Chemical Biological Radiological Nuclear Risk Mitigation - Centres of Excellence

CBRN National Action Plans

UNICRI

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Jointly implemented by the EC JRC and UNICRI
CBRN National Action Plans:


1. What CBRN National Action Plans are

1. How CBRN National Action Plans are produced

1. How CBRN National Action Plans can enhance CBRN risk mitigation and coordination
1. Context
United Nations Interregional Crime and Justice Research Institute (UNICRI)

United Nations entity mandated to assist intergovernmental, governmental and non-governmental organizations in formulating and implementing improved policies in the field of crime prevention and criminal justice.
An initiative funded by the EU and jointly implemented by UNICRI

CoE Regional Secretariats ➔ 43 partner countries
National CBRN Team is responsible for preparation and implementation of the National Action Plan

Liaise with the CoE and seek help from outside partners

National Focal Point plays a central role in the process

Also consider:
• Ministry of Scientific Research
• Ministry of Environment
• Ministry of Agriculture
• Ministry of Justice
• Ministry of Economy/Trade
• Ministry of Infrastructures
• Universities, laboratories
• Civil society stakeholders
• Others
Contact points for the CBRN CoE Regional Secretariat and represent the Initiative in their respective countries. They are the initiators of the CBRN National Team in their countries.
2. What CBRN National Action Plans are
CBRN National Action Plans are:

• Voluntary
• National authorities have ownership (including data)
• Updated periodically
• Easy to monitor implementation
• Cover strategic and technical aspects
• Capacity building is a by-product
CBRN National Action Plans aim to:

• Establish a consolidated national strategy for strengthening a country’s capacity to counteract CBRN risks, whether natural, unintended or deliberate in origin

• Enable capacity-building projects tailored to a country’s needs, taking into consideration national priorities and ongoing activities with regional and international partners

• Improve international coordination and harmonization of existing instruments dedicated to CBRN risk mitigation
CONTENTS

Introduction

I. Current national institutional structure

II. Fulfillment of relevant international instruments

III. Assessment of CBRN threats and risks
   a. Chemical threats/risks
   b. Biological threats/risks
   c. Radiological and Nuclear threats/risks
   d. General or cross-cutting CBRN threats/risks

IV. Current capacities to mitigate CBRN threats and risks
   a. Prevention
   b. Detection
   c. Preparedness and response
   d. General capacities, including CBRN governance across the C-B-R-N fields

V. Proposed objectives to reinforce national CBRN capacity
   a. Prevention
   b. Detection
   c. Preparedness and response
   d. General actions, including CBRN governance across the C-B-R-N fields

VI. Practical information on proposed objectives/actions
3. How CBRN National Action Plans are produced
Three phase process

Phase 1
Identification of key CBRN areas of risk

Phase 2
Gap analysis and drafting National CBRN Action Plan

Phase 3
Review and finalize of National CBRN Action Plan
Risk scenarios covering a range of CBRN contingencies:

- **Natural CBRN Hazards**
  *Disease, earthquakes, floods impacting CBRN material*

- **Accidents**
  *Industrial, laboratory accidents, other*

- **Criminal CBRN Hazards**
  *Terrorism, sabotage, illicit CBRN trafficking*

- **Theft of CBRN material and technology**
- **Attack/sabotage of CBRN facilities**
- **CBRN trafficking**
- **Attack on public/individuals**
- **Improper disposal**
- **Accidental CBRN release**
- **Contamination**
- **Natural disaster release of CBRN**
- **Disease outbreak**
Example 1: Natural outbreak

SARS Epidemic

Origin: Southern China

Duration: 2002-2003

Affected regions: Multiple countries

Agent(s): SARS Coronavirus

Impact: 8,273 cases, 775 deaths, quarantine and travel restrictions

Source: WHO
Example 2: Accidental release

### Laboratory-acquired infections

**Event description:**
Accidents in the laboratory infecting researchers or other personnel

**Agent(s):**
No less than 120 different microorganisms

**Unknowns:**
Approximately 30% of cases have not be attributed to a specific cause

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### Cause of 3,497 Laboratory Infections (mostly acquired after 1930)

<table>
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<tr>
<th></th>
<th>No.</th>
<th>%</th>
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<tbody>
<tr>
<td>Aerosol</td>
<td>466</td>
<td>13.3</td>
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<tr>
<td>Accident</td>
<td>566</td>
<td>16.2</td>
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<tr>
<td>Cut, bite, scratch</td>
<td>192</td>
<td>5.5</td>
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<tr>
<td>Syringe and needle</td>
<td>168</td>
<td>4.8</td>
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<tr>
<td>Spill, spatter</td>
<td>122</td>
<td>3.5</td>
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<tr>
<td>Pipetting</td>
<td>84</td>
<td>2.4</td>
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<tr>
<td>Essentially unknown</td>
<td>2465</td>
<td>70.5</td>
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<tr>
<td>Worked with*</td>
<td>1151</td>
<td>32.9</td>
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<tr>
<td>Completely unknown</td>
<td>782</td>
<td>22.4</td>
</tr>
<tr>
<td>Animal/egg/arthropod</td>
<td>532</td>
<td>15.2</td>
</tr>
</tbody>
</table>

Example 3: Theft of biomaterials

Fraudulent acquisition of plague bacteria

Location: Columbus, Ohio, United States

Date: 1995

Event description: Pathogen ordered from culture collection

Agent(s): Yersinia pestis (plague bacteria)

Perpetrator: Larry Wayne Harris

Source: Public domain
Capacity Analysis
(Sample resource 1)

- **People**
  - (training, awareness raising, personnel evaluation)

- **Partnerships**
  - (international cooperation, outreach to non-government stakeholders)

- **Policy & Strategy**
  - (legal framework, national coordination, allocation of responsibilities, planning)

- **Leadership**
  - (political support, overall vision)

- **Resources**
  - (guidelines/codes of conduct, information/intelligence, threat/risk assessment, facilities/equipment, medical supplies)

- **Processes**
  - (standardized practices, protocols/operations review)
# Capacity Analysis (Sample resource 2)

## Prevention!
- National legislation/regulations! covering the possession, storage, and transfer of CBRN materials!
- List of CBRN facilities, including their locations!
- Registry/inventory of dangerous CBRN materials!
- Safety and security measures for CBRN materials and high-risk facilities!
- CBRN facilities designed to suit safety and security standards to protect against theft, accidental incidents, and those caused by natural disasters!
- Safety and security measures for the transportation of CBRN materials!
- Safety and security measures for the disposal of CBRN waste!
- Threat identification and risk assessments carried out for security arrangements at high-risk industrial installations!
- Hazard identification and risk assessments for safety purposes carried out at high-risk industrial installations!
- National strategy for disaster risk reduction!
- Safety and security enhancements based on regular risk assessments!
- Screening for reliability checks on personnel!
- Surveillance systems and security guards at high-risk CBRN installations!

## Detection!
- National CBRN detection strategy!
- Detection equipment/procedures for CBRN materials!
- National requirements for detection equipment/methods used for different categories of CBRN materials!
- Expertise in CBRN detection, analysis, and diagnostic strategies!
- CBRN detection training, including sampling, procedures, laboratory investigations, and diagnostics!
- Specialized laboratories for the analysis and/or identification of CBRN materials!
- Food, water, and pharmaceutical safety standards/guidelines for risk management!
- Food, water, and pharmaceutical safety standards/guidelines for risk management!
- Designated agencies responsible for monitoring the potential release of CBRN materials, including environmental monitoring and epidemiological surveillance!

## Preparedness & Response!
- National CBRN emergency response plan!
- Ministerial/departmental CBRN emergency response plans!
- Local/provincial CBRN emergency response plans!
- CBRN site emergency response plans!
- Business continuity and resilience plans!
- Strategy for the protection of critical infrastructure!
- Dedicated CBRN emergency response/crisis management teams!
- Emergency response exercises!
- National emergency response centre(s)!
- Dedicated communication channels between national and local authorities!
- Dedicated communication channels between emergency response centre(s) and emergency response teams!
- Clearly defined responsibilities and standards for operating procedures for first responders!
- Training manuals for on-site and off-site CBRN incidents!
- Communication strategies tailored to specific CBRN incidents, including public health!

## Crosscutting Activities!
- National CBRN policy/strategy, including regular review!
- National leaders have an overview of CBRN risk mitigation!
- National CBRN risk assessments!
- National program of promoting CBRN safety and security culture!
- CBRN awareness raising activities targeting government, leadership, industry, and the public!
- National Interagency collaboration agreements in written form!
- National agencies/organisations, all critical processes for CBRN risk mitigation!
- Collective and maintain information on CBRN incidents [e.g., interagency databases]!
- National directory or partner agency CBRN contact points!
- Cooperation mechanisms with industry, academia, civil society, and the media!
- Participate in regional and/or international treaties or partnerships dedicated to the control/prohibition of CBRN materials!
- Directory of international and national CBRN Centres of Excellence.
### Capacity Analysis

**Title:** Sample resource 3

**Capabilities questions:** Natural outbreak of infectious disease

<table>
<thead>
<tr>
<th>Level 1 questions</th>
<th>Level 2 questions</th>
<th>Level 3 questions</th>
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</thead>
<tbody>
<tr>
<td>Does your country have national legislation regulating the health sector, including infectious diseases?</td>
<td>Does law require reporting of outbreaks of infectious diseases?</td>
<td>Questions to licensing: see below</td>
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<td>Are diseases named in the law?</td>
<td>Regulations for quarantine</td>
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<td>Does law foresee restriction of personal movement for certain infectious diseases (quarantine)?</td>
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<td>Does law regulate access to, handling of, import/export of pathogens? Is a license required?</td>
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<td>Does your country have vaccination programs?</td>
<td>Which vaccinations are included in the program?</td>
<td>Improvement of acceptance of vaccination programs</td>
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<td></td>
<td>Are vaccinations mandatory or voluntary?</td>
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<td>Does your country have an infectious disease surveillance system based on reporting of disease outbreaks?</td>
<td>Is the national reporting system on infectious diseases based on diagnosis or laboratory confirmation?</td>
<td>Is sufficient capacity for field epidemiological studies available?</td>
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<td>Does the system meet core requirements for surveillance according to the WHO International Health Regulations (2005)?</td>
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<td>Are incoming reports assessed at the national level immediately or at least in adequate time (48 hrs.)?</td>
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<td>Is a national IHR Focal Point established for reporting relevant outbreaks to the WHO?</td>
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<td>Is a national focal point established for regional information on relevant outbreaks?</td>
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<td>Is cooperation/coordination with veterinary agencies foreseen in case of outbreaks of zoonotic diseases?</td>
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<td>Does your country have occupational health legislation for handling biological materials?</td>
<td>Does this legislation require licensing of work with pathogens?</td>
<td>Does a license request professional knowledge?</td>
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<td>Does this legislation classify pathogens according to risk groups?</td>
<td>Is licensing of work linked with security background checks?</td>
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<td>Does this legislation require implementation of safety procedures/hardware for work according to</td>
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</table>
## Table of priority actions

<table>
<thead>
<tr>
<th>Strategic objectives</th>
<th>Existing resources/capabilities</th>
<th>Needed resources/capabilities</th>
<th>Specific activities/actions to fulfill objectives</th>
<th>Lead agency and other stakeholders involved</th>
<th>Budget estimate</th>
<th>Time frame (expected duration, start/end date)</th>
<th>Priority level</th>
<th>Notes (e.g., relevant CBRN scenario from workshop, C, B, R and/or N, etc.)</th>
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<td><strong>Detection</strong></td>
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<td><strong>Preparedness and response</strong></td>
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<td><strong>General actions, including CBRN governance</strong></td>
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4. How CBRN National Action Plans can enhance CBRN risk mitigation activities and coordination
Coordination with International Organizations and Partners

CBRN National Action Plans will (1) Enable countries to tailor capacity-building efforts to their most urgent needs and (2) Serve as a vehicle for integrating diverse efforts to enhance CBRN capacities:

- Integrated Nuclear Security Support Plan (INSSP) of IAEA
- National Action Plan to fulfill UNSCR 1540 (in coordination with UNSCR 1540 Committee, UNODA and OSCE)
- WHO Protocol for Assessing National Surveillance and Response Capacities for the International Health Regulations
- OPCW and INTERPOL activities
- Ongoing bilateral and multilateral projects, e.g. international donors and other countries in the region
UNICRI
United Nations Interregional Crime and Justice Research Institute

Thank You!

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