

**CHEMSS2016**

**Ukrainian Chemical Security Forum**

**The outcomes of  
the Comprehensive Review of  
Chemical Safety and Security in Ukraine**

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# **Comprehensive Review of Chemical Safety and Security**

**The aim:** To clarify the current state of chemical safety and security, identify main areas of risks, evaluate national capabilities and define possible ways of addressing existing and potential challenges

# **Comprehensive Review of Chemical Safety and Security**

- **Team:** Group of experts from Industry, Academia, R&D organizations and civil sector
- **Guidance and support:** OSCE CPC, OSCE Project Co-ordinator in Ukraine, ICCSS
- **National contribution:** Ukrainian Chemists Union provided technical assistance and facilitation of expert workshops

# **Comprehensive Review Process**

- **Preparatory stage;**
- **1st phase (collection and processing of information);**
- **2nd phase (research and analysis);**
- **3rd phase (interim report development);**
- **4th phase (final report and recommendations development)**

# **Comprehensive Review of Chemical Safety and Security**

## **Sources of information:**

- National Reports, statistics and publicly available data
- Governmental agencies and other stakeholders upon request

## **Caveats:**

- Survey focused only on the selected aspects of chemical safety and security due to short time allocated for the research
- It is the first attempt to assess the scale and substance of the problem, therefore the report should be regarded as a starting point for more detailed analyses under subsequent projects

# Main areas surveyed (1)

- ❖ General chemical safety and security policy;
- ❖ Meeting international commitments, international co-operation and technical assistance;
- ❖ National System of Preparedness, Response to Chemical Threats, and Emergency Response;
- ❖ The consequences of damage to critical infrastructure and pollution with hazardous chemicals in areas affected by hostilities and sabotage;
- ❖ Manufacturing, storage and use of chemicals by the national industry sectors;
- ❖ Circulation of narcotics, psychotropic substances, and precursors;
- ❖ Transportation of hazardous chemicals;

## **Main areas surveyed (2)**

- ❖ Protection of environment from effects of hazardous chemicals;
- ❖ Border and customs control of the movement of hazardous chemicals;
- ❖ Infrastructure and technical capabilities for analysis of hazardous chemicals;
- ❖ Chemical safety and security at educational and R&D institutions;
- ❖ Public awareness, quality of training and education of the target audience, and experts;
- ❖ Status and accessibility of information on chemical substances.

# Algorithm

- 1) Assessment of current state and risk analysis
- 2) Evaluation of efficiency of existing system and national capabilities; compliance with modern requirements and best international practices
- 3) Analysis of national regulations in comparison with international (European) regulations
- 4) Conclusions and practical recommendations

# Annexes

- I. Glossary, special terms and definitions
- II. List of National Reports and Papers addressing various aspects of chemical safety and security
- III. List of key Governmental organizations responsible for defining and implementing State policy in chemical safety and security domain

# Main findings (1)

## General chemical safety and security policy:

- Chemical safety and security as a component of CBRNe Security and National Security requires urgent attention of relevant State Authorities;
- Interagency co-ordination enhancing is vital;
- Key policy instruments are necessary to develop:
  - **National Concept of Chemical Safety and Security**
  - **State Strategy** to address chemical threats
  - **State Program** for its implementation

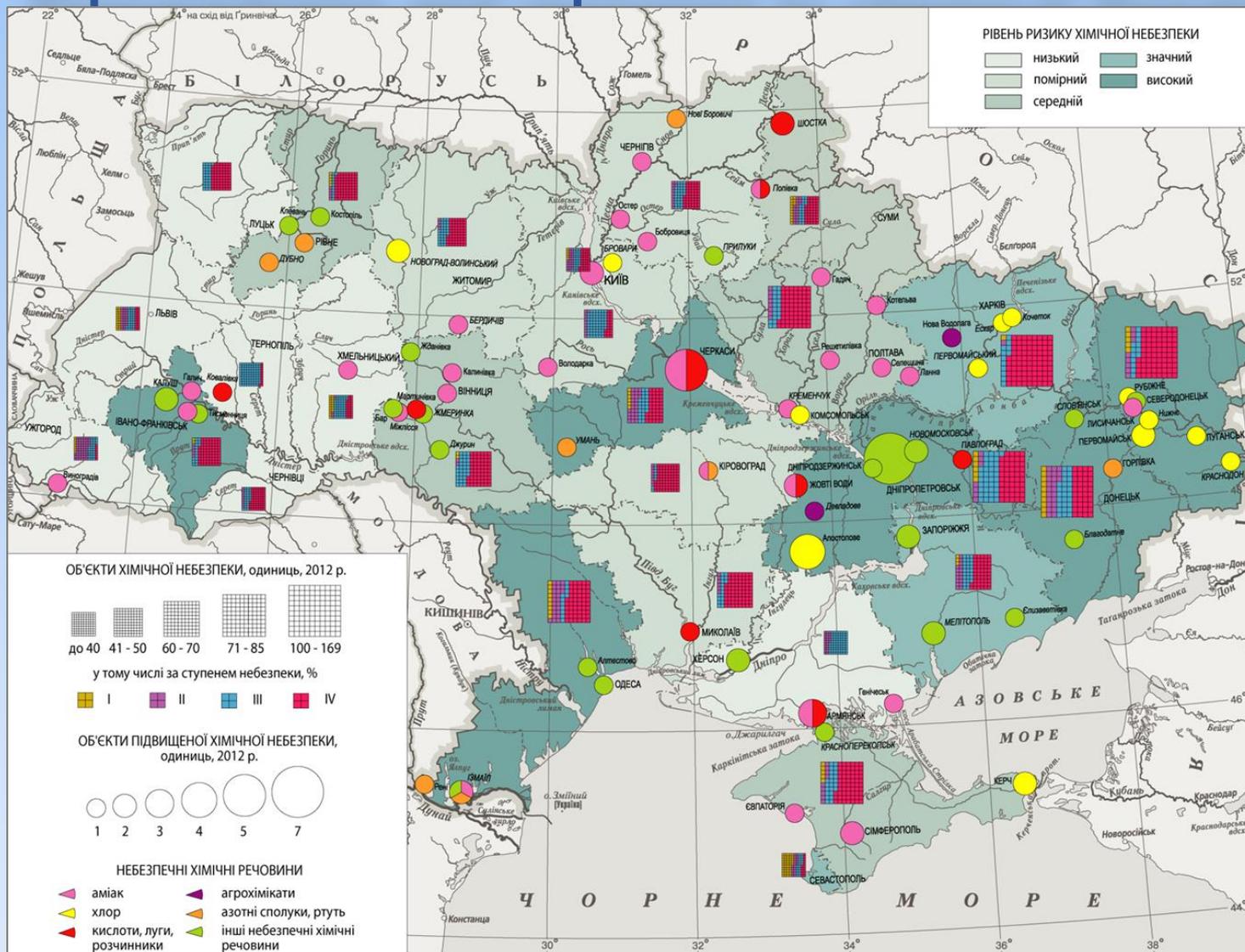
## **Main findings (2)**

### **International commitments and cooperation:**

- Additional efforts for implementation of UNSCR 1540;
- Overcome the drawbacks in "Chemical" Conventions implementation;
- Intensify activities on the implementation of SAICM;
- Active participation in the EU initiative on CBRN CoE;
- Enhancing of coordination and efficiency of International technical assistance.

# Main findings (3)

## Preparedness and response to chemical threats:



## Main findings (4)

### Preparedness and response to chemical threats

- Ukraine has 931 high risk chemical facilities which store or use 308.07 thous. tons of hazardous chemical substances, (including 4.08 thous. tons of chlorine, 202.66 thous. tons of ammonia, and 101.33 thous. tons of other HCS;
- Distribution by the level of chemical hazard:
  - Level I – 65,
  - Level II – 128,
  - Level III – 178, and
  - Level IV – 567 facilities.

• Source: the State Emergency Service National Report 2014

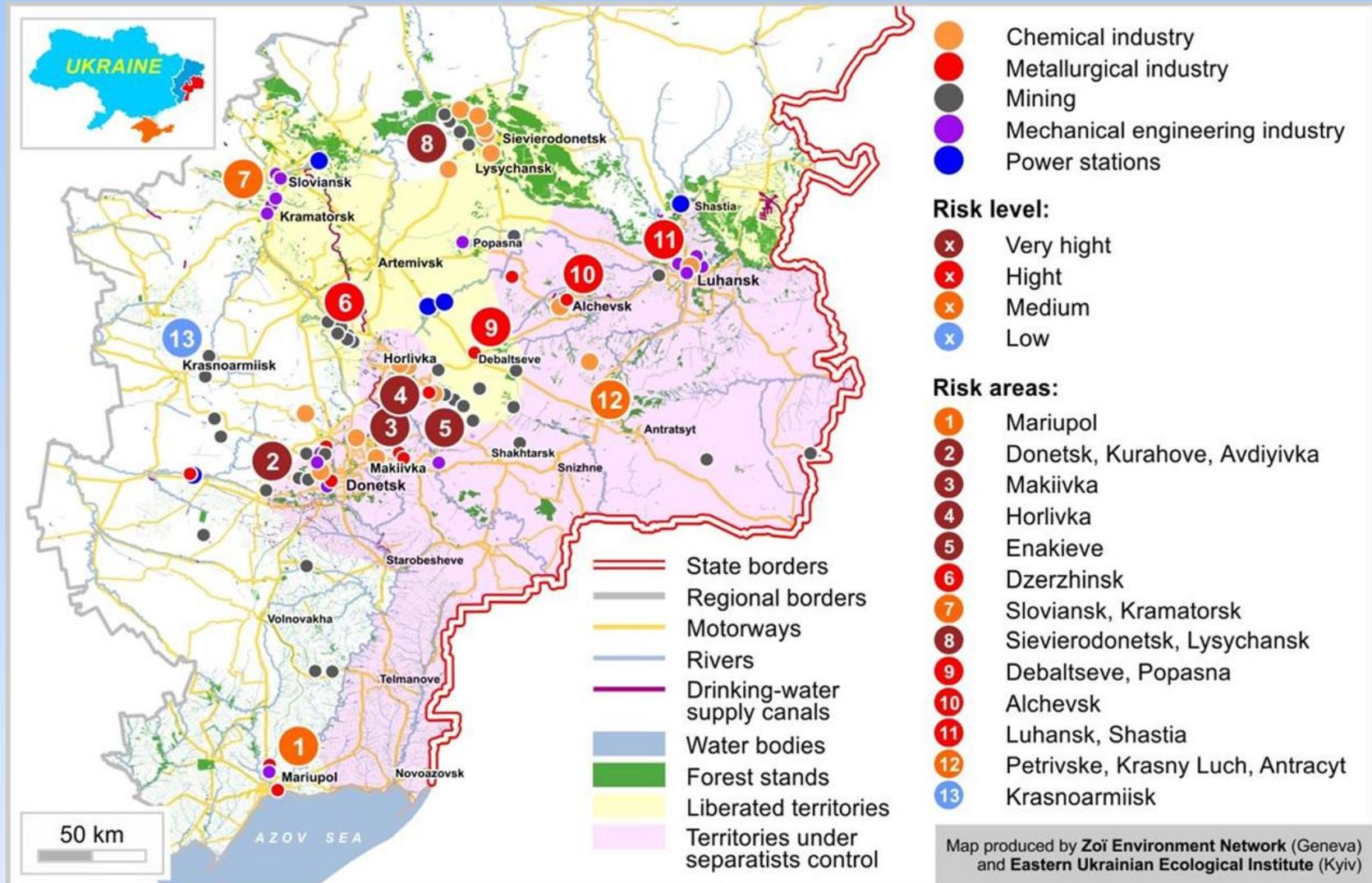
## **Main findings (5)**

### **Preparedness and response to chemical threats:**

- The Unified State Civil Protection System requires a major revision and improvement;
- There is a vital need to harmonize the legal framework with the requirements of the European SEVESO-III Directive;
- Necessity to create preconditions for Integration to the EU Civil Protection Mechanism (training and equipment);
- Need to install AEDWS at all chemical facilities.

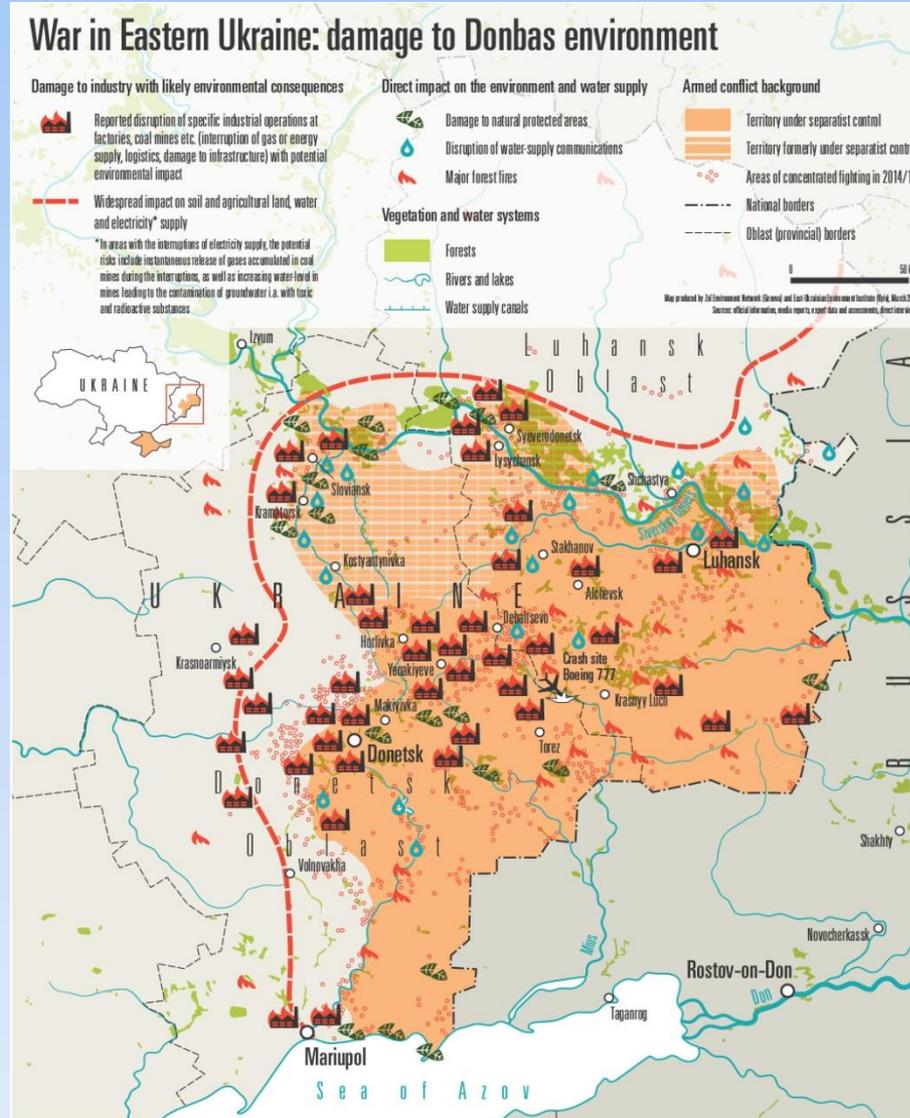
# Main findings (6)

Address the problems in the areas affected by hostilities



# Main findings (7)

## Address the problems in the areas affected by hostilities



## **Main findings (8)**

### **Address the problems in the areas affected by hostilities**

- Full technical assessment of the current chemical risks and threats needs to be conducted with further regular monitoring of chemical contamination of the territories;
- There is a need to upgrade the capabilities of all CBRN units of the security authorities in the region;
- Comprehensive training framework should be set up, in order to facilitate effective interaction among all the involved security agencies in case of emergencies caused by an intentional use or discharge of HCS.

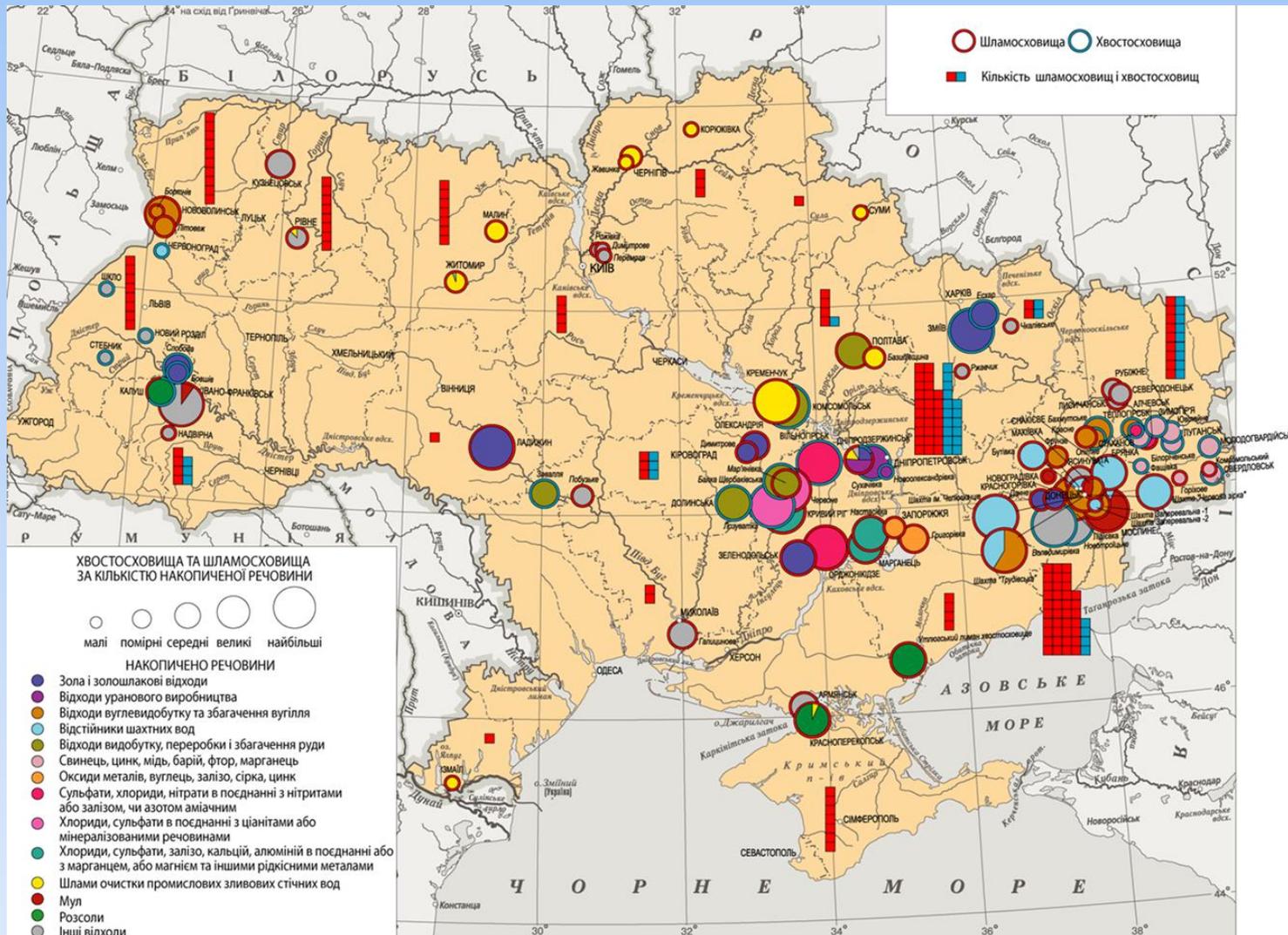
## **Main findings (9)**

### **Safety and security of manufacturing, storage, and use of chemicals by the national industry**

- National legislative and regulatory framework need to be harmonized with the EU legal framework;
- First priority documents to be developed and implemented:
  1. Regulation “On safe and secure management of chemicals”;
  2. Regulation “On safe and secure circulation of precursors for explosives”;
  3. National standard for classification and labelling of chemical products in accordance with the GHS;
  4. National standard for Safety Data Sheet development.

# Main findings (10)

## State of environment protection from effects of HCS



Source: Institute of Geography of National Academy of Science

# Main findings (11)

## State of environmental protection from effects of HCS

- Amend the Tax Code, providing for economic benefits for enterprises that meet the environmental standards;
- Implement prevention and control measures of environment pollution with industrial emissions in accordance with the EU Directive 2010/75/EC;
- Implement hazardous chemical waste processing projects with involvement of international donors;
- Qualify obsolete HCS held by the MoD as a 'hazardous waste' in accordance with the Basel Convention to allow their safe removal, including through attracting the necessary international assistance.

## **Main findings (12)**

### **Border and customs control of the movement of HCS**

- Update legislation on control of hazardous chemicals movement across the state border, including:
  - defining clear procedures for cooperation of executive authorities to prevent illegal movement of HCS;
  - introducing preliminary control over import of HCS based on a certificate of state registration;
- Conduct assessment of the level of expertise of the personnel, involved in control of HCS movement across the state border and quality of equipment;
- Establish a system of training professionals responsible for control of cross-border movement of HCS along with other CBRN materials.

# **Comprehensive Review of Chemical Safety and Security**

**Thank you for your attention**

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