

## SUSTAINABILITY FOR CAPACITY BUILDING IN CBRN SECURITY

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### **Abstract**

Global nuclear security depends strongly on the combined efforts of international organisations and leading donors together with regional coordination and national commitment. While there are several initiatives addressing CBRN risks from different angles, there are few which follow an integrated CBRN approach, in spite of the strong added value in such a strategy (for example in the coordination of response agencies and front line officers). The EU CBRN Centres of Excellence (EU CBRN CoE) is one of the only initiatives to follow this model of integrated CBRN risk mitigation, with proven success. The Initiative addresses risks related to CBRN material and agents of any origin: criminal (proliferation, theft, sabotage and illicit trafficking), accidental (industrial catastrophes, in particular chemical or nuclear, waste treatment and transport) or natural (mainly pandemics but also consequence of natural hazards on CBRN material and facilities). This approach reinforces the countries' competences in addressing the CBRN risks not only in a strict security scenario but also in other settings of accidental or natural occurring releases, which enhances the sustainability and endurance of the capacities developed.

The network structure supported by the EU CBRN CoE is also a factor of sustainability: the country hosting the EU CBRN CoE Regional Secretariat designates the Head of the Regional Secretariat, and all partner countries of the region designate a National Focal Point and a CBRN National Team, a coordinating and information-sharing working group between the different national institutions (e.g. ministries, agencies, research centres, universities etc.) involved at various levels in CBRN risk mitigation. The National Team members come from agencies involved in the country's preparation and response in the different CBRN fields: this is an opportunity for national coordination and ownership of the implementation of activities. Administrative support is ensured by UN staff.

One of the first activities implemented by the Initiative at national level is an integrated needs assessment in CBRN, in which the effective participation of the National Focal Point and of the National Team are crucial. This is also an opportunity for a first discussion of CBRN risks among the national delegates and for the mapping of other active CBRN initiatives in the country. This exercise will allow for the identification of areas for improvement where actions should be taken and, together with a risk assessment component, is the basis for the formulation of a National CBRN Action Plan. The NAP is an essential tool for national authorities to articulate priorities and coordinate the implementation of a comprehensive national strategy against CBRN risks for the medium to long term, where the capacity building activities should be nested.

The EU CBRN CoE capacity building activities are tailored to the needs of the individual countries but with a regional dimension, and resort to different mechanisms: revision of the national regulatory framework addressing CBRN risks, training of operational officers, train the trainers of programme coordinators, field and table exercises or demonstrations, networking of existing or new infrastructures and utilisation of interoperable, sustainable equipment.

## 1. THE EU CBRN CENTRES OF EXCELLENCE MODEL

### 1.1. Integrated CBRN risk coverage

The EU CBRN Centres of Excellence (EU CBRN CoE) initiative was launched in 2010 by the European Union and provides a platform for voluntary regional cooperation on all chemical, biological, radiological and nuclear related hazards, be it of criminal (trafficking, terrorism), natural (pandemics, volcanic eruptions) or accidental (e.g. Fukushima) origin. The holistic approach to the CBRN risks allows for extended participation of experts in the activities of the network and emphasizes the multi-purpose nature of the capacities acquired through the different activities (capacity building projects, field and table top exercises, round table discussions, among other activities). Under the Instrument contributing for Stability and Peace for 2014-2020 [1], a budget of EUR 156 million is available for the Initiative. Participating countries work together to identify risks, assess gaps and needs and give input on the activities or projects to be taken forward. 61 countries are now partners of the initiative with state-nominated National focal points in all Partner Countries, as well as more than 40 National CBRN teams representing national governmental stakeholders.

### 1.2. Network structure

The EU CBRN CoE Initiative seeks to boost national, regional and international cooperation and to develop a common and coherent CBRN risk mitigation policy at national and regional level. Risk mitigation actions comprise prevention, preparedness and post-event management.

The EU CBRN CoE Initiative is led, financed and implemented by the European Commission (EC), in close coordination with the European External Action Service (EEAS) and with the support of the United Nations Interregional Crime and Justice Research Institute (UNICRI) and other international organisations and local experts. EU Delegations in partner countries are also deeply involved in the Initiative, ensuring visibility and political support. The Initiative is developed with the scientific support of the Joint Research Centre (JRC) of the European Commission, the EU Member States and other stakeholders, through coherent and effective cooperation at national, regional and international level. On-site Technical Assistance experts are also made available by the European Commission in order to support project implementers, strengthen cooperation with local authorities, and enhance the technical capacity as well as the visibility of the Initiative.

The 61 Partner Countries participating to the EU CBRN CoE Initiative are divided over eight Regions:

- African Atlantic Façade
- Central Asia
- Eastern and Central Africa
- Gulf Cooperation Council Countries
- Middle East
- North Africa and Sahel
- South East Asia
- South East and Eastern Europe.

The partner country hosting the EU CBRN CoE Regional Secretariat designates the Head of the Regional Secretariat, and all partner countries of the Region designate a National Focal Point and a CBRN National Team which is a coordinating and information-sharing working group coming from different national institutions including ministries, agencies, research centres, universities etc., involved at various levels in CBRN risk mitigation. Administrative support for the Regional Secretariats is ensured by UN staff, while the European Commission's JRC provides experts to support the National Teams in assessing their needs and drafting the subsequent National Action Plan.

### 1.3. Consistent bottom up approach

The definition and implementation of the necessary actions to mitigate found gaps in CBRN capacities needs to be strongly rooted in the national authorities and to be subject to extended discussion within the country's relevant agencies, in order to be later endorsed by the national government and supported by international cooperation in a real bottom up approach. A lack of harmonized national preparedness and fragmentation of responsibilities within the national, regional or international relevant network could be exploited by non-state actors to develop an illegal traffic of CBRN agents or make use of an uncontrolled export of dual-use items. The role of the National Focal Points is of great importance for the smooth and efficient implementation of the Initiative ensuring a consistent way of operating. The increasing awareness of Partner Countries of the need of strengthening CBRN risk mitigation – in order to prevent CBRN incidents, criminal attacks and terrorism - has translated into a more visible role for NFPs in the administration of Partner Countries. In a number of Partner Countries, the role of the NFP and the national CBRN teams has been formalised and operational budgets for the carrying out of their functions have been institutionalised.

#### **1.4. Complementarity, synergy and donor coordination**

No single institution or country has all the capabilities needed to respond to international public health emergencies caused by epidemics, natural disasters, environmental emergencies, chemical or biological attacks, or new and emerging infectious diseases; therefore, an effective strategy to deal with CBRN risk mitigation requires a high level of co-operation and co-ordination among many different authorities within and between countries. CBRN security needs to be addressed through coordinated action and cooperation between and within governments, the corporate sector, civil society, the media and individuals. Coordination and cooperation with other international organisations (WHO, OSCE, IAEA, Committee under UNSCR 1540, OPCW, NATO etc.) to avoid duplication of efforts and the mutual leverage and synergies of actions will be continued.

Collaboration with other international donors continues to be sought, when appropriate, including with the EU Member States, many of whom are already participating in the Initiative as project implementers. In Southeast Asia, coordination will take place with other partners of the ASEAN providing assistance in the field of CBRN risk mitigation. In the same way in Africa, African Union and the different regional organizations are called to be involved and to provide their expertise. Collaboration with other international donors and relevant initiatives will also be sought, when appropriate, including with the EU Member States.

Two intergovernmental organizations, the Science and Technology Center in Ukraine (STCU, Kiev) and the International Science and Technology Center in Kazakhstan (ISTC, Astana), exist to support the redirection of scientists and engineers with dual use knowledge and the implementation of CBRN activities. Coordination takes place with major parties such as the USA and Japan. Both centers are nowadays reviewing their project cycle in order to promote regional projects with larger impact beyond the scientific communities.

In the field of export control a coordination working group has been established with the United States. Following first efforts in 2015 to include Export Control of Dual Use into Non-Proliferation Dialogs with third countries, further activities will be developed in 2019. Further to first activities on a regional basis in the Gulf Countries organised in 2015, the focus on regional efforts will be expanded in e.g. South East Asia and Central Asia with the aim to increase regional Export Control on dual use items cooperation.

Close coordination is on-going between EU services (health, internal affairs including security policy and security research, civil protection, customs, trade), as well as with International organizations including for example the IAEA, WHO and the United States.

## **2. BASIS OF A SUCCESSFUL CAPACITY BUILDING PROGRAMME**

### **2.1. Holistic and participative needs assessment**

The Needs Assessment Questionnaire (NAQ) was developed to facilitate the assessment of the national CBRN risk mitigation capacities and related needs. The questionnaire reflects the best international experience in the implementation of effective CBRN risk mitigation measures. The NAQ is intended to be used on a voluntary basis by national authorities and their representatives to achieve the following objectives:

- review the elements of the national CBRN risk mitigation strategy,
- review the national infrastructure in place for CBRN risk mitigation,

- identify gaps in CBRN risk mitigation capacity and prioritize the needs.

The NAQ was designed for self-assessment of the CoE Partner Countries coupled with support from the EU CBRN experts. Moreover, the needs assessment process itself triggers valuable discussion among national CBRN experts. The questionnaire enables collection of the information and prioritization, first at a national and finally at a regional level, of needs to be addressed through tailored projects. The NAQ can be further used as a basis for development of National CBRN Action Plan and will enable monitoring of the progress made. The information provided by national CBRN stakeholders will remain property of the partner country. The decision to share the data, and with whom, will remain the prerogative of the partner country. Any data released to the EC will be treated as confidential. The EC will, with Partner Country's agreement, use the outcome for planning and implementation of activities within the CoE framework. The data or the evaluation will not be released to any third parties except in an agreement with the partner country.

The NAQ consist of around 300 closed questions and it is structured according to international practice which should lead the national CBRN representatives through all main elements of the national CBRN related infrastructure and risk mitigation measures. Answering the questions included in the questionnaire will require a review and an evaluation of the current status of the national CBRN risk mitigation strategy and related infrastructure.

The questionnaire has nine sections:

- Legislation and regulation for CBRN material, facilities and activities
- CBRN managing authorities
- Risk mitigating strategy
- CBRN prevention measures
- Detection of CBRN material
- Preparedness for potential CBRN incidents and response
- CBRN recovery measures
- Sustainability
- Export control of dual-use items

The questions in these sections cover the main areas of a CBRN risk mitigation system, from the national legal and institutional framework governing the safety and security of CBRN materials and facilities, CBRN emergency preparedness, response and recovery, import and export control, customs and border control to national inventories of CBRN materials, security measures for CBRN materials, facilities and transport operations, measures to prevent the illegal acquisition of CBRN materials, measures to ensure the response and recovery in case of a CBRN incident, including the available detection equipment, operational response centres, or the first responders' equipment.

A simple assessment of the existing elements in the country against the themes in the questionnaire will offer very first suggestions on missing elements or weaker areas and consequently, identify fields where the improvements would be beneficial.

## **2.2. Identification and prioritisation of actions with risk assessment support**

The elaboration of a plan of action regarding CBRN risks is an essential tool for national authorities to articulate priorities and coordinate the implementation of a comprehensive safety and security national strategy against CBRN risks. On a confidential basis and upon request by the EU CBRN CoE partner countries, the EC is providing support for the drafting of the CBRN National Action Plans (NAP).

In this context, the current guidelines have been developed by the JRC, in order to facilitate their preparation and to bring consistency in terms of information required and final appearance of the plans. The structure and template for the table of actions are proposed to the CoE partner countries who should be responsible for its completion, with the possibility of requiring the technical support of the JRC.

The JRC is able to assist in obtaining a comprehensive overview of the countries' capabilities and needs related to CBRN risk mitigation, highlighting main hazards and threats and possible gaps identified during the NAQ exercise previously performed by each partner country. The data collected can be summarised in a NAQ data analysis report (including a short statistical analysis and a brief description of the main findings from the NAQ) and extracted into a draft table of high-level actions. After being revised by the team of experts

supporting the process, this proposal is then presented to the EU CBRN CoE NFP and National Team. These two documents, in addition to further information available concerning national and international CBRN-related commitments engaging the partner country, will form the basis for the NAP.

In between the implementation of NAQ and NAP discussions the Partner Country is encouraged to apply a CBRN risk assessment methodology with the support of the On Site Technical Assistance experts and/or of the JRC. This methodology follows the standard risk assessment algorithms as proposed by the international standards [2] with the necessary tailoring of questions for CBRN security focus.

As with the NAQ, EU CBRN CoE partner countries will be encouraged to develop the NAP on a voluntary basis and with the JRC technical support (if required), while being assured that all data collected will be treated as confidential and belong to the partner country concerned (no information will be released to third parties except if agreed by the partner country).

The Partner Country is the lead for the official adoption, coherent implementation and regular updates of the NAP will be sole responsibility of the partner country, with the support of the EU when requested and relevant.

The CBRN risk assessment methodology included in the NAP exercise is an additional step in support to prioritization of actions and investments in areas identified as relevant for the country; it helps to characterise the risk situations and to monitor progress in the mitigation actions. Therefore it is a logical component of the flow between needs assessment and drafting of the national action plans, and particularly to the ranking of priority in the actions contained therein.

### **2.3. Consistent capacity building activities**

#### *2.3.1. Training*

Since the launching of the first projects in 2012, the EU CBRN CoE initiative has hosted more than 200 training events of different types which have reached around 2000 participants. The training topics range from border control and combatting illicit trafficking to crisis management and public health impact mitigation.

The implementation of trainings under the EU CBRN CoE Initiative has produced more than 460 training materials which are stored in a database accessible to the implementation partners. In total, the database counts 115 training materials related to chemical risks, 171 to biological, 91 trainings under the radiological and nuclear realm and 84 horizontal topics.

The number of trainees per event varied considerably, depending on the type of training. For instance, the 2013 training course on “Rapid Assessment in Complex Public Health Emergencies” in the African Atlantic Facade had only three very specialised participants, while the 2014 workshop on “Strengthening the Culture of Responsibility in Central Asia” counted 148.

Also the type of training implemented varies considerably, ranging from classroom trainings for first responders and public officials to international workshops on broad thematic areas. As an example, the 2017 “Train the Trainer Module 1 in Urgent Medical Assistance in CBRN Incidents” in the MIE Region trained officials from the Ministry of Defence, the Ministry of Interior as well as from the National Security Service. During the previous year, a practical training on how to perform antibiograms was given to local doctors, pharmacists and technicians in several EU CBRN CoE Regions. International workshops address broader issues such as dual use or biosecurity and gather several Regions.

The EU CBRN CoE training database offers the possibility to access existing training material developed under the CoE initiative and share knowledge between projects. Partner countries and implementing partners can use the search functions on the private portal of the EU CBRN CoE in order to sort training materials according to their needs. The training material has been categorised by several categories, such as area(s) C, B, R or N or combinations of those; languages and type of training material (such as presentations or in classroom exercises, videos or interactive game-type material).

The tool also allows searching materials by content: for this purpose over 50 tags were created to classify different materials. The training database is the first step towards a more harmonized training strategy to be offered by the EU CBRN CoE initiative.

#### *2.3.2. Field and Table Top Exercises*

A greater focus has been given by the Initiative on the organization of regional and sub-regional Table top and Field Exercises, recognizing that these are instrumental in making capacity building more effective and sustainable. The practical exercises allow the participants to move from theoretical lessons and presentations to scenario elaborations, practical exercises and simulations. In addition, exercises can serve as indicators of the impact of projects.

Regional cooperation is evidenced by the following examples of cross border exercises: three consecutive field exercises on post Ebola biological risks in the African Atlantic Facade region in 2018; two regional exercises in the South East and Eastern Europe region in 2018, one Table Top and one Field exercise “Lionshield”; a field exercise on biological toxins and chemical cross-border contaminations (“Jeyran”) was successfully organised in Central Asia in 2019.

### *2.3.3. Networking of Infrastructures*

The sustainability of the capacity building actions deployed by the EU CBRN CoE Initiative is one of the concerns of the implementing partners, and requires the engagement of all the stakeholders, both in the EU and Partner Countries. The EC is working with all partners to identify and link training institutions working on specific aspects of CBRN in order to reinforce the network identity of the Initiative, including these training centre coordinates in the database of the EU Horizon 2020 project eNotice. This project aims at building a dynamic, functional and sustainable network of civil and military CBRN Training Centres, testing and demonstration sites, for enhanced capacity building in training and user-driven innovation and research, based on well-identified needs. The training institutions have been identified in the EU and in the partner regions, and training programmes are being developed at these various centres according to the needs expressed by the partner countries.

## 3. CONCLUSIONS

The EU CBRN CoE Initiative has entered a phase of maturity as it celebrates its 10 years of implementation. The 82 projects implemented or under implementation under this Initiative represent the EU commitment to enhancing CBRN security worldwide in a sustainable and coordinated way. In summary, the adequate combination of a bottom-up needs assessment, a consistent network of contact points and national teams, the development of a government-endorsed national action plan, the implementation of impactful and well-coordinated projects and a strong local ownership of the capacity building activities, is the EU CBRN CoE strategy for promoting sustainability in global CBRN security.

## REFERENCES

- [1] Official Journal of the European Union L 77, 15.03.2014
- [2] ISO 31000:2009 Risk management — Principles and guidelines <https://www.iso.org/standard/43170.html>