

ENACTING CHANGES IN MALAYSIA



Zalini Yunus, PhD
Senior Director
STRIDE's BWC Nucleus
Ministry of Defence, Malaysia

BIOLOGICAL THREATS



**DISEASES
OUTBREAK**

**Naturally
Occurring**

**Deliberate
release of
pathogen/
Bioterrorism**

**Accidental
Release |
Laboratory
Acquired
Infection (LAI)**

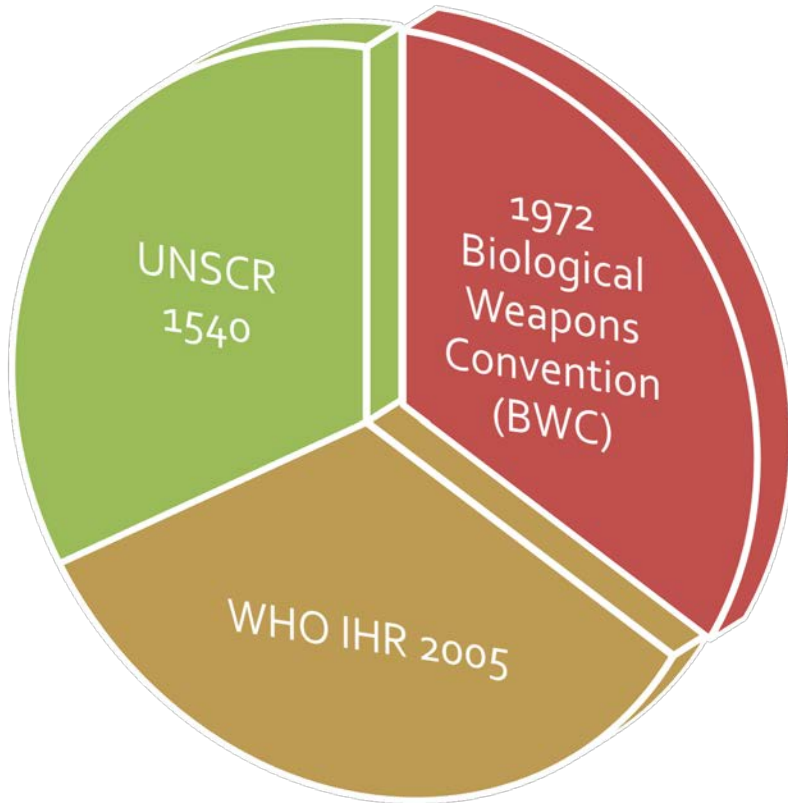


NATURAL VS MAN MADE

- Difficult to determine whether the biological incidents is deliberately or naturally spread.
- Difficult to differentiate between peaceful and hostile purpose.



INTERNATIONAL LEGAL FRAMEWORK FOR BIOSECURITY



BWC - Consensual agreement:

- Improve biosafety and biosecurity
- More focus on oversight, education, awareness level, and adoption and/or development of codes of conduct.



Biological
revolution could
lead to potential
misuse



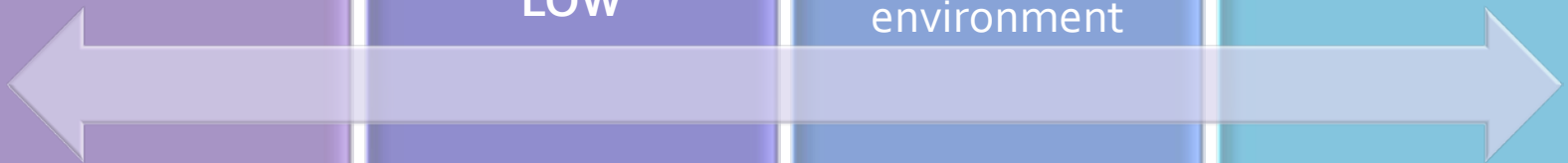
The level of
awareness and
understanding on
BWC, biosecurity
and dual-use
research:
LOW



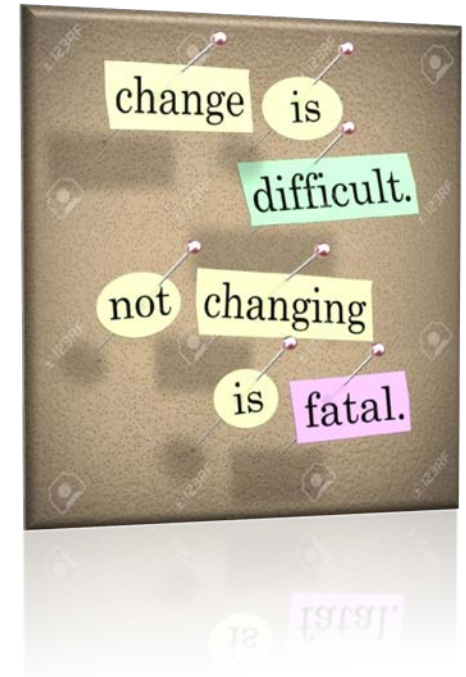
Bioscience
research
community has
not been
accustomed to
operating in a
security conscious
environment



Huge gaps
between sectors
in the ability to
prepare for &
respond to
biological threats



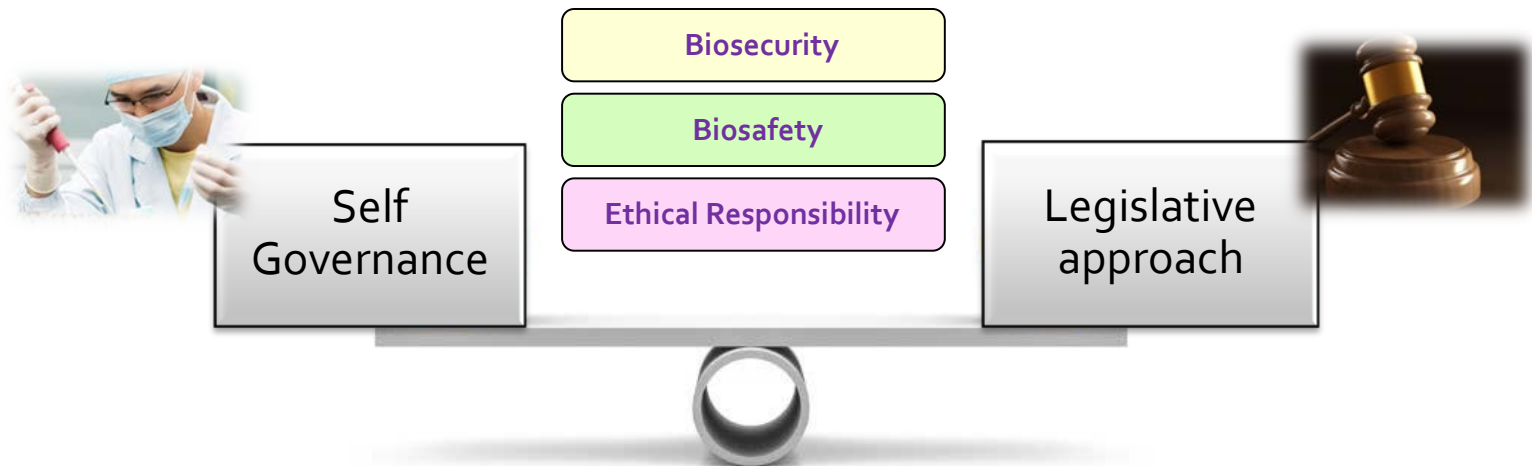
CHALLENGES



Need to strengthen national capability and capacity building in preparedness and response to biological threats, as well as to provide a safe and secure environment for life sciences communities to carry out research.

**LACK OF KNOWLEDGE & EXPERTISE:
HOW TO MOVE FORWARD?**

SELF-GOVERNANCE VERSUS REGULATION



- To develop an effective response, we need to do both. We need self-governance and we need regulation.
- Culture of responsibility

BIOSECURITY: NATIONAL PREVENTIVE MEASURES

Legal framework

- The implementation of a programme that incorporates biosecurity measures and biorisk management

Code of Conduct for Biosecurity

- To **promote transparency** of the risks of misuse of biological agents and other life sciences research.

PARTNERSHIP IN ORGANISING PROGRAMMES ON BIOTHREATS, BIOSECURITY & BIORISK MANAGEMENT

1. **Workshop on the Development and the Implementation of Biosecurity and Biorisk Management Programme : 26 – 29 November 2012, STRIDE**



2. **Workshop on the Development of Biorisk Assessment Toolkits : 26 – 26 February 2013, STRIDE**



3. **Workshop on Collaborating Across Sectors to Prepare for and Respond to Biological Incidents : 19 - 22 August 2013, Melaka**

Partnership with CBEP DTRA, Royal Malaysia Police, Ministry of Health, Ministry of Foreign Affairs, Academy of Sciences Malaysia, National Security Council and Department of Veterinary Services



4. **Bioterrorism: Introductory Science to Law Enforcement Training Program, 2 – 4 June 2014, Kuala Lumpur.**



5. **Blazing Tiger 2014: Bioincident Multisectoral Coordination Exercise, 23 - 24 June 2014, Putrajaya**

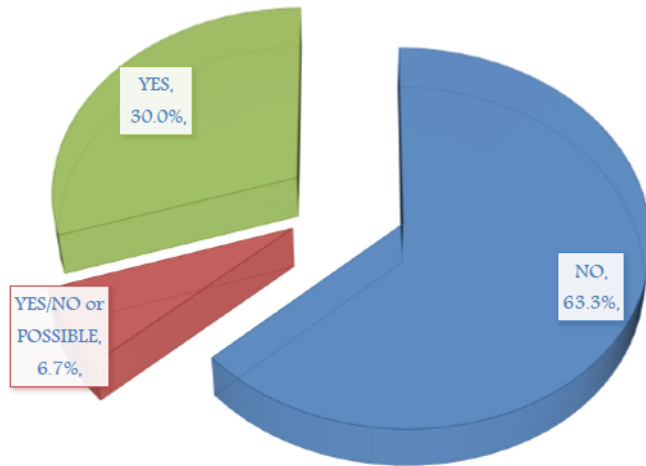
6. **National Academic Seminar
on Biothreats & Biorisk:
Bridging Science and
Security, 27 – 28 October
2015, Penang**
3rd Consultation with
Stakeholders on Draft Bill



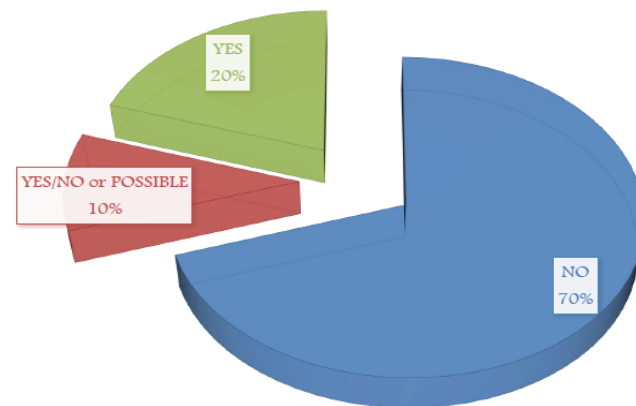
7. **Southeast Asia Discussion
on Biothreats Biosecurity:
Multisectoral Regional
Coordination, 29 – 31
October 2015, Penang**



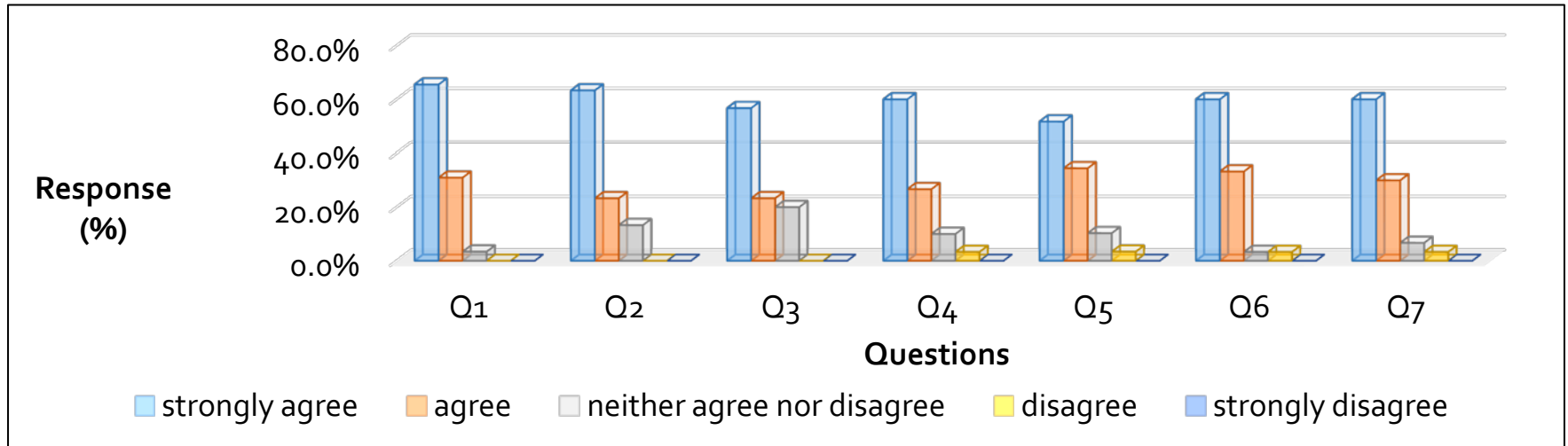
Do you think that the bill will impede current research progress?



Do you think that the Bill will discourage researcher to work with regulated biological agents and toxins in the future?



DRAFT BILL: CONSULTATIONS WITH STAKEHOLDERS



The draft Bill shall be able to :

- Q1: Ensure country fulfil obligations under the Biological Weapons Convention (BWC) and United Nations Security Council Resolution 1540
- Q2: Enhance national security against biological threats.
- Q3: Prevent intentional or negligent release of or misuse of regulated biological agents and toxins;
- Q3: Further improve the implementation of laboratory biosecurity and biorisk management programme at the laboratories concern.
- Q4: Be able to provide biorisk evaluation for laboratories working with controlled biological agents and toxins.
- Q5: Facilitate better safeguards of regulated biological agents and toxins in the country
- Q6: Assist and provide researchers to work in safe and secure environment.



8. **Workshop on the Development of Code of Conduct for Biosecurity, 3 & 4 June 2015, Melaka**



9. **National Interagency Joint Bioincident Investigations Workshop, 17 – 20 August 2015, STRIDE**

COC ROADSHOW



States:

Penang, Kuala Lumpur, Putrajaya,
Kelantan, Perak, Melaka, Pahang

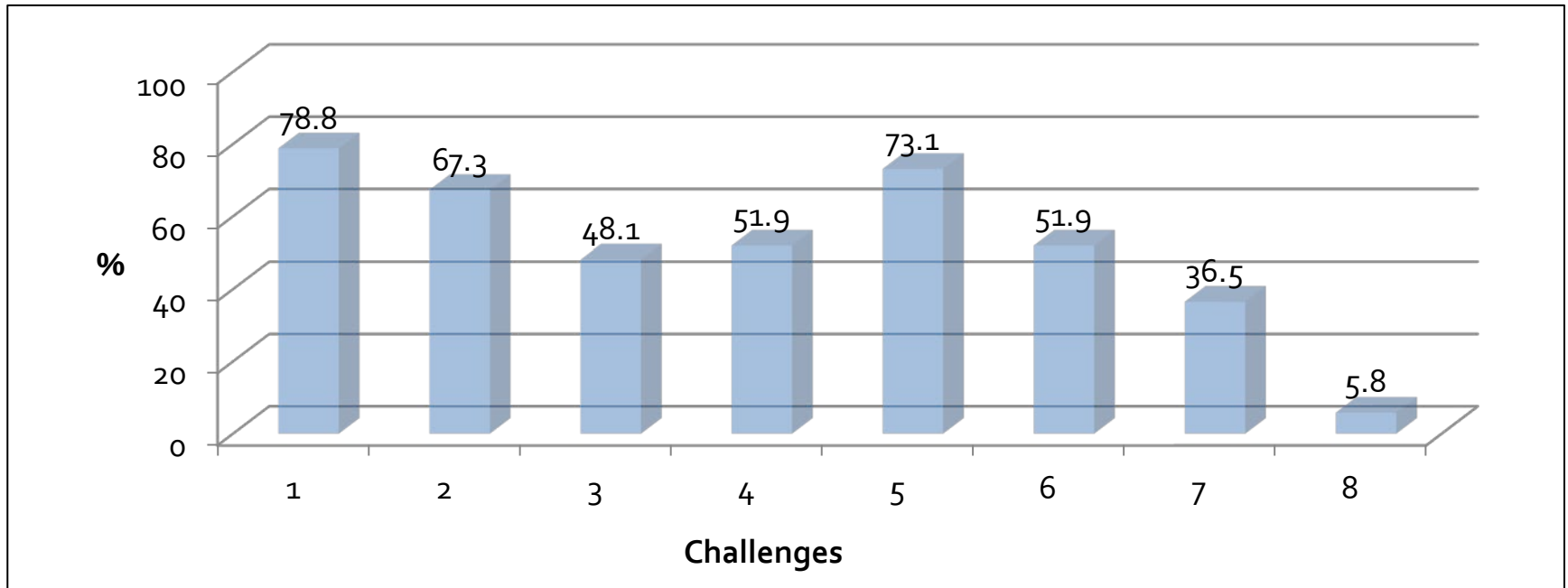
Audiences:

Academia, Students, Researchers, Policy
Makers (GRI, Universities & Industries)

Scenarios:

- THE UNEXPECTED RESULT
- MALICIOUS INTENT

SURVEY on challenges in implementing biosecurity & biorisk management / coordinating multisectoral bioincident investigation / preparing for and responding to bioincident



1: Lack of expertise/training

2: Lack of experience

3: Lack of knowledge / guidelines

4: Heavy workload

5: Lack of resources (budget, manpower etc)

6: Lack of lab/facilities/equipements/tools

7: Lack of support from management

8: Other

10. **National Seminar on Convergence of Biological & Chemical Security: Trends & Culture of Responsibility**, 7 December 2015, Kuala Lumpur



11. **SEA DRAGONS II "ASEAN Discussion on Preparedness against Chemical & Biological Threats: : Assessment of Scientific, Prevention and Response Capabilities"**, 9 – 11 December 2015, Kuala Lumpur

12. Bioincident Response Evaluation Workshop (BREW), 20 -22 Sept. 2016 , Kuala Lumpur



- Strengthening understanding and collaboration between sectors
- Managed to establish interagencies mechanisms/SOPs

WHAT'S NEXT?

- Conduct assessment on biosecurity capability to handle biosecurity issues
- Provide assessment tools
- Enhance train the trainers program
- Continue education and awareness programmes
- Strengthen national capability and capacity building
- Collaborations with international partners



Thank You!



"A Journey of a thousand miles begins with a single step"



Zalini Yunus, PhD
Senior Director
STRIDE's BWC Nucleus
Ministry of Defence, Malaysia
Email : zalini.yunus@stride.gov.my / yzalini@yahoo.co.uk