

# PANORAMA

Thematic portfolio



Strengthening preparedness  
and resilience to emergencies



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# PERSPECTIVES

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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 Affairs (UNODA); Instituto de Defesa Química, Biológica, Radiológica e Nuclear (Brazil); Institut für Mikrobiologie der Bundeswehr (Germany); Instituto Gulbenkian de Ciência (Portugal); King's College London (United Kingdom); Ministério da Agricultura, Pecuária e Abastecimento (Brazil); Regimiento de Defensa NBQ (Spain); Robert Koch Institute (Germany); Scuola Interforze per la Difesa NBC (Italy); Statens Serum Institut (Denmark); and NATO's Joint Chemical, Biological, Radiological and Nuclear Defence Center of Excellence. As part of their visit, the international observers were also given tours of the BSL3 laboratories of the National Institute of Health, the National Institute for Agricultural and Veterinary Research, and the Biodefense Laboratory of the Portuguese Army [1, 2].

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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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