United Nations Office for Disarmament Affairs

GCSP Geneva Centre for Security Policy

Side event on the Operationalization of
Article VII of the Biological Weapons Convention

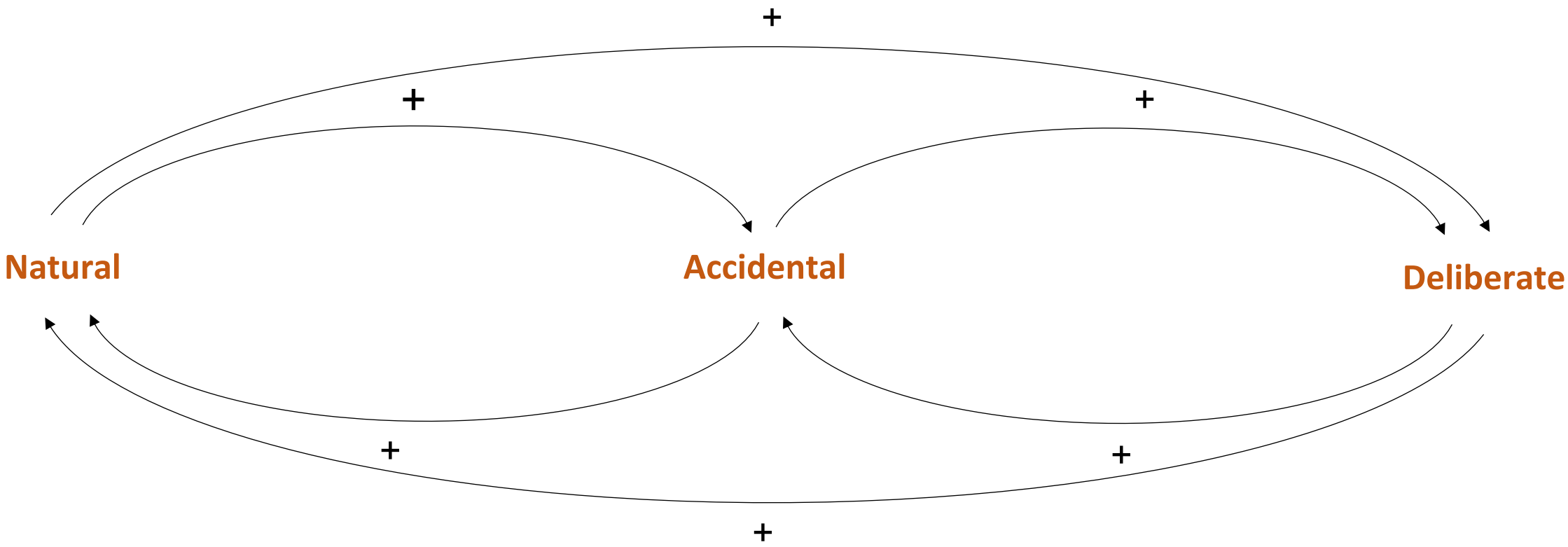
Simulation Exercises
A valuable tool for biopreparedness

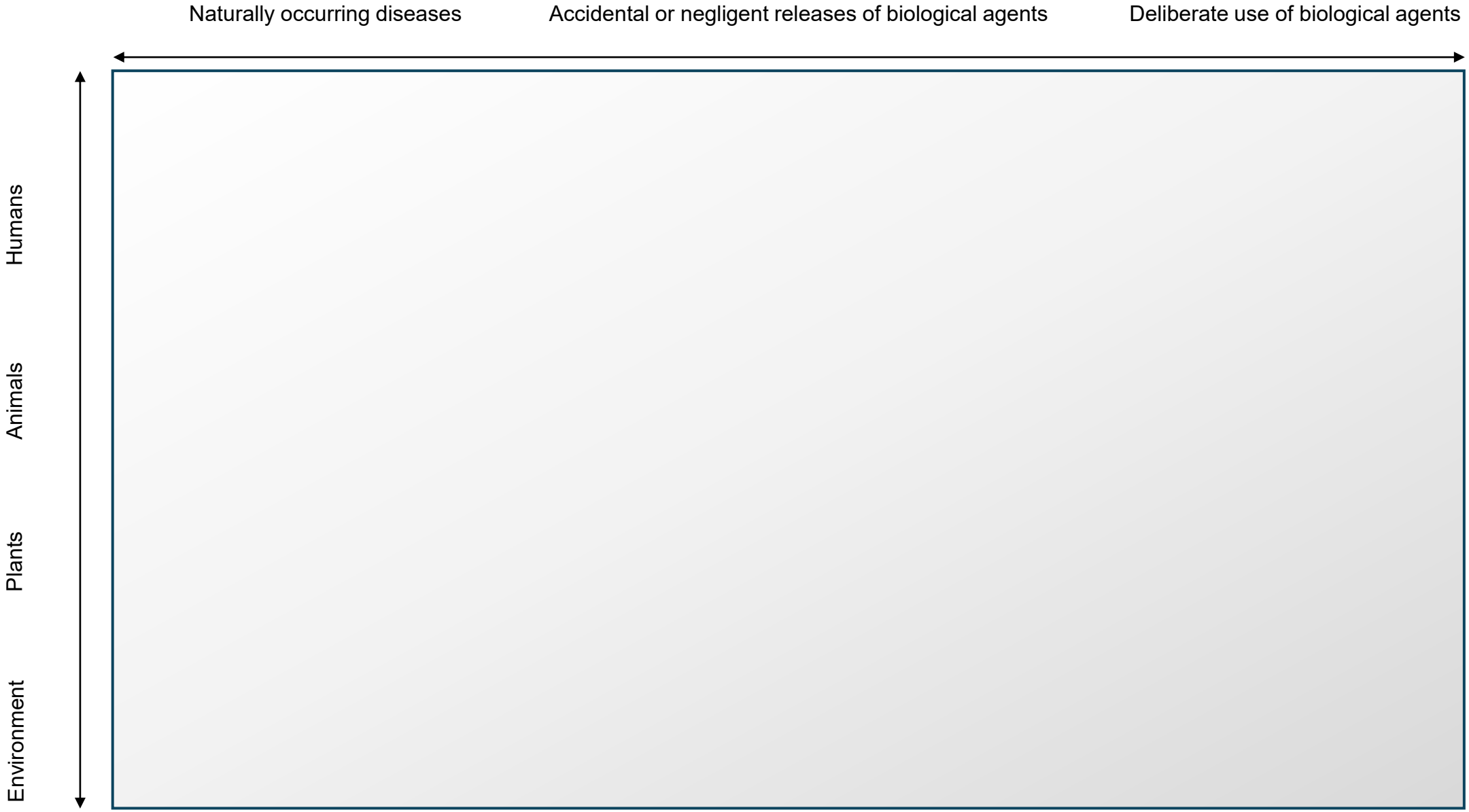
United Nations Office at Geneva, Palais des Nations, Room VIII
20 August 2026

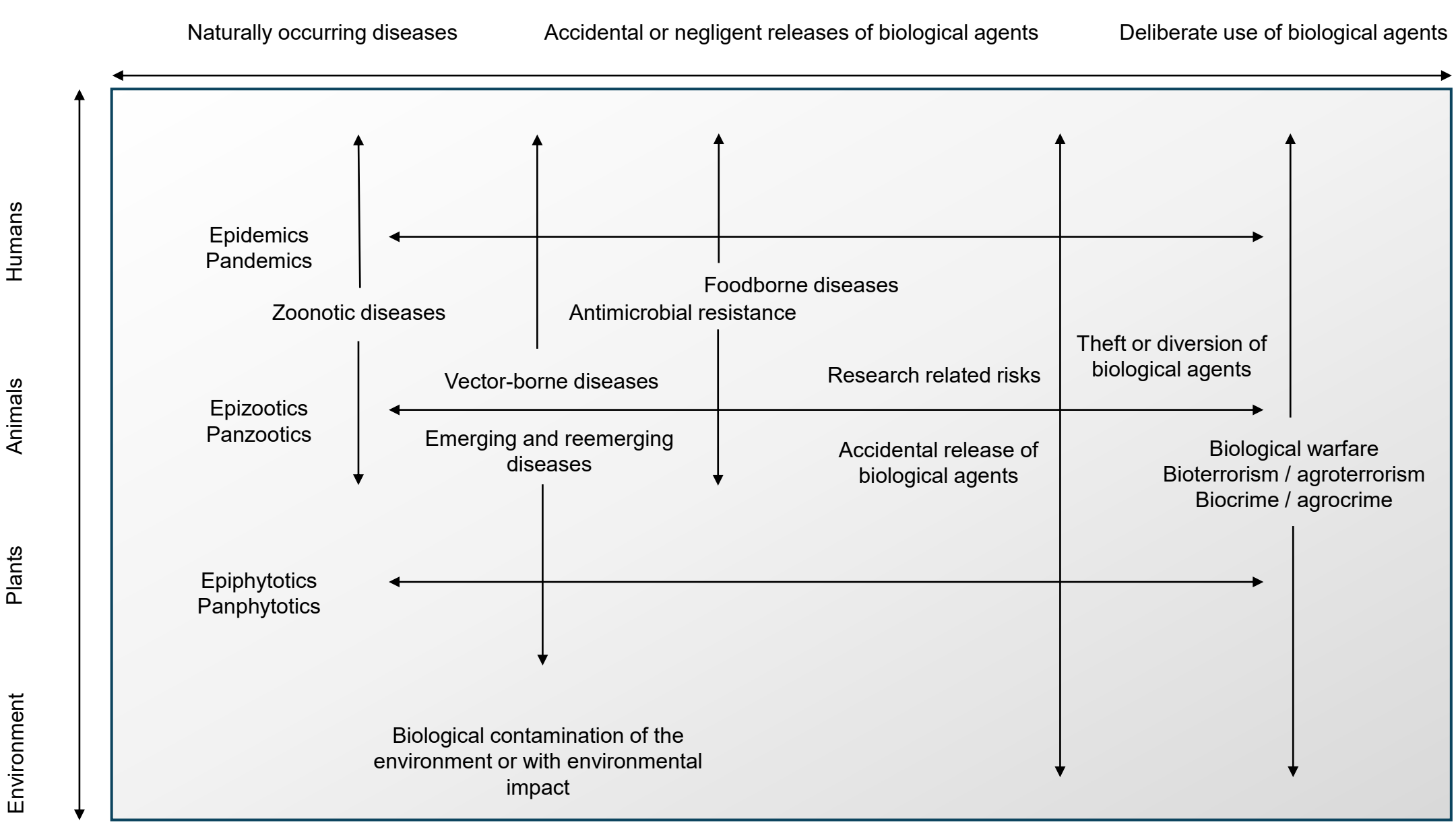
Júlio Gouveia-Carvalho

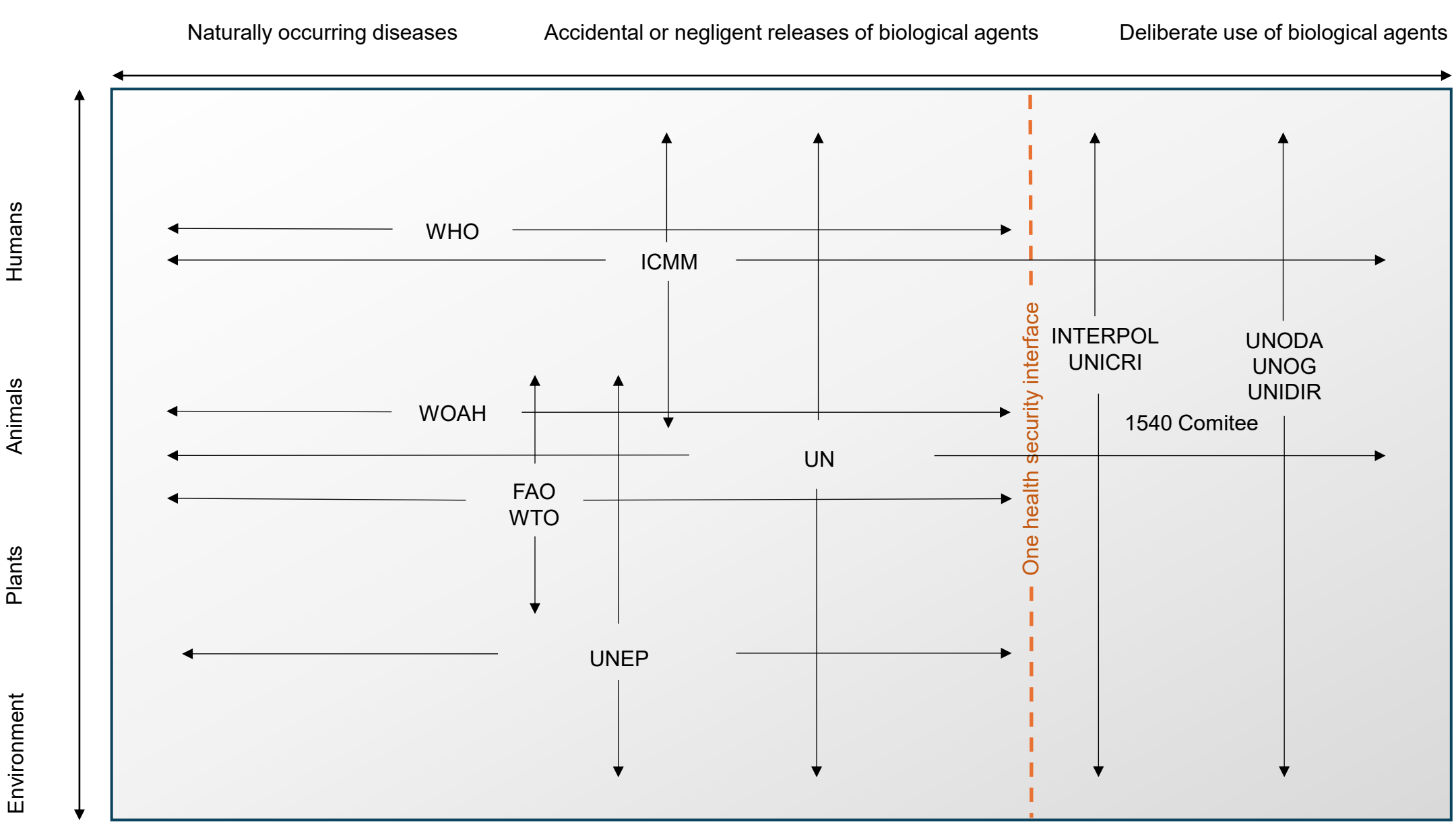
Biological and Chemical Defense Laboratory - Portugal

Biological risks and threats spectrum




Naturally occurring diseases
Accidental or negligent releases of biological agents
Deliberate use of biological agents
Humans
Animals
Plants
Environment


Naturally occurring diseases
Accidental or negligent releases of biological agents
Deliberate use of biological agents
Humans
Animals
Plants
Environment
Epidemics
Pandemics
Zoonotic diseases
Foodborne diseases
Antimicrobial resistance
Theft or diversion of biological agents
Vector-borne diseases
Research related risks
Epizootics
Panzootics
Emerging and reemerging diseases
Accidental release of biological agents
Biological warfare
Bioterrorism / agroterrorism
Biocrime / agrocrime
Epiphytotics
Panphytotics
Biological contamination of the environment or with environmental impact


Naturally occurring diseases
Accidental or negligent releases of biological agents
Deliberate use of biological agents
Humans
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WHO
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One health security interface
INTERPOL
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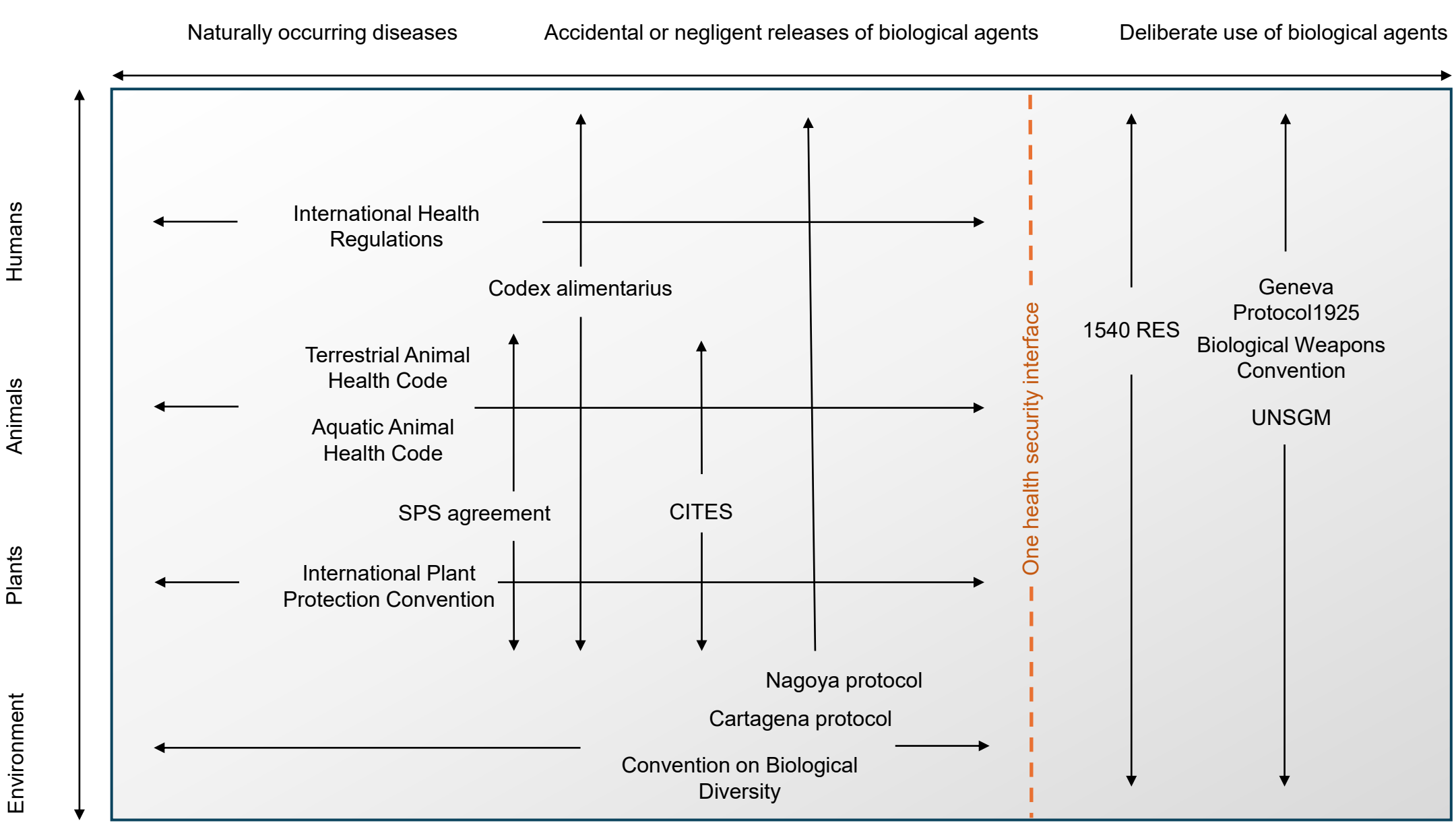
1540 Comitee


Naturally occurring diseases
Accidental or negligent releases of biological agents
Deliberate use of biological agents
Humans
Animals
Plants
Environment
International Health Regulations
Codex alimentarius
Terrestrial Animal Health Code
Aquatic Animal Health Code
SPS agreement
CITES
International Plant Protection Convention
Nagoya protocol
Cartagena protocol
Convention on Biological Diversity
One health security interface
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Geneva Protocol1925
Biological Weapons Convention
UNSGM








DIREX
DIREX







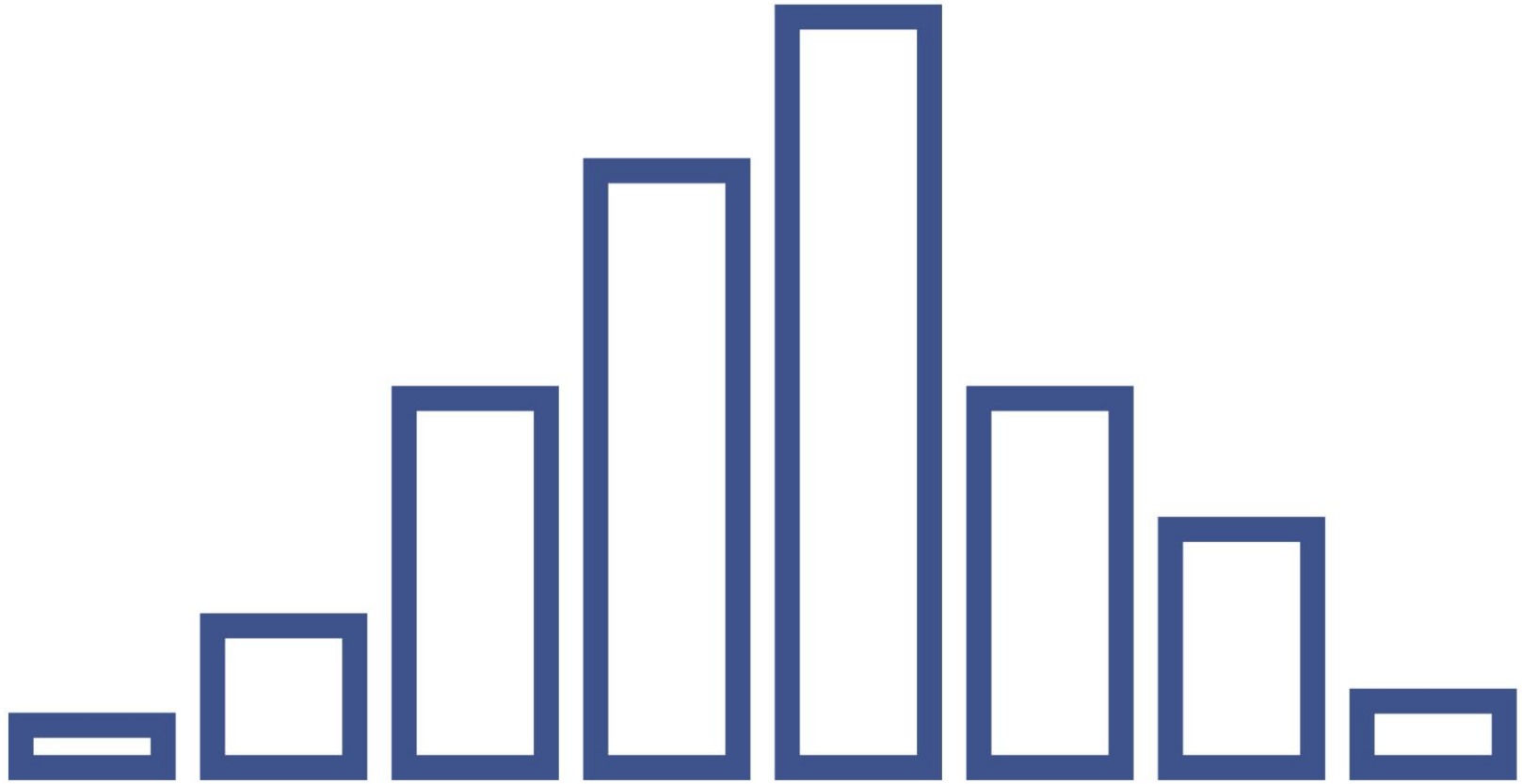

uvex

FELINO exercise

Angola 2011







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REPÚBLICA PORTUGUESA
SAÚDE
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SERVIÇO NACIONAL DE SAÚDE
DGS
desde 1899
Direção-Geral da Saúde
ngthening emergency
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ENERAL OF HEALTH - DGS
OBER 2018


Mortalidade em tempo real
152
Óbitos totais - hoje
34
5
Óbitos < 1 ano este mês
56% / 44%
Óbitos ♂ / ♀ - hoje
Óbitos por 100.000 habitantes
Mortalidade hoje
Vigilância diária
Previsões de mortalidade
Mapas
Quadros
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
Jan-2018


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AROUND THE WORLD

SUCCESS STORIES

Simulation exercises: a valuable tool in biopreparedness

Highlights from the CELULEX exercises in Portugal

KEYWORDS

#army, #biological threat reduction, #emergency preparedness, #One Health, #Portugal, #simulation exercise.

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In Portugal, biopreparedness field-training exercises form part of a series of chemical, biological, radiological and nuclear (CBRN) simulation exercises. These 'CELULEX' exercises are civil support exercises, organised and conducted on an annual basis by the Portuguese Army. They

involve several institutions in a multisectoral context, and adopt an 'all-hazards' approach and a One Health perspective as main pillars for the construction of scenarios.

The value of simulation exercises in biopreparedness

Regular simulation exercises are essential tools in building and sustaining an effective national and international capability to contain the consequences of natural or deliberate disease outbreaks, restore confidence and make a rapid recovery, with minimal loss of life and disruption to daily life and the economic well-being of a country. They enable countries to validate plans and systems thoroughly, test coordination among national and international institutions, train frontline responders and highlight vulnerabilities [1].



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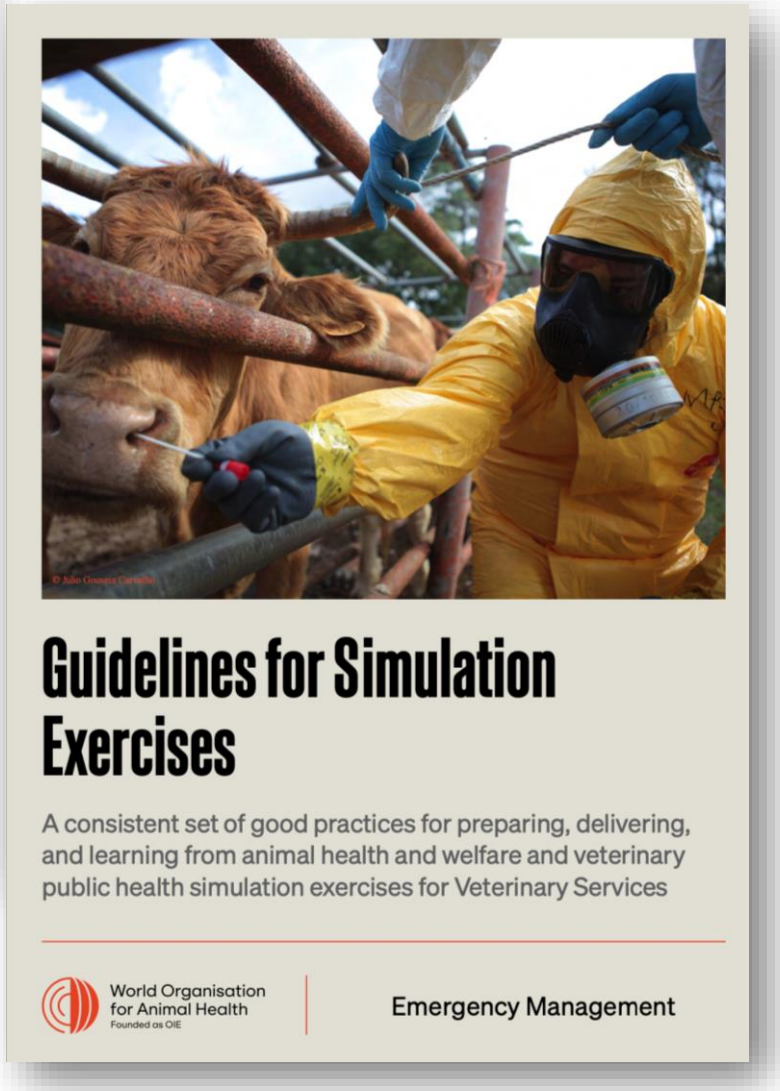
With a view to drawing on realistic scenarios and further enhancing multisectoral coordination, relevant stakeholders in biopreparedness and response take part in the annual CELULEX exercises, especially aimed at the health–security and human–animal interfaces.

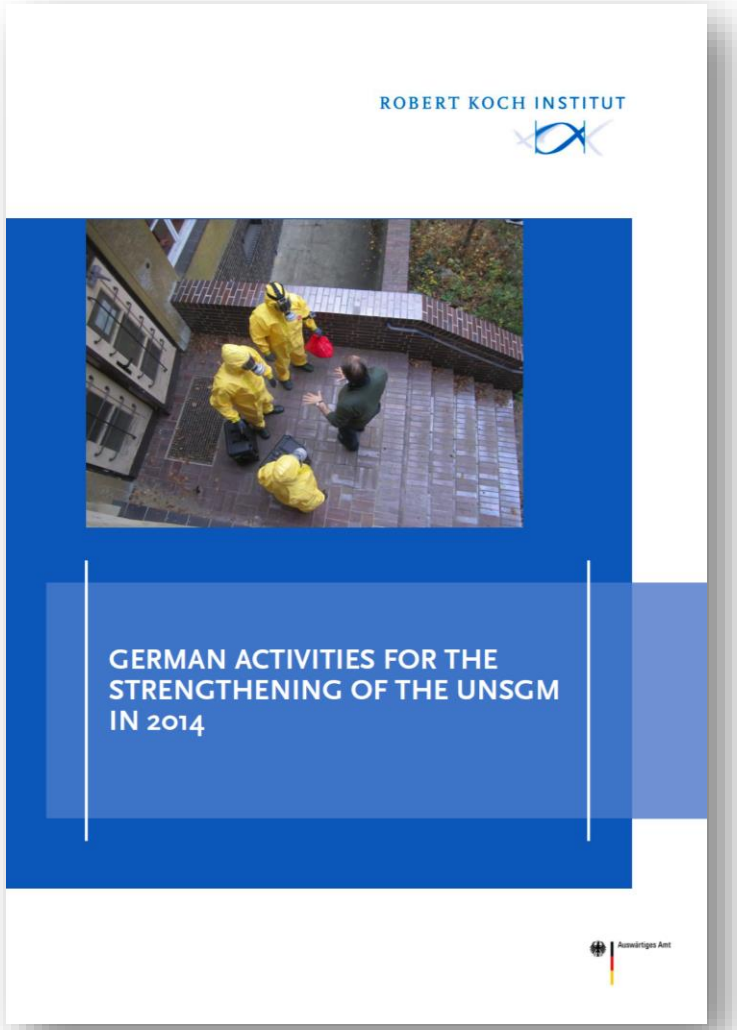
The national institutions involved in these exercises include the following, the: Directorate General for Health, Directorate General of Food and Veterinary Affairs, National Institute of Health, National Institute for Agrarian and Veterinary Research, National Authority for Emergency and Civil Protection, Navy, Army, Air Force, National Republican Guard, Public Security Police, Lisbon Firefighters Regiment, Instituto Superior Técnico of the University of Lisbon, Portuguese Environmental Agency, National Institute of Medical Emergency, National Institute of Legal Medicine and Forensic Sciences, Portuguese Criminal Police, Public Prosecution Service and hospitals from the National Health Service [1, 2, 3, 4].

> Outreach and dialogue with the international community constitute an important component of the CELULEX exercises

International experts from the following institutions were invited to take part in the exercises and participate as training audience and observers: the World Organisation for Animal Health (OIE); World Health Organization (WHO); Food and Agriculture Organization of the United Nations (FAO); United Nations Office for Disarmament


1540 COMPASS
WINTER 2015 — ISSUE 8
Photo courtesy of INTERPOL
CBRN Security Culture Discussion at the Global Partnership: Moving Forward — p. 12
INTERPOL's CBRNE Capacity and UNSCR 1540 — p. 18


Guidelines for Simulation Exercises
A consistent set of good practices for preparing, delivering, and learning from animal health and welfare and veterinary public health simulation exercises for Veterinary Services
World Organisation for Animal Health
Founded as OIE
Emergency Management


ROBERT KOCH INSTITUT
GERMAN ACTIVITIES FOR THE STRENGTHENING OF THE UNSGM IN 2014
Auswärtiges Amt

Secretary-General's Mechanism for Investigation of Alleged Use of Chemical and Biological Weapons (UNSGM)



(1) UNHQ (Photo credit: UN Photo); (2) Field exercise in Berlin for qualified experts, 2014 (Photo credit: Robert Koch Institute)

Mandate

With resolution A/42/37 C (1987) the UN General Assembly established, and the Security Council reaffirmed with resolution 620 (1988), the Secretary-General's Mechanism (UNSGM) to carry out prompt investigations in response to allegations of the possible use of chemical and bacteriological (biological) and toxin weapons that may constitute a violation of the 1925 Geneva Protocol or other

Further Information

- Key Documents
- UNSGM Fact Sheet
- UNSGM Newsletter
- Training Activities and Lab EQAEs
- Partners
- Past investigations

Related Pages

- Weapons of Mass Destruction
- Biological Weapons
- Chemical Weapons
- Missiles
- UN Security Council Resolution 1540 (2004)
- Chemical and Biological Weapons Use Investigations (UNSGM)

UNODA

UNITED NATIONS OFFICE FOR DISARMAMENT AFFAIRS

Training Course on Decontamination Skills

Summary of the Course

From 21-24 May 2024, UNODA organized a skill training course in Lisbon on 'Decontamination Skills' in collaboration with the Government of Portugal, which was attended by a group of 19 qualified experts on the UNSGM roster from 15 Member States from all UN regions.

The course aimed to provide this group of qualified experts with a better understanding of decontamination practices in the context of a UNSGM investigation. Training elements included both theoretical lessons and exercises to practice the related skills, which were delivered by trainers from the Portuguese Army (Military Laboratory Unit for Biological and Chemical Defense – UMDLBQ).

The first day of the course focused on theory. UNODA began by reviewing with participants the parts of the UNSGM Guidelines and Procedures relevant to aspects of decontamination during an investigation. This was followed by instruction from the Portuguese trainers on relevant aspects of decontamination, including: contamination preventive measures, general decontamination principles and concepts, biological and chemical decontamination, decontamination of personnel, samples and equipment, set-up and waste management, as well as decontamination as part of mission planning. On the second day, participants were taken through a 'Decon Safari' in which they observed different practical aspects related to decontamination and were informed about recent developments in this field. The course concluded with exercises, ranging from an animal disease outbreak to sampling suspected chemical weapons, in which participants were asked to put into practice the elements from the theoretical lessons and observations from the previous days. In these exercises, participants were presented with four scenarios for which they were asked to put together decontamination plans and then practice those plans in the field.

Overall, this decontamination skills training course provided the participating experts with an improved understanding of the principles and guidelines related to decontamination in the UNSGM context. In addition to the collaboration extended by the partners in Portugal in developing and implementing this course, UNODA wishes to express its appreciation for the financial support for the workshop that was generously provided by the Government of Canada.











Feedback from Participants

"Program was a good mix of theory and practice."

"I expected to get a theoretical foundation in decontamination theory which would eventually be practiced in a group scenario. All my expectations were well and truly exceeded."

"Excellent practical exercises."

"All the practical scenarios were very well thought out. I especially liked how each of them had a twist on the decontamination aspect, meaning that the decontamination procedures had to be adapted to suit. Even the addition of a chemical scenario was a great (and appreciated) twist."

The key intended outcome of this training course was to increase nominated experts' familiarity with and understanding of decontamination practices in the context of a UNSGM investigation. During the basic training courses, experts receive an introduction to basic principles of decontamination, but this 'Decontamination Skills' course provides much greater depth on many aspects within this topic, as well as opportunities for experts to conduct practical exercises to test their understanding and work together as a team on relevant aspects. All participants who shared feedback after the course noted that their level of knowledge about decontamination within the context of a UNSGM investigation increased, with the average rating increasing from 6.0 (out of 10) before the course to 8.8 after the course.

Average (self-reported) level of knowledge about decontamination in the UNSGM context

before the course 6.0 ★★★★★★☆☆☆☆

and **after the course** 8.8 ★★★★★★★★★☆

Portuguese-speaking countries advance chemical emergency preparedness

OPCW training builds stronger chemical emergency response capabilities to better protect populations

28 MAY 2024


USER RESPONSIBLE FOR CHEMICAL COMPATIBILITY
CAUTION
FOLD SUPPORTS TOWARDS CENTER WHEN FOLDING FOR STORAGE


Kappler
300
ZYTRON

OPCW workshop in Lisbon enhances national implementation of the Chemical Weapons Convention

The workshop strengthens collaboration among Portuguese-speaking Member States in advancing the implementation of the Convention.

27 MARCH 2024






PELI
1560 CASE







BWC/MSP/2017/WP.11

1 December 2017

English only

Meeting of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction

2017 Meeting
Geneva, 4-8 December 2017
Item 6 of the provisional agenda
Issues of substance and process for the period before the next Review Conference, with a view to reaching consensus on an intersessional process

Biopreparedness field training exercises: national and international capacity-building

Submitted by Portugal

I. Introduction

1. States Parties are responsible for providing assistance and coordinating with relevant organizations in cases of alleged use of biological or toxin weapons.

2. Developing sound international capabilities to respond, investigate and mitigate disease outbreaks, including those due to alleged use of biological and toxin weapons, is fundamental to provide effective assistance. A key part of this is national preparedness, as States Parties have collectively acknowledged[1] and individually reiterated.[2]

3. Successful mitigation of biological incidents requires multi-agency operational responses with coordination across government departments and agencies: police and law enforcement, fire and rescue services, public health and veterinary sectors, armed forces, civil protection, environmental agencies, meteorology, transport and communications.

4. Most of the national capabilities[3] necessary to respond to deliberate disease outbreaks are the same as those required to respond to natural infectious disease outbreaks and other public health and animal health emergencies. But there may also be important differences. Responses to deliberate outbreaks may take place in hostile environments, imposing particular requirements to the experts involved, the operational procedures applied and the fielded equipment.[4] Such responses will also likely take place alongside a

[1] In 2004 (BWC/MSP/2004/3, paragraph 21), 2006 (BWC.CONF.VI/6, Final Declaration, Article VII, paragraph 35), 2010 (BWC/MSP/2010/6, paragraph 22), and 2011 (BWC/CONF.VII/7, Final Declaration, Article VII, paragraph 39)
[2] For example: South Africa in BWC/MSP/2014/MX/WP.9, United Kingdom in BWC/MSP/2014/MX/WP.5 and BWC/MSP/2014/WP.1, USA in BWC/MSP/2014/WP.1, and Cuba in BWC/MSP/2015/MX/WP.22
[3] BWC/MSP/2014/WP.1 submitted by the USA
[4] BWC/MSP/2014/WP.9 submitted by Germany

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Please recycle

BWC/MSP/2019/WP.4

2 December 2019

English only

Meeting of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction

2019 Meeting
Geneva, 3-6 December 2019
Item 6 of the provisional agenda
Consideration of the factual reports of the Meetings of Experts reflecting their deliberations, including possible outcomes

Investigating alleged use of biological agents against agriculture, livestock and the natural environment: A practical approach

Submitted by Portugal

I. Introduction

1. The 2019 Meeting of Experts on Assistance, Response and Preparedness considered several topics for discussion, including *inter alia*, the following items:

(a) Procedures, including the establishment and use of the assistance database, to improve the prompt and efficient response without preconditions to a request of assistance by a State Party under Article VII, and coordination and cooperation among States Parties and with relevant international and regional organisations such as World Health Organization (WHO), World Organisation for Animal Health (OIE), Food and Agriculture Organization (FAO), as appropriate (agenda item 6);

(b) Exploration of approaches by which States Parties, individually or collectively, might contribute to the strengthening of international response capabilities for infectious disease outbreaks, whether natural or deliberate in origin (agenda item 8);

(c) Exploration of means to prepare for, respond to and render assistance in case of the possible hostile use of biological agents and toxins against agriculture, livestock as well as the natural environment (agenda item 9).

2. Work under the abovementioned agenda items included statements, working papers, technical presentations and side event discussions, in which consideration of strengthening international response capabilities for infectious disease outbreaks (natural or deliberate in origin), coordination with relevant International Organisations and the topic of deliberate release of biological agents against animals, plants and the environment were brought into the discussion.

3. With a view to develop concrete actions on these topics, Portugal recently organised a biopreparedness field training exercise to support the development of sound international assistance capabilities to respond, investigate and mitigate disease outbreaks, including those due to alleged use of biological and toxin weapons.

4. Portugal has previously reported on national biopreparedness field training exercises to share experiences with other States Parties, highlight concrete actions to strengthen the

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