2

ADVANCED RESEARCH WORKSHOP (ARW)
CLIMATE CHANGE AND NATURAL HAZARDS IN THE EURO-MEDITERRANEAN REGION: SECURITY IMPACTS AND CRISIS MANAGEMENT

Scientific partner

Often neglected and forgotten biosecurity in Agribusiness sector

- **Covid pandemic escalates biosecurity at the highest level**

- **Biosecurity issues in agribusiness is lack of attention**

- **BWC and State Parties take action to address this issue**

- **Civil Society play an important role in closing the gap**

3

ADVANCED RESEARCH WORKSHOP (ARW)
CLIMATE CHANGE AND NATURAL HAZARDS IN THE EURO-MEDITERRANEAN REGION: SECURITY IMPACTS AND CRISIS MANAGEMENT

Scientific partner

Biosecurity risks posing threat to the Agribusiness in 21ˢᵗ century

- **Biosecurity risks to animals**
    - Bovine spongiform encephalopathy
    - Bluetongue virus
    - Avian flu
- **Biosecurity risks to plants/environment**
    - Black stem rust (*Puccinia graminis* f.sp *tritici*)
    - Climate change and crop failure
    - Genetic editing of plant
- **Biosecurity risks to the food supply chain**

NATO
OTAN

This workshop is supported by: The NATO **Science** for **Peace** and **Security** Programme

4

ADVANCED RESEARCH WORKSHOP (ARW)
CLIMATE CHANGE AND NATURAL HAZARDS IN THE EURO-MEDITERRANEAN REGION: SECURITY IMPACTS AND CRISIS MANAGEMENT

Scientific partner

Urgent need for biosecurity education within agribusiness sector

- **Biosecurity education gaps**
  Survey on 199 university courses relating to agribusiness across the European countries
  only 4% contain biosecurity elements
  0% address agroterrosim, agrocrime or bioweapons
  0% include Economical, Physical, Psychological and Political implications

5

ADVANCED RESEARCH WORKSHOP (ARW)
CLIMATE CHANGE AND NATURAL HAZARDS IN THE EURO-MEDITERRANEAN REGION: SECURITY IMPACTS AND CRISIS MANAGEMENT

Scientific partner

Urgent need for biosecurity education within agribusiness sector

- **Horizon European call**
  "Prevention, detection, response and mitigation of chemical, biological and radiological threats to agricultural production, feed and food processing, distribution and consumption", reference number: HORIZON-CL3-2024-DRS-01-01
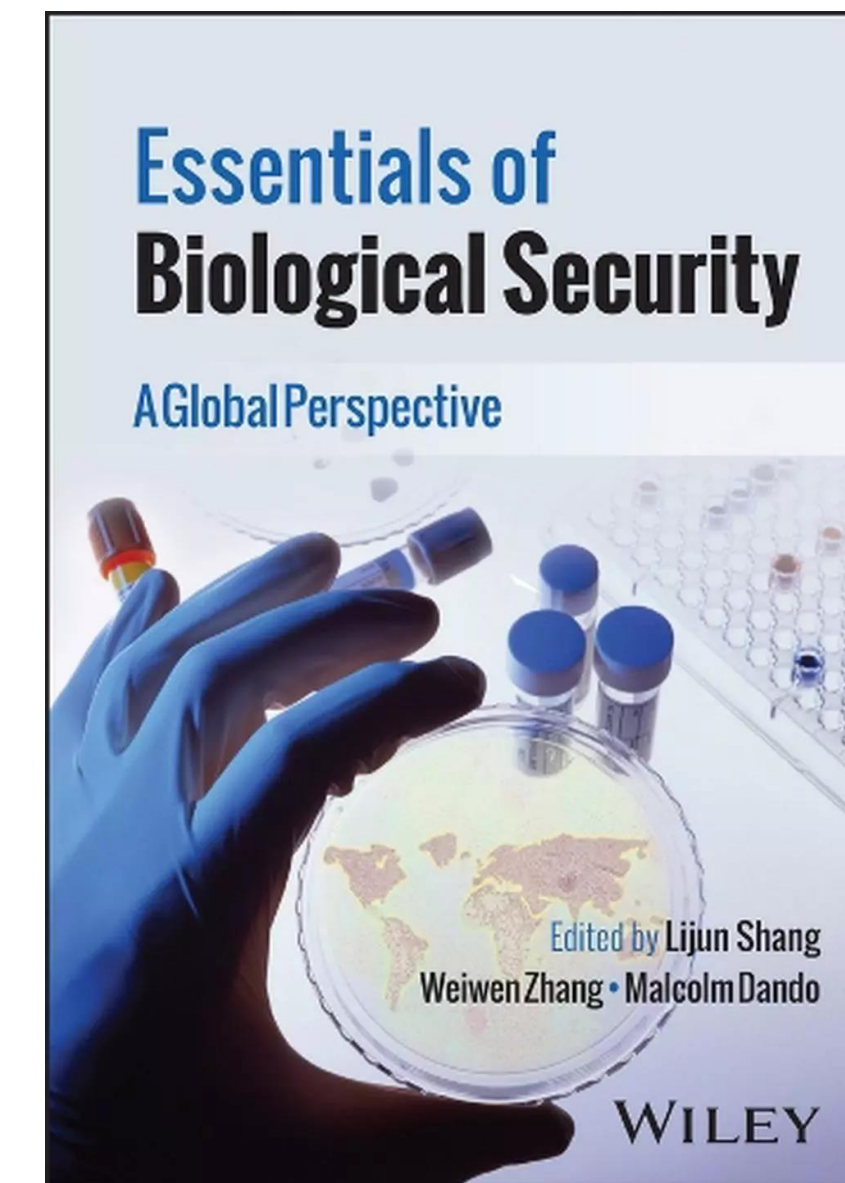
6

ADVANCED RESEARCH WORKSHOP (ARW)
CLIMATE CHANGE AND NATURAL HAZARDS IN THE EURO-MEDITERRANEAN REGION: SECURITY IMPACTS AND CRISIS MANAGEMENT

Scientific partner

International Biological Security Education Network (IBSEN)

- **IAEA/INSEN & OPCW/ABEO**

- **https://ibsen.org.uk/**

- **First biosecurity resource book**

- Essentials of Biological Security:

  A Global Perspective

Essentials of Biological Security
A Global Perspective

Edited by Lijun Shang · Weiwen Zhang · Malcolm Dando

WILEY

NATO OTAN — This workshop is supported by: The NATO Science for Peace and Security Programme

7

ADVANCED RESEARCH WORKSHOP (ARW)
CLIMATE CHANGE AND NATURAL HAZARDS IN THE EURO-MEDITERRANEAN REGION: SECURITY IMPACTS AND CRISIS MANAGEMENT

Scientific partner

Lijun Shang

Olivia Ibbotson

This workshop is supported by: The NATO **Science** for **Peace** and **Security** Programme

8

ADVANCED RESEARCH WORKSHOP (ARW)
CLIMATE CHANGE AND NATURAL HAZARDS IN THE EURO-MEDITERRANEAN REGION: SECURITY IMPACTS AND CRISIS MANAGEMENT

Scientific partner

Thank You!

Professor Lijun Shang
Biological Security Research
Centre (BSRC)
London Metropolitan University,
UK

l.shang@londonmet.ac.uk

NATO
OTAN

This workshop
is supported by:

The NATO **Science** for **Peace**
and **Security** Programme