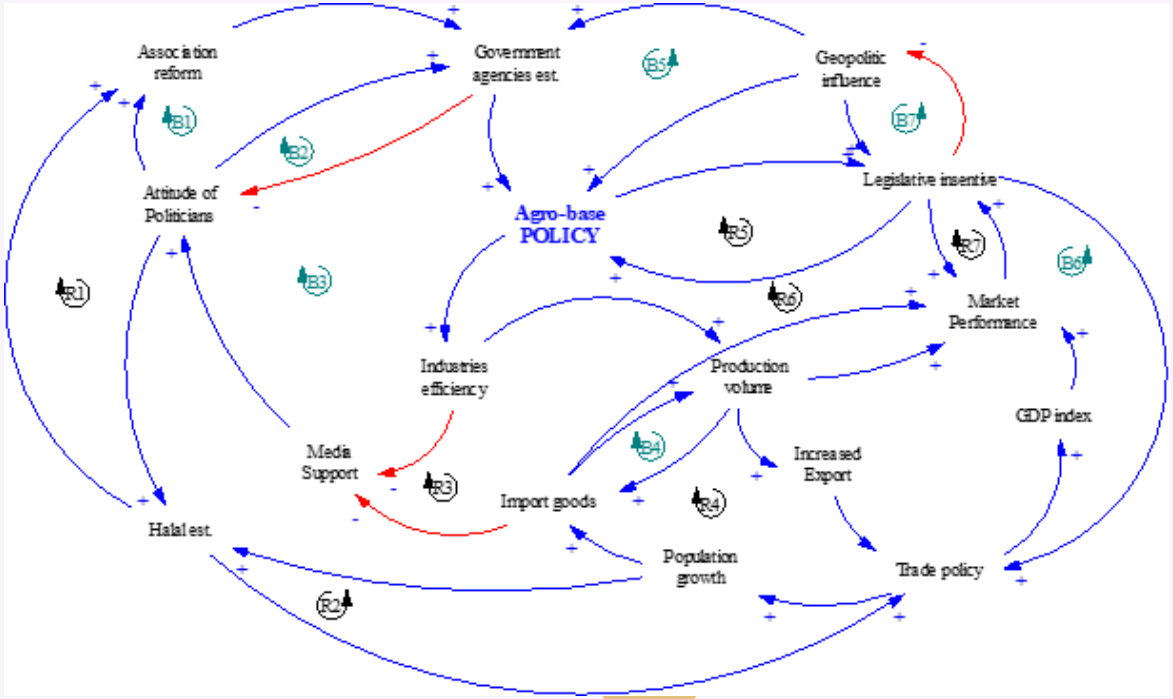
Challenge 3

Mapping the Malaysian Food System: Public Health & Nutrition Component

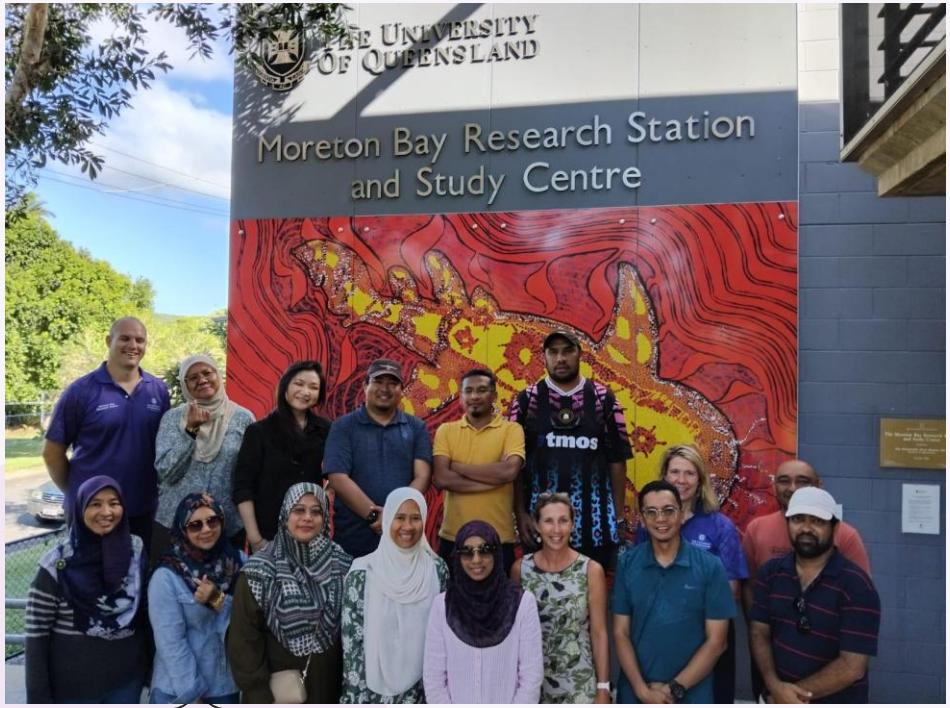


The Challenge 3

Mapping the Malaysian Regulations Subsystem



Seeing the Australian Food System with Their Feet



...And with Their Eyes

Next Steps

- ❖ Combine and validate the system maps
- ❖ Identifying leverage points for systemic transformation
- ❖ Policy integration and strategic action plan to ensure alignment with the

National Food Security Blueprint 2025-2030

- ❖ Implement small-scale pilots to evaluate feasibility of key interventions
- ❖ Build a system dynamics simulation model
- ❖ Capacity building and implementation support
- ❖ Scaling and institutionalisation

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Gambar semasa program

03

Cadangan Penambahbaikan kepada Perkhidmatan DVS dan Kesimpulan

The Global Food Systems Leadership Program (GFSLP)

Sustainable Halal Food Security: Feeding the Nation and Beyond

Food Safety Through Meat Inspection for Small Scale Poultry Slaughterhouse in Malaysia

Dr Melia Abd Salam, (Std No: 49353406)
Department of Veterinary Services
18 February 2025

Supervisors

Dr Tariq

Prof Ammar

Dr Julius

Dr Md Ali

Outline

1. Overview
2. Background & Scope
3. Research Problem
4. Material and Method
5. Result/ System Thinking
6. Conclusions and Future Direction

1. Overview Veterinary Public Health

VPH Function

1) Ensuring the safety of livestock products and livestock-based food in the entire production chain up to the consumer is clean, pure and safe to eat to protect public health.

2) Ensuring the Implementation of Veterinary Inspections that include inspections at slaughterhouses, processing plants and livestock farms in the country.

TERRESTRIAL ANIMAL HEALTH CODE SECTION 6: VETERINARY PUBLIC HEALTH

Chapter

6.1 : The role of veterinary services in food safety.

6.2 : Control of biological hazards of animal health and public health importance through ante and post mortem meat inspection

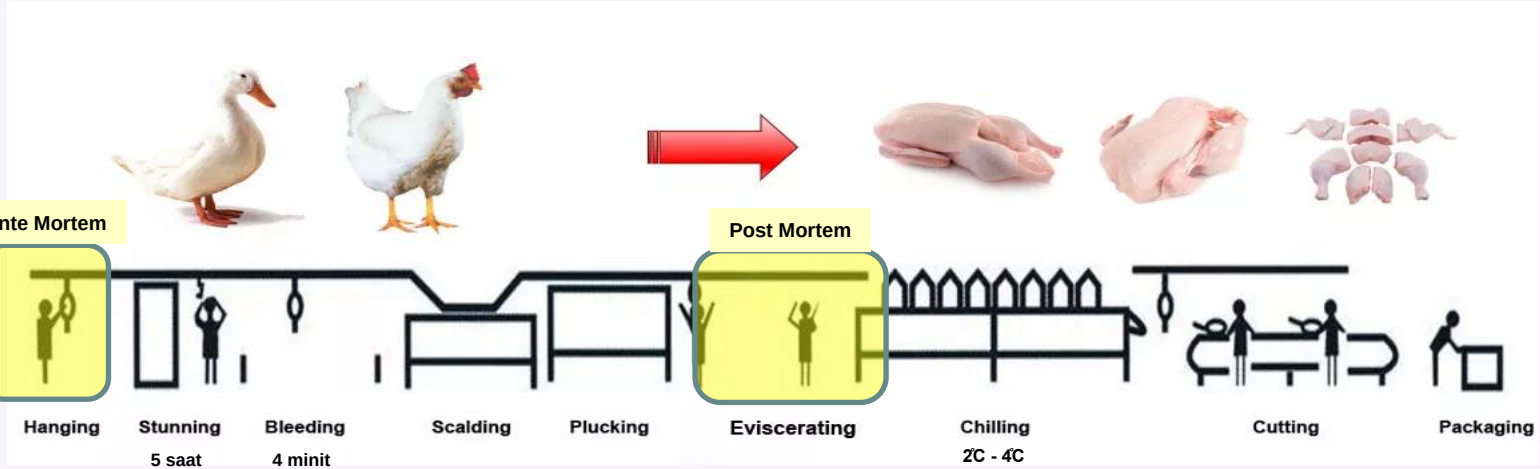
Current Implementation

The 20xx National Food Safety Monitoring Program Based on Animal Products is implemented every year by the Meat Inspection Unit (UPD), Livestock Food Safety Section (SKMHT) for farms and plants that have Good Veterinary Health Practice (GVHP) and Veterinary Health Mark (VHM) certification.

2. Background & Scope

1. Meat inspection is the last step in ensuring food safety. It is a guarantee that the food will not cause harm to the consumer when it is prepared and/or consumed according to its intended use.
2. Meat inspection services are an important requirement in ensuring the safe and clean production of meat from slaughterhouses : Codex – Code of Hygienic Practice For Meat(CAC/RCP 58-2005) and the OIE Terrestrial Animal Health Code under Chapter 6.1.
3. Meat inspection involving ante mortem and post mortem inspection is one of technical services provided by the Department of Veterinary Services (DVS) in ensuring that meat is safe and free from foodborne diseases and zoonotic.
4. World Organization for Animal Health (WOAH) evaluation of Malaysia's DVS which was implemented in 2016 and through the gap analysis released in 2017.
5. The ratio of meat inspectors to the industry is 1:14

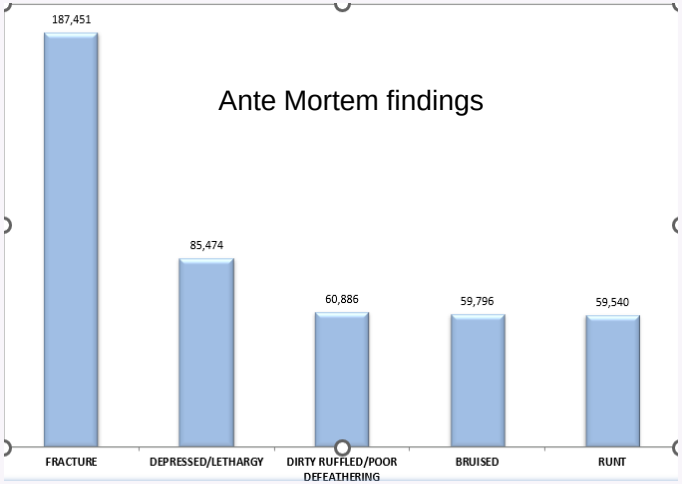
Process Flow for Chicken

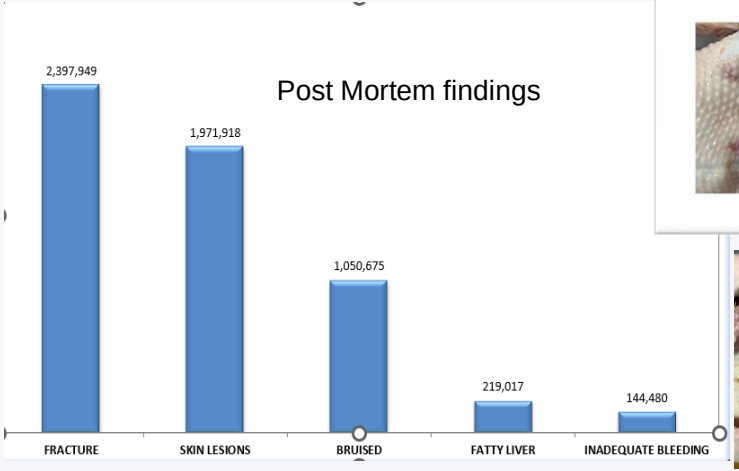


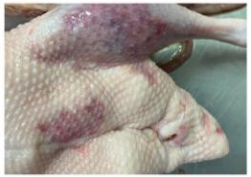
Current result of Poultry Inspection

Year	Total animals
2021	234,856,792
2022	208,717,731
2023	222,163,370

28 Poultry establishment







Background & Scope

1. REGULATION

To complete one (1) rules and two (2) procedures:
a) Revision of Meat Inspection Rules 1985
b) Development of private Meat Inspection appointment procedures
c)Development of Private Meat Inspection procedures or monitoring programme

2. AWARENESS & TRAINING

There may be a lack of awareness about meat safety for public and industry player (small scale poultry slaughterhouse owner)
Training among slaughterhouse operators and workers regarding Meat Inspection and food safety

OBJECTIVE

3. INCENTIVE

To providing incentive grants to entrepreneurs to improve facilities in slaughterhouses in order to improve hygiene and food safety.

4.MONITORING

Monitoring program through a chicken sampling program for microbial, drug residue testing and inspection

3. Research Problem

No Meat Inspection and monitoring done towards small scale poultry slaughtering house in Malaysia causing insufficient Food/meat Safety and Halal guarantee

3. Research Problem

1. Policy and Implementation Gaps

The existing policies and regulations might not adequately address the unique challenges faced by small-scale slaughterhouses, requiring tailored strategies to enhance food safety

2. Insufficient Meat Inspection Practices:

Small-scale slaughterhouses may lack the resources, infrastructure, or trained personnel necessary to carry out thorough meat inspections, leading to potential food safety risks.

3. Awareness and Training: There may be a lack of awareness or training among consumer and slaughterhouse operators and workers regarding best practices in meat inspection and food safety.

3. Research Problem

RESEARCH PURPOSES

1. Improving Regulation related to Meat Inspection :

To propose improvements or recommendations to enhance halal and meat inspection protocols specifically suited for small-scale poultry operations.

2. Improving Meat Inspection training

To propose improvements recommendations to enhanc meat inspection protocols specifically suited for small-scale poultry operations.

3. Enhancing Public Health and consumer safety

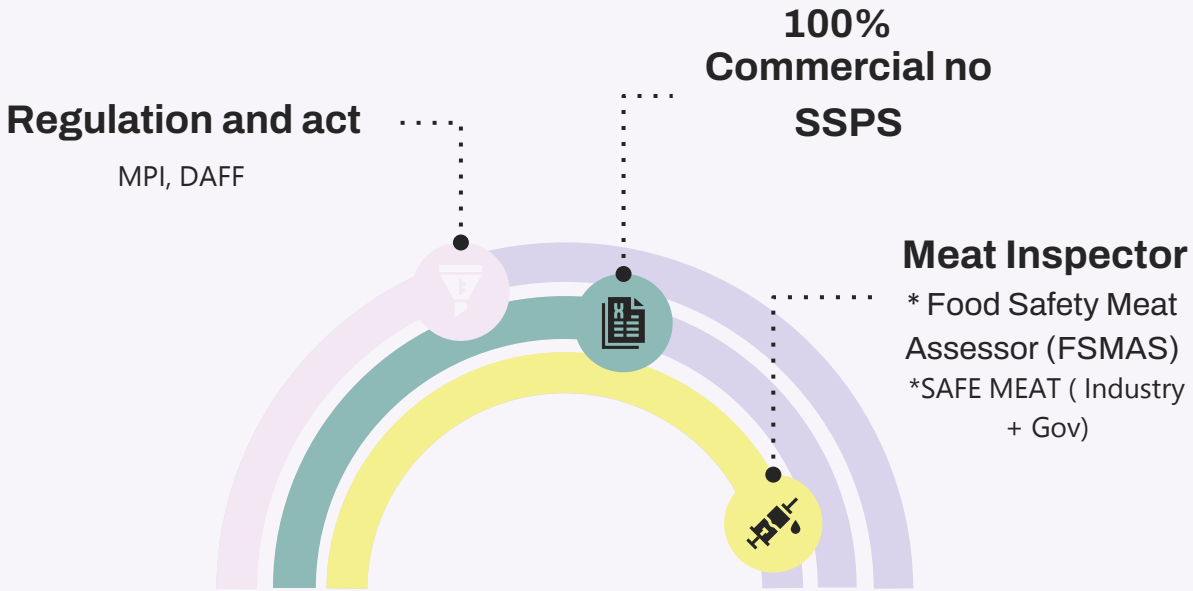
To contribute to public health by improving food safety practices, thus reducing the risk of foodborne illnesses linked to poultry meat..

Research Question

RQ 1	How can meat inspection practices be improved in small-scale poultry slaughterhouses in Malaysia to enhance food safety and ensure compliance with regulatory standards?
RQ 2	What are the key challenges faced by small-scale poultry slaughterhouses in Malaysia in implementing effective meat inspection protocols
RQ 3	How do consumer perceptions and trust in meat inspection impact the demand for poultry products from small-scale slaughterhouses in Malaysia?

5. Results & System Thinking

Research Observation/ Comparison



5. Results & System Thinking

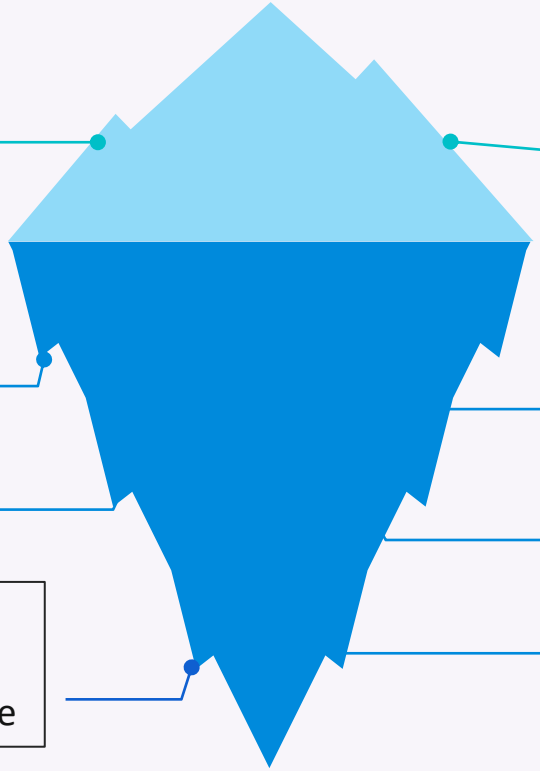
Meat Inspection For Small Scale Poultry Slaughterhouse (SSPS)- Iceberg Model

Current Event:
The quality, Safety and halal status of the SSPS chicken is unknown

Current Pattern:
No Regulation and inspection

Current Structure:
↑Food Poisoning

Current Model:
consumers think that all the chicken produced is halal and safe



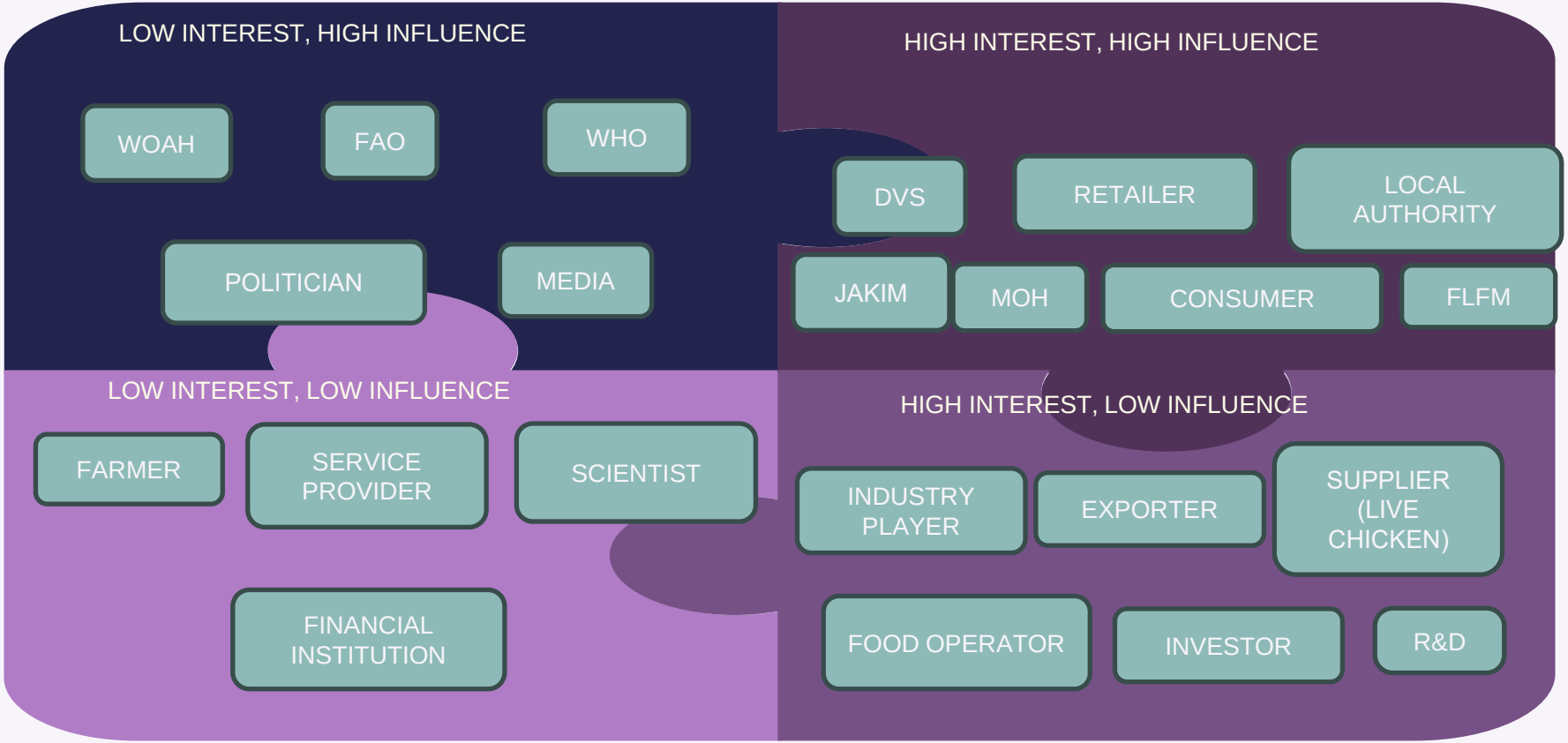
Future Event:
Quality, Safe and halal guarantee for SSPS chicken

Future Pattern:
Inspection and regulated SSPS

Future Structure:
↓Food Poisoning

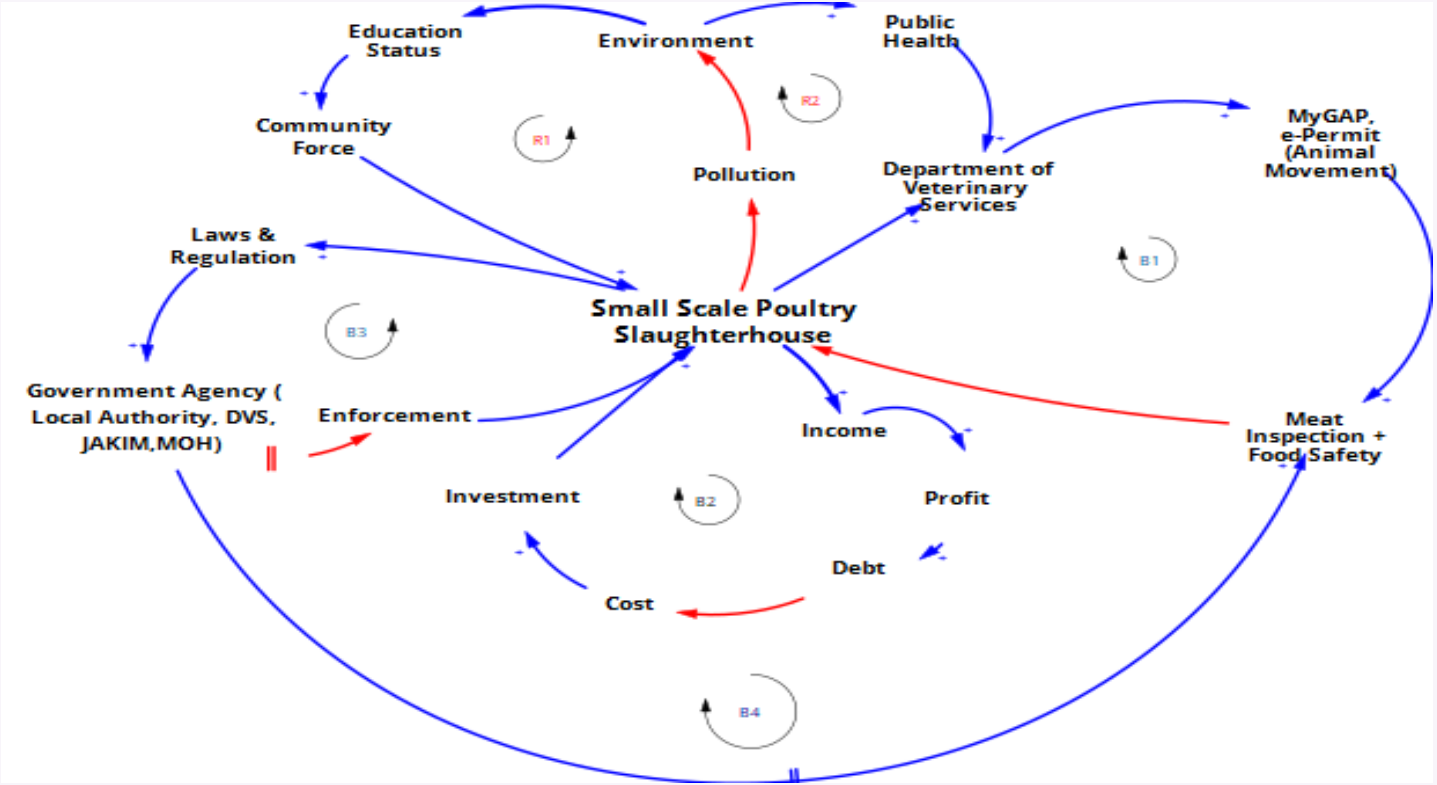
Future Model:
Systematic Meat Inspection and halal slaughter

STAKEHOLDER MAPPING

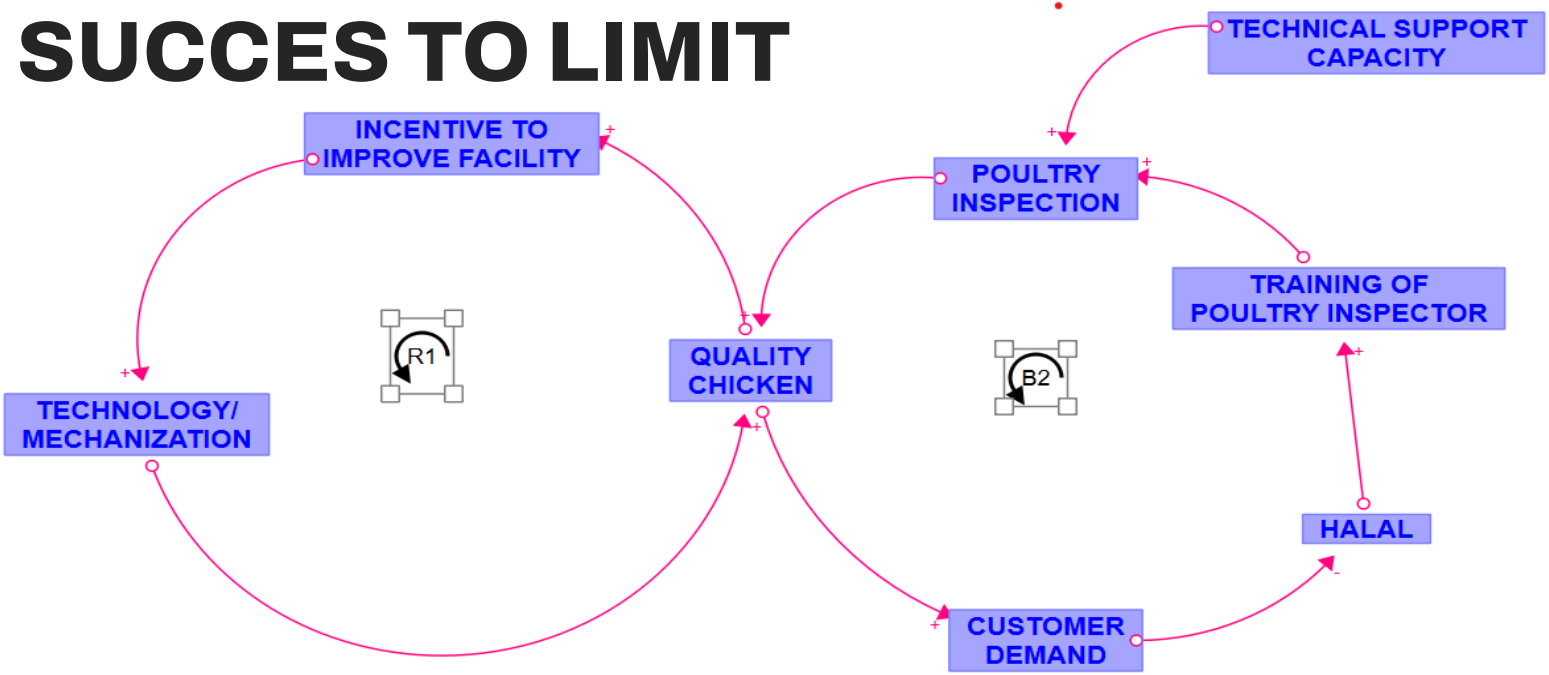


5. Results & System Thinking

CLD FOR SMALL SCALE POULTRY SLAUGHTERHOUSE

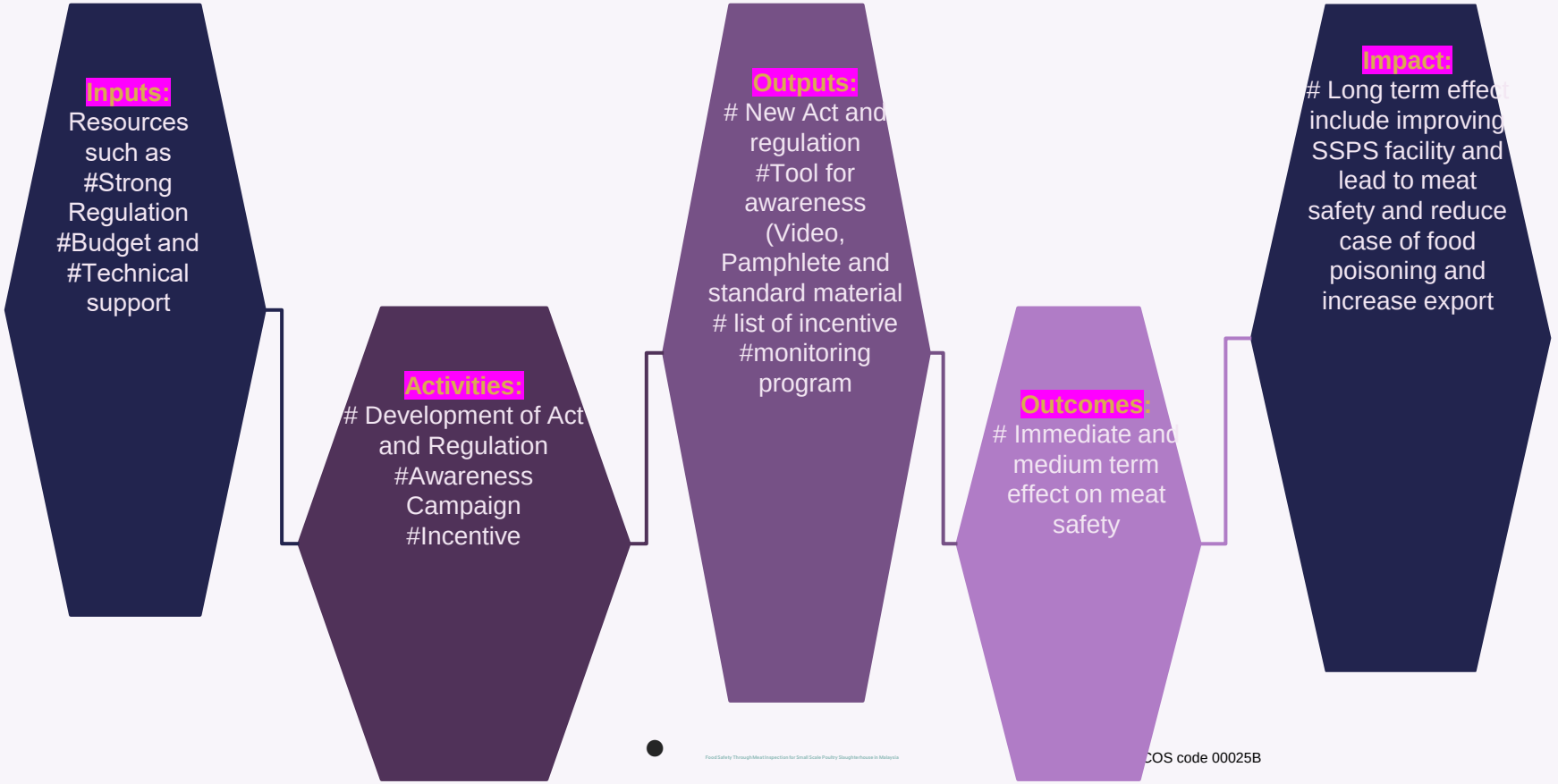


SYSTEM ARCHETYPES : SUCCES TO LIMIT



5. Results & System Thinking

IMPACT PATHWAY



5. Results & System Thinking

LITERATURE REVIEW

Author/ Year	Theoretical/Conceptual Framework	Research Question(s)/Hypothesis	Methodology	Analysis& Results	Conclusions	Implication for Future research
Suwit Chotinun et al., 2014	An integrative approach combining public health, socioeconomics, policy, veterinary medicine, and environmental perspectives to enhance small-scale poultry slaughterhouses.	How can integrative approaches address sanitation and disease prevention issues in small-scale poultry slaughterhouses in northern Thailand?	Stakeholder consultations, focus groups, direct observations, questionnaires, microbiological risk assessment (e.g., Salmonella contamination), and in-depth interviews. Study site: 41 small-scale poultry slaughterhouses in Chiang Mai, Thailand.	Found Salmonella contamination in poultry meat and environments, highlighting unhygienic practices. Identified challenges like lack of enabling policies and insufficient strategies to help small-scale slaughterhouses comply with regulations.	An integrative approach can address sanitation, disease prevention, and compliance issues at the rural development-public health interface. Results serve as a model for similar transdisciplinary challenges.	Future research should focus on effective strategies for small-scale slaughterhouse compliance and stakeholder cooperation in food safety initiatives.

5. Results & System Thinking

LITERATURE REVIEW

Author/ Year	Theoretical/Conceptual Framework	Research Question(s)/Hypothesis	Methodology	Analysis& Results	Conclusions	Implication for Future research
Zhang et al., 2020	Framework: Food safety and public health risk; based on HACCP (Hazard Analysis and Critical Control Point) concepts	What are the levels and types of microbiological contamination in raw poultry meat sold at retail markets in China? How do they vary by region and market type?	Sampling of 200 raw poultry meat samples from traditional markets and supermarkets across 10 cities in China. Pathogens such as *Salmonella* and *E. coli* were tested	*Salmonella* was detected in 45% of the samples, *E. coli* in 38%, and higher contamination rates were observed in traditional markets compared to supermarkets.	Contamination in traditional markets poses higher risks due to poor hygiene and storage practices. Better regulation and education are critical.	Examine the effectiveness of interventions such as improved cold chains, market upgrades, and public awareness campaigns to reduce contamination.

5. Results & System Thinking

Author/ Year	Theoretical/Conceptual Framework	Research Question(s)/Hypothesis	Methodology	Analysis& Results	Conclusions	Implication for Future research
N. Kotisalo, J. Lundén, et al.	Examines the effects of centralizing meat inspection and food safety inspections in small-scale slaughterhouses in Finland. The framework is based on regulatory challenges, economic fairness, and food safety compliance	Did the centralization of meat inspection lead to the standardization of meat inspection fees in small-scales/hterhouses? How did What were the early effects of centralization on food safety inspections in small-scale slaughterhouses?	**Study Design:** Quantitative and qualitative research using surveys and interviews. **Data Collection:** questionnaire was sent to all 52 small-scale slaughterhouses in Finland 12 small-scale slaughterhouses were interviewed Phone interviews were conducted with official veterinarians of 10 s/hterhouses	- The introduction of a fixed hourly taxation structure reduced fee variation - No significant correlation between meat inspection fees and the number of slaughtered animal units. - Majority of FBOs experienced decreased fees due to government subsidies.	Centralization successfully standardized meat inspection fees and improved guidance for veterinarians. However, a lack of food safety inspections post-centralization poses potential risks to meat safety.	Need for further studies on the long-term impact of centralization on food safety compliance. - Investigation into why food safety inspections decreased and how to improve their enforcement.

6. Conclusions & Future Direction

6. Conclusions & Future Direction

CURRENT UPDATE

Activity				
Engagements with related agency	Middle Zone May 17, 2024	Northern Zone July 11, 2024	Southern Zone July 30, 2024	Eastern Zone Nov 26, 2024
Application for RMKe 13 Budget	Present to DVS committee Sept 2024	Present to MAFS 5 Feb 2025		
Implementation on 2026-2030				

6. Conclusions & Future Direction

CURRENT UPDATE
Outcome from 4 engagement session:

- Government agencies involved in engagement sessions are Local Authority, State Department of Islamic Religion, Secretary of State Government and State Occupational Health Division

- All relevant departments agreed that control and monitoring should be implemented to ensure food safety and reliable halal status for chickens processed in SSPS

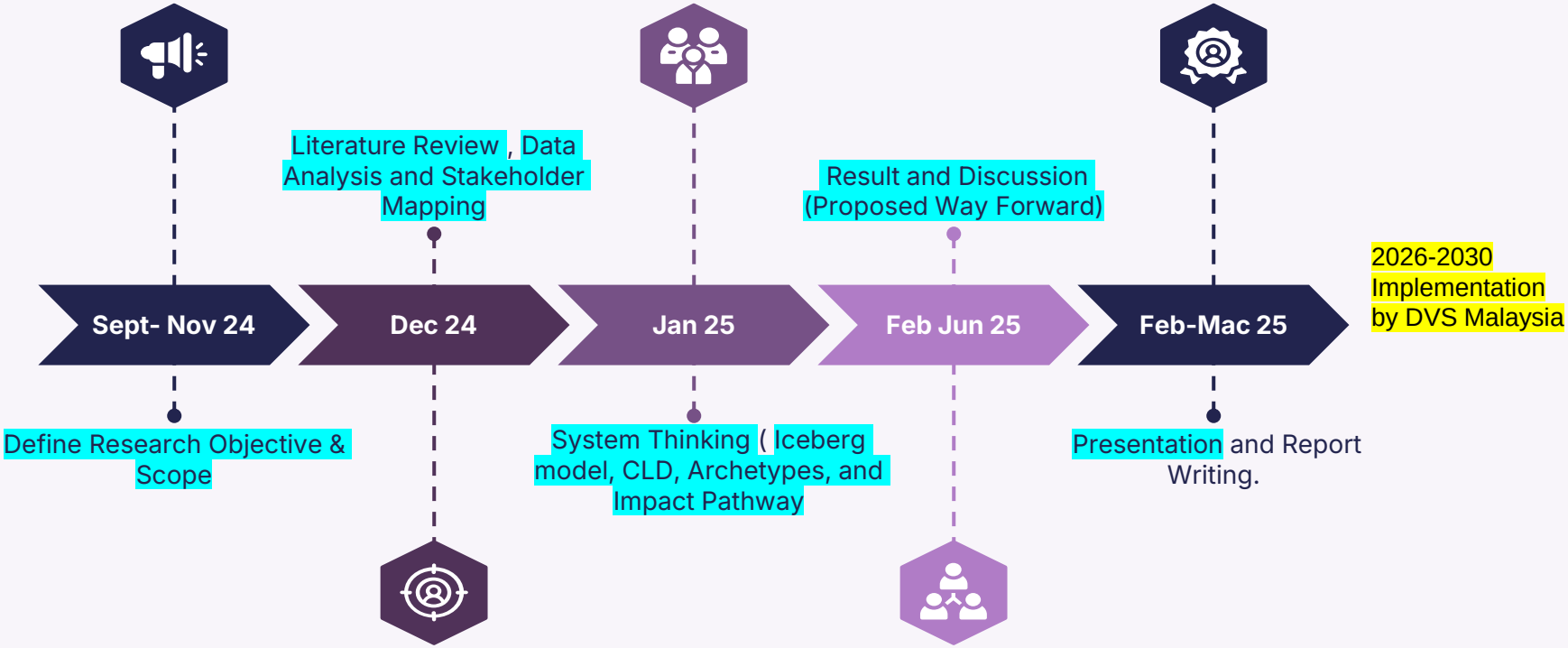
- Workshops will be held for the preparation of related regulations so that they include the duties of related agencies and they can be implemented

Future Direction

- New regulation create and implemented to ensure safety and halal status of poultry meat at Malaysia.
- Entrepreneurs have a comprehensive awareness of hygiene and sanitation aspects and improve the use of facilities and technology better.
- Consumer have better knowledge about food safety

6. Conclusions & Future Direction

Project Timeline



Actual Project Timeline

Task	2025	2026	2027	2028	2029	2030
Task 1	Review and developing new regulation					
Task 2	Awareness and Training programme related to food safety and meat inspection					
Task 3	Incentive – to improve or upgrade facility					
Task 4	Monitoring by sampling programme and inspection					

6. Conclusions & Future Direction

4 thrusts and **6 enablers**

41 strategies

68 initiatives

Vision

The National Food Security Blueprint aims to transform Malaysia's agrofood systems to deliver sufficient, safe and nutritious food, prioritising the well-being, and health of the citizens, while ensuring a sustainable environment for future generation

Strategy 4

1. Strengthen governance mandatory myGAP certification for essential food items and broaden myGAP criteria to include criteria for urban farming.
2. Introduce marketing restriction on foods high in fats, sugar and/or salt (HFSS) to children.
3. Enhance Malaysia's commitment in the CODEX and other International Meetings
4. Strengthen risk-based approach for enhanced safety and public health.

Penutup Program


BRISBANE

Thanks!

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