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CBRN risk assessment training package initiated in the SEE region

By Anaïs Joerger, Talgat Toleubayev and Alina Iatan
Brussels, May 2022

Risks associated with the Chemical, Biological, Radiological and Nuclear (CBRN) materials may have very devastating and far-reaching negative consequences, if countries do not address and mitigate them properly. This wide spectrum of CBRN risks include safety and security concerns to population and industry, environmental hazards, institutional and infrastructure considerations. For this reason, the subject of CBRN risk assessment and mitigation is an important component of national security of our Partner Countries. Consequently, a series of training sessions on risk assessment has been initiated in the South East and Eastern Europe region.

This approach in CBRN Risk assessment and risk management can easily be replicated, and adapted as needed, in the other seven regions which are part of the EU's CBRN CoE Initiative. Partner Countries may avail themselves of this opportunity prior to developing their CBRN National Strategies and National Action Plans.



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CBRN terrorism was identified as a priority in Lebanon's CBRN National Action Plan. In the picture, a Beirut Fire Fighter manages a chemical release during Lebanon's 'ARZ 2021' field exercise, aimed at improving first response to a CBRN terrorism threat in the country.

HIGHLIGHTS from the CBRN CoE's 8 Regions



**Lebanon's ARZ field exercise
countering CBRN terrorism**



**Series of CBRN
Forensics Guidebooks**



**Eastern and Central Africa Regional
Secretariat Official Inauguration**

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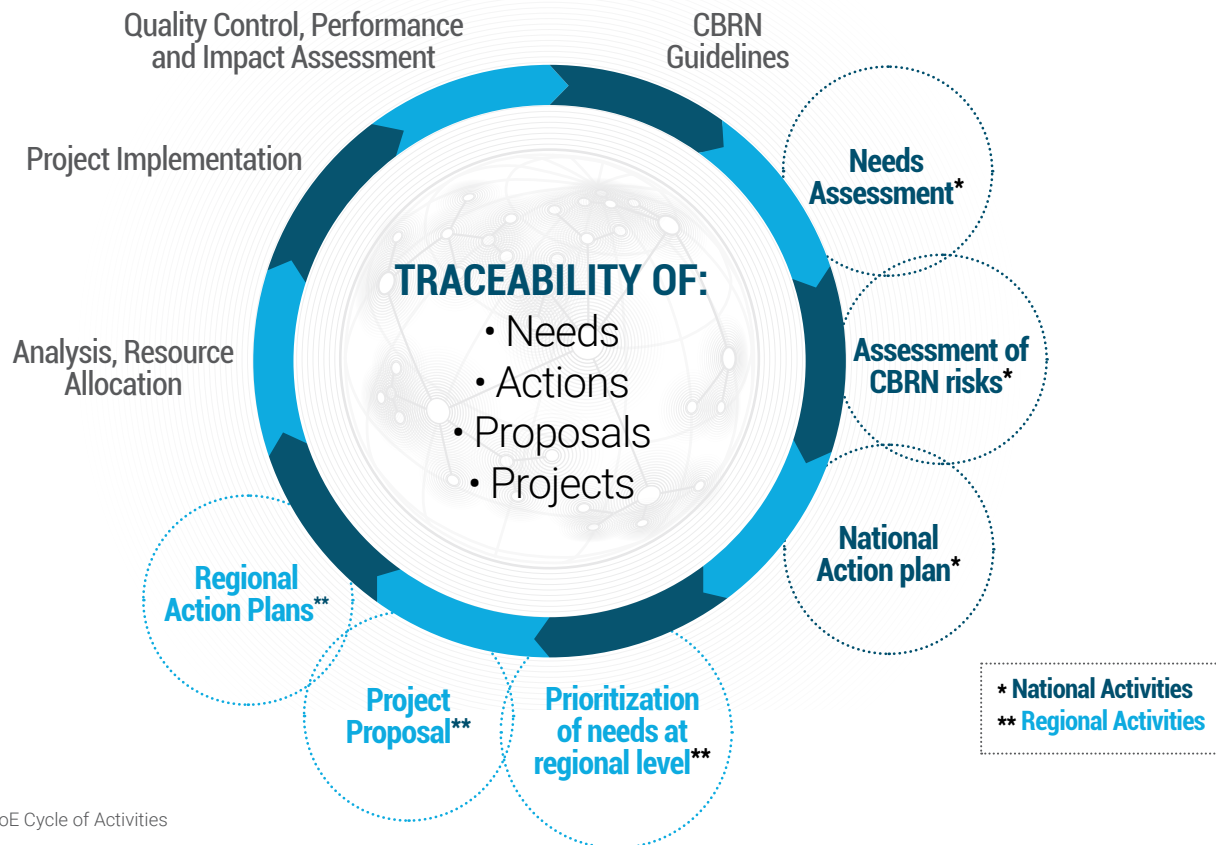
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TABLE OF COMMON ACRONYMS: **AAF** = African Atlantic Façade; **ASEAN** = Association of Southeast Asian Nations; **BFP** = Bureau of Fire Protection of the Philippines; **CA** = Central Asia; **CBRN** = Chemical, Biological, Radiological and Nuclear; **CoE** = Centres of Excellence; **DG FPI** = European Commission's Directorate General for Foreign Policy Instruments; **EC** = European Commission; **ECA** = Eastern and Central Africa; **EEAS** = European External Action Service; eNOTICE = European Network of CBRN Training Centres; **Europol** = European Union's Law Enforcement Agency; **GCC** = Gulf Cooperation Council Countries; **HoS** = Heads of Secretariat; **IAEA** = International Atomic Energy Agency; **IAP** = International Association of Prosecutors; **INTERPOL** = International Criminal Police Organization; **IPD** = Pasteur Institute in Dakar; **ISEM** = International Security and Emergency Management Institute; **ISTC** = International Science and Technology Center; **JRC** = Joint Research Centre; **KEMRI** = Kenya Medical Research Institute; **KNRA** = Kenya Nuclear Regulatory Authority; **LAEC** = Lebanese Atomic Energy Commission; **MediPIET** = Mediterranean and Black Sea Programme for Intervention Epidemiology Training; **MIE** = Middle East; **MORU** = Mahidol Oxford Tropical Medicine Research Unit, Bangkok; **MoU** = Memorandum of Understanding; **NACW** = National Authority for the Prohibition of Chemical, Nuclear, Biological and Radiological Weapons, Cambodia; **NAQ** = Need Assessment Questionnaire; **NAP** = Need Assessment Plan; **NAS** = North Africa and Sahel; **NFP** = National Focal Point; **OSA** = On-Site Technical Assistant; **NATO** = North Atlantic Treaty Organization; **OPCW** = Organization for the Prohibition of Chemical Weapons; **RAP** = Regional Action Plan; **RIVM** = Dutch National Institute for Public Health and the Environment; **RS** = Regional Secretariat; **RTM** = Round Table Meeting; **SCK CEN** = Belgian Nuclear Research Centre; **SCS** = Supply Chain Security; **SEA** = South East Asia; **SEEE** = South East and Eastern Europe; **SFMHP** = Sub-standard and Falsified Medicines and Health Products; **TDG** = Transport of dangerous goods; **UKHSA** = United Kingdom's Health Security Agency; **UNDSS** = United Nations Department of Safety and Security; **UNICRI** = United Nations Interregional Crime and Justice Research Institute; **UNODA** = United Nations Office for Disarmament Affairs; **WHO** = World Health Organization; **WIN** = Women in Nuclear; **WMD** = Weapons of Mass Destruction.



CBRN CoE Activity Cycle



The CBRN CoE Cycle of Activities

Continued from cover article ...

What is the CBRN risk assessment exercise?

The CBRN risk assessment exercise has been introduced within the CBRN CoE exercises following a recommendation made by the European Court of Auditors in its 2018 Special Report n°14. A methodology has therefore been developed by the European Commission's (EC) Joint Research Centre (JRC) in collaboration with the On-Site-Assistance (OSA) experts and relevant Regional Secretariats. This methodology aims to rank the most important CBRN risks in the country and to achieve a more structured prioritisation of the National Action Plan (NAP) actions. More specifically, the risk assessment enables the national team to have a deeper reflexion on the CBRN risks present in the country, to prioritise actions and investments in the areas

identified, to characterise risks situations and to monitor progress in the mitigation actions.

In practical terms, this exercise can take place between the Needs Assessment Questionnaire (NAQ) and the drafting of the NAP or when found timely by the National Focal Points (NFP). It will take the form of a technical workshop during which the partner country will go through the different steps of the methodology, with support of the OSA and other relevant stakeholders.

A growing interest for risk assessment in the SEEE region

In the South East and Eastern Europe (SEEE) region, the CBRN risk assessment exercise was touched upon during the regional NFP Round Table Meetings as well as many bilateral meetings with relevant stakeholders.

In addition to this, the CBRN Risk Assessment has been identified among the top priorities within the CBRN Regional Action Plan (RAP) under preparation in the region for the coming 5 years to effectively mitigate CBRN risks. Each of the eleven priority areas identified will be complemented with their specific actions identified by relevant partner countries experts.

Based on this growing interest for risk assessment and for more guidance on the methodology, the Regional Secretariat suggested to set up a training package for the national and regional experts to improve their collective understanding of CBRN risks. Discussions took place with the United Nations Interregional Crime and Justice Research Institute (UNICRI) regional coordinator, the OSA experts and the JRC that provided its support in the implementation.





CBRN risk and threat assessment training package's 3-step approach.

Building of the risk assessment training package

Building upon the risk assessment capabilities in the SEEE region, it was agreed to design a comprehensive training package on CBRN Risk assessment and management consisting of a mix of regional and national training sessions to be delivered in 3 steps.

The generic training on the ISO 31000 standard on risk management (1st step) provides a framework to define risks and risk management, to understand the different approaches and their benefits as well as the prioritization and management of risks, to explore effective assessment techniques, risk management as an integral part of strategic decision-making and the management of change. Two regional trainings were offered on 14 July 2021 (for the Balkan countries) and 21 July 2021 (for Eastern European countries) that were attended by fifty-four trainees from nine countries of the SEEE region.

The regional CBRN risk assessment training (2nd step) aims to turn theory into practice using risk management techniques to improve risk assessment and risk management. This training offers an opportunity to explore the context within which CBRN risks are managed, to practise tools to identify risks and consider what could be the most effective actions to manage CBRN risks. This exercise allowed participants to practise the CBRN Risk Assessment principles with their own country experts, so that they may replicate it when necessary with their CBRN National Team members back home. Two identical trainings have been delivered

on 1 December 2021 and 16 December 2021. Same participants who completed the initial summer training sessions were invited.

Since the SEEE Partner Countries have successfully completed a series of regional generic training sessions, they were encouraged to consider the possibility of requesting some additional national training / workshop session on specific CBRN risk assessment issues (3rd step). The third step may be a mixture of training and technical workshops at national level aimed at sharing best practices on CBRN risk assessment exercises. This workshop can be organised upon request of the partner country and is led by the OSA expert or other identified subject matter experts.

The risk assessment concepts and practical knowledge acquired by the CBRN national experts makes it easier for the CoE Partner Countries to integrate risk management into their overall efforts to define a comprehensive CBRN

national action plan and to continually improve their CBRN emergency planning and response.

Next steps

The SEEE Regional Secretariat, the EC Joint Research Centre, the EC Service for Foreign Policy Instruments (FPI) and UNICRI will continue to render their support to Partner Countries in moving towards the third step of the process, which aims at the development of the national CBRN Threat Assessment framework.

This approach in CBRN Risk Management and Assessment can easily be replicated, and adapted as needed, in the other seven regions which are part of the EU's CBRN CoE Initiative. Partner Countries may avail themselves of this opportunity prior to developing their CBRN National Strategies and National Action Plans. To this aim, the risk assessment training package was presented at the CBRN CoE Heads of Secretariats (HoS) meeting held on 22 November 2021. □



Backdrop of the Risk Management training video conference.



WOMEN IN CBRN

Gender parity within the CBRN

By Margaryta Rayets

The promotion of gender parity in professional fields is a very up-to-date question. Until recently, the issue of gender has not been considered in the CBRN domain, where there is no global network for Women in CBRN. However, a good example of the promotion of gender parity in the nuclear sector is the worldwide non-profit network Women in Nuclear Global.

Also known as WiN Global, this network currently counts around 35,000 members from 129 countries, has over 42 national, regional and international chapters throughout the world, and it is still growing. Members include women and men working professionally in medicine and health care, in regulatory authorities, in industry, and as independent researchers. The members have a common commitment to provide information and communicate with the public.

WiN Global and its national chapters are a very good example of how gender parity can be promoted in the CBRN professional sphere. For Women in Nuclear Ukraine, a national chapter of WiN Global, a starting point for establishing the comprehensive cooperation among women professionals working in CBRN directions was the signing of a Memorandum of Understanding with the organization Women of Eurasia in Pest Management, in September 2021.

The signing of this MoU was the very first step of a collaboration which shortly after led to the participation of WiN Ukraine in the 9th Heads of Secretariat (HoS)



Ms Margaryta Rayets (left), WiN Ukraine President, and Ms Iryna Bryliova (right), Head of Women of Eurasia in Pest Management sign MoU between the two organisations, in Kyiv, Ukraine, September 2021.

meeting of the EU CBRN Risk Mitigation Centres of Excellence Initiative, where WiN Ukraine presented the initiative “Women in CBRN”. It is indeed a rather important mission to gather all efforts under one umbrella with international support, and so being able to promote cooperation at global level between

women professionals in the fields of chemical, biological, radiological and nuclear safety and security.

The “Women in CBRN” initiative, as an international umbrella network, could facilitate the implementation of multiple CBRN activities, such as the exchange of information related to the areas of cooperation; consultations on issues connected to the spheres of activity; planning of joint activities; joint development of projects and the creation of conditions for their implementation; the establishment and consolidations of experts activities; as well as joint working groups, advisory and expert bodies.

“ It is a rather important mission to gather all efforts for women in CBRN under one umbrella with international support ”

The article ‘Women in CBRN’ was provided by the SEEE region. □



AFRICAN ATLANTIC FAÇADE

By Youcef Hemimou, Stefania Micucci and Ilaria Mussetti

Foundation stone laid for the African Centre for Resilience to Epidemics CARE, a benchmark in safety and biosecurity

Ilaria Mussetti

On 6 December 2021, the foundation stone was laid for the African Centre for Resilience to Epidemics CARE at the Pasteur Institute in Dakar (IPD), Senegal. The President of the European Council, Mr. Charles Michel, attended the ceremony.

Launched with the support of the EU CBRN CoE initiative, the CARE Centre of Excellence will be a benchmark in terms of safety and biosecurity, with expertise

in the most efficient technologies. Its mission will also be the development of new disease control strategies that will strengthen the response to epidemics.

Strengthening the COVID-19 response in Africa

The CARE is part of the Project LABPLUS Africa, which aims to offer a strategic framework to strengthen the COVID-19 response in Africa. Overall, the programme will implement an innovative approach to health services by upgrading the IPD facilities to accommodate new control technologies, and provide specialised training for the whole region.

LABPLUS Africa is delivered on behalf



Preparation for the stone laying ceremony.

of the EU CBRN CoE by the consortium partners Praesens Foundation and the Fondation Institut Pasteur de Dakar.



President of the European Council, Mr. Charles Michel (centre) lays foundation stone for the CARE Centre of Excellence in Dakar, Senegal, on 6 December 2021.





Trucks suitable for the transportation of dangerous chemicals lined up at a chemical plant.

INSTASUR* and SECTRANS:
a strengthened framework to
secure the risk management
involving chemicals in the
African Atlantic Façade Region**

Youcef Hemimou, Stefania Micucci
and Ilaria Mussetti

The result of a work started in 2015

Since 2015 with Project 41, then 2017 with projects 69 INSTASUR and 71 SECTRANS, the EU CBRN CoE has supported the Partner Countries of the African Atlantic Façade (AAF) region in setting up an institutional, legal, technical and operational framework to oversee the installations and the transportation involving dangerous chemicals.

These projects have been essential to ensure safe economic development and to build an efficient industrial fabric without risk to the population and the environment in the region.

If the industrial accidents such as Seveso in 1976 and Bhopal in 1986, at the origin of the strengthening of industrial safety in Europe, remain anchored in our memories, the disaster of the port of Beirut in August 2020 and the

transportation accident in Sierre Leone in November 2021 constantly remind us of the importance of preventing technological risks and building capacities to respond to accidents.

An undeniable success

Despite the COVID-19 pandemic, which has been in many ways unprecedented for the whole world, all the work accomplished by the Partner Countries during the implementation of the projects, with the support of the local and international experts, has had a real and concrete impact in the advancement of industrial risk reduction policies. After more than 3 years of project implementation, the closing ceremonies of Project 69 in October 2021, and Project 71 in December 2021, were the occasion to reflect on the positive achievements across 3 fields:

- Legal and institutional:

each partner country now has an inventory, highlighting the regulatory priorities to be implemented;

- Methodological:

the territorial vulnerability matrix, the safety report, and internal and external emergency plans have been rolled out in a few countries;

- Operational:

skills are strengthened. Awareness sessions were organised in each country for those involved in industrial risk management, as well as training sessions for selected trainers.

“These projects have been essential to ensure safe economic development and to build an efficient industrial fabric without risk to the population and the environment in the region”

Among these many successes, two deserve special attention: the new regulatory framework put in place in Gabon, and the regional exercise organised in Dakar for the closure of Project 71:

New regulatory framework in Gabon

Since 17 December 2021, the new decree setting the legal regime for high-risk installations for the environment and the population has entered into force. It requires carrying out a safety report, drawing up internal and external emergency plans, and setting up requirements around high-risk installations to strengthen the protection of the popu-

*INSTASUR : High risk chemical facilities and risk mitigation in the African Atlantic Façade Region(P69)

** SECTRANS : Safer and more secure transportation of dangerous goods by road and rail in the AAF region (P71)





AAF REGION



P69 INSTASUR Closing Ceremony.



P71 SECTRANS Closing Ceremony.

lation and the environment. Initiated in 2015 with Project 41, this decree marks a new milestone for the industrial accident prevention policy in Gabon. These achievements were made possible thanks to the strong involvement and perseverance of the EU CBRN CoE National Focal Point of Gabon, Mr. Jean-Maurice Ayine, and the legal officer of the Gabonese Ministry of Environment, Ms. Trésor Avomo. The reform is currently being reviewed in the other Partner Countries.

A regional exercise of a transport accident

The project SECTRANS has had among its main objectives to meet not only the challenges of prevention in the transportation of dangerous goods, but also those of response in order to reduce the severity of the consequences in the event of an accident. This is an effort that involves the mobilization and coordination of multiple actors and skills.

The regional exercise of a transportation accident of a toxic and flammable

chemical material carried out near the port of Dakar, a simulation event marking the closure of Project 71, was an opportunity for the participants to put into practice theoretical learning and to test in close to real-life conditions certain operational procedures by mobilizing the equipment provided by the European Union within the framework of Project 70. *[To know more about the equipment provided, read the news article 'Progressive delivery of equipment for intervention in the transport of dangerous goods and risk mitigation']*





Leak of a toxic and flammable product.

SECTRANS PROJECT 71

The main successes of the Sectrans Project 71 in numbers:

The project “Safer transportation of dangerous goods by road and rail in the African Atlantic Façade Region” targets the ten Partner Countries of the CBRN Centre of Excellence of the African Atlantic Façade : Benin, Cameroon, Ivory Coast, Gabon, Liberia, Mauritania, Morocco, Senegal, Sierra Leone and Togo.

10 NATIONAL REFERENCE DOCUMENTS PRODUCED

REGIONAL REFERENCE DOCUMENT DRAWN UP **1**

2200 PROFESSIONALS TRAINED

4 PRACTICAL/ OPERATIONAL GUIDEBOOKS PRODUCED

E-LEARNING MODULES DEVELOPED **13**

127 PROFESSIONALS TRAINED THROUGH ONLINE TRAINING

published by Nicolas Jal, OSA North Africa and Sahel Region (NAS), within the NAS section of this Newsletter (page 34).]

Items such as collective and individual protection equipment, response equipment, and chemical and radiation detection equipment, were distributed to the first responders who secure the area and looked out for protecting the people nearby. This early step is of crucial importance for the safety of people and the environment.

The EU CBRN CoE national focal point of Senegal, Ms Ramatoulaye Diop, the team of the Ministry of the Environment of Senegal as well as other actors involved, were decisive in the success of this regional exercise.

Ensure better visibility of the CoE actions

To ensure the visibility of the actions carried out within the framework of the EU CBRN CoE, the AAF Regional Secretariat actively participated in the delivery of

two brochures showcasing the main successes of each project. Targeted to all national and international bodies involved in the management of chemical risks in partner countries, these communication outputs aim to inform about the considerable progress made in the AAF region in relation to the implementation of policies for the prevention of industrial accidents, as well as to awareness-raising on these subjects.

2022 outlook

Significant reforms in the field of industrial risks are in progress building up on the successes of Projects 69 and 71. The AAF Partner Countries decided during the National Focal Points Round Table Meeting held in June 2021, to continue the work in order to finalise the institutional framework and put into practice the know-how learned on pilot sites. During the closing ceremonies, the AAF Regional Secretariat presented the objectives of the follow-up of the Projects 69 and 71 under a single project scheduled for the first half of 2022. □



Detection technology.



CBRN intervention equipment.

[CLICK HERE for the French language version of this article.](#)





CENTRAL ASIA

By Bakhtiyor Gulyamov, Nargizakhon Usmanova, Dr. Yaugen Ryzhykau, Dr. Lela Bakanidze, ISTC, Dr. Joanna Zwetyenga and Andrew Proudlove

The 14th Round Table Meeting

by Nargizakhon Usmanova and Bakhtiyor Gulyamov

Kazakhstan, the newest member of the Centres of Excellence network, hosted the 14th Round Table meeting of Central Asia (CA) held in Almaty on 1-3 June 2021. The meeting was attended in person by the head of the CA Secretariat, the Regional Coordinator, the National Focal Points of Kazakhstan, Uzbekistan, Afghanistan, Pakistan, Kyrgyz Republic, the representative of the Ministry of Foreign Affairs of Mongolia and remotely by the European Commission representatives, the on-site assistant, the National Focal Point of Mongolia and several project implementers.

The main topics of the meeting were:

- finalization of the CBRN Regional Action Plan and its subsequent endorsement by Partner Countries
- launch of a new regional project P87 "PRECA"
- successful implementation of projects P53 and P65
- delivery of mobile laboratories to Uzbekistan,
- delivery of awareness raising trainings to more than 500 university students in 2021
- participation of women-virologists in the international UN campaign "Women in Science"
- organization of an inter-regional workshop with the International Atomic Energy Agency- developed (IAEA) Integrated Nuclear Security

Support Plan (INSSP) on nuclear security in Q2/2022

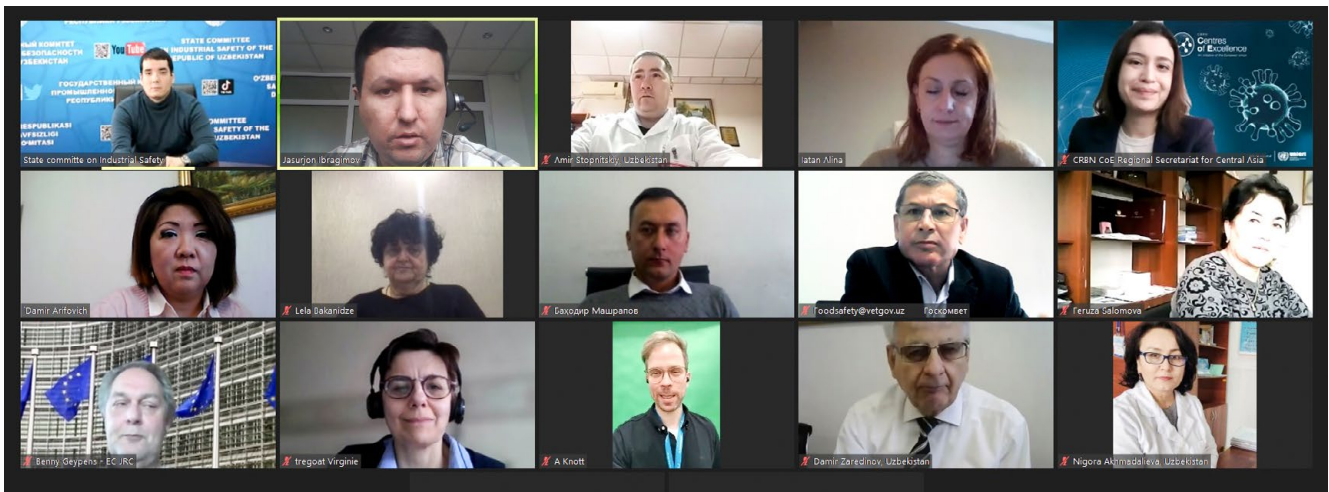
- possible table-top exercise and/or regional field exercise in cooperation with LEICA project.

For the last day, the Regional Secretariat for Central Asia organised a visit for interested participants to Masgut Aikimbayev's National Scientific Center for Especially Dangerous Infections (NSCEDI) of the Ministry of Health of the Republic of Kazakhstan. On this occasion, the RTM participants has an opportunity to get acquainted with the NSCEDI facilities and capabilities, share experience and discuss prospects of future cooperation.



Group photo during the 14th Round Table Meeting of Central Asia (CA) held in Almaty, Kazakhstan.





Workshop on National Action Plan Review for Uzbekistan. Credits: CA Regional Secretariat

Workshop on National Action Plan Review for Uzbekistan

by Nargizakhon Usmanova and Bakhtiyor Gulyamov

On 8-11 February 2022, the State Committee on Industrial Safety of the Republic of Uzbekistan hosted a workshop with the national team of Uzbek experts to review and update the CBRN National Action Plan based on the experiences of the implementation of the current version and the lessons learnt from COVID pandemics. The online event was attended by representatives of the State Committee on Industrial Safety of the Republic of Uzbekistan, experts from the EU Joint Research Centre (JRC), UNICRI and CBRN National Team of Uzbekistan, represented by various ministries and agencies and closely involved in the implementation of the NAP.

The meeting was opened by Mr. Bakhtiyor Gulyamov, Head of the EU CBRN CoE Regional Secretariat for Central Asia, who welcomed the participants and briefly highlighted the results achieved within the framework of NAP implementation in Uzbekistan during 2018-2021, as well as the importance of the NAP to ensure the implementation of international commitments on chemical, biological, radiation and nuclear safety and security.

While the first day of the working meeting was devoted to aspects of achievements and challenges the implementation of the NAP for 2018-2021, the second and third days made it possible for the experts to elaborate on the process of drafting the CBRN NAP and identify some new specific actions and tasks to strengthen national CBRN capabilities and reinforce the national regulatory framework to meet international commitments under the UN resolution 1540, CWC, BTWC and International Atomic Energy Agency (IAEA) safeguards agreements.

Throughout the workshop, the JRC experts provided a hands-on training on needs identification and prioritization of actions, with a focus on all four areas of work – chemical, biological, radiological and nuclear security. Overall, the workshop was of high interest to the participants and put forward many interesting proposals, spurring participants to investigate them further on their own.

Upon workshop completion, the National CBRN Team of Uzbekistan has embarked on the development of the new NAP for the period of 2022-2024. It is expected that the new NAP target a number of priorities, such as preventing the illicit movement and proliferation of nuclear, chemical and biological weapons and

their means of delivery; improvement of the regulatory framework in the field of chemical, biological, radiation and nuclear safety; strengthening the material and technical base of authorized state bodies; organization of training, retraining and mentoring of personnel; and strengthening international and regional cooperation and active exchange of experience in the field of chemical, biological, radiation and nuclear safety.

First Comprehensive Project under EU CBRN Programme for Central Asia and Mongolia Completed Successfully

By Dr. Yaugen Ryzhkykauov

The CoE Project 65 “Strengthening chemical and biological waste management in Central Asia countries for improved security and safety risk mitigation” (CABICHEM) is a 4-year project that ended in December 2021. The project aimed at strengthening existing chemical and biological, including medical, waste management capabilities in the Central Asia and Mongolia region to ensure safe and secure collection, transportation, separation, processing, storage, disposal and inventory of hazardous chemical and biological (C&B) waste originated by local industry, trade, agriculture, healthcare and past practices (e.g.



dumping sites, obsolete industrial and agricultural sites, former military bases, etc.), as well as a consequence of emergency situations.

Coordinated by the Military Institute of Chemistry and Radiometry (MICHR), and jointly implemented in cooperation with Fondazione FORMIT (FORMIT), the Institute of Chemical Sciences and Technologies (CNR-SCITEC), the Military Institute of Hygiene and Epidemiology (MIHE) and Fondazione Alessandro Volta (FAV), the project addressed specific needs of national and regional bodies involved in waste management in the Kyrgyz Republic, Mongolia, Pakistan, and Uzbekistan to support them in:

- reviewing and evaluating the existing legislative, regulatory and procedural frameworks concerning chemical and biological waste management at regional and national levels, with relevant recommendations to improve those;
- evaluating the current situation in each Partner Country with on-site support of local stakeholders, and developing an exhaustive list of equipment needed by facilities and laboratories dealing with C&B waste in the region;
- proposing an innovative methodology to detect and map existing burial and abandoned sites in the Central Asia region, and conducting a feasibility study to deploy possible remediation/management of such sites;
- developing and implementing a sustainable training system for selected personnel working in hazardous waste management facilities and laboratories by using a train-the-trainer approach to ensure lifelong learning and maximise knowledge dissemination in each Partner Country, to be delivered in a blended format, i.e. both on-site and online, and enhancing awareness on C&B waste management in the Central Asia region;
- establishing a regional technical consultation group to ensure regional cooperation, including after completion of Project 65.



Fact-finding mission at the waste processing facility before dumping held in Ulaanbaatar, Mongolia (May 2018).

LEGISLATIVE AND PROCEDURAL FRAMEWORK

Project activities started in 2018 with a series of fact-finding missions involving the participation of the consortium and local experts as well as representatives of local stakeholders, combined with information and data collection on the existing legislative, regulatory and procedural frameworks at regional and national levels. The close cooperation and regular interaction with National Focal Points and appointed local experts in each Partner Country enabled the project partners to take stock of, and ensure understanding of the normative and procedural fora and approaches adopted by each country. This helped the project to conduct an analyses of legislative and procedural frameworks outlining how each partner country deals with the C&B waste management issue and map all stakeholders involved into the process.

The Regional Workshop, conducted in Tashkent in October 2019, provided an opportunity to present analyses of legislative and procedural frameworks, discuss in detail gaps and needs in enhancing these frameworks, and elaborate jointly recommendations to be

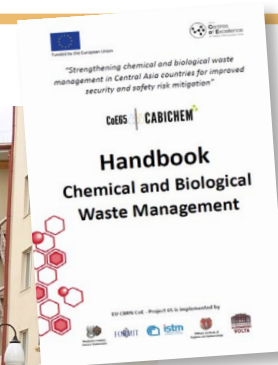
possibly implemented for optimisation of the existing legislative and procedural regulations. In addition to this, a thorough mapping of active chemical and biological sites, facilities and laboratories, potentially hazardous to the local population and the environment, was performed in each partner country thanks to active involvement of the National Focal Points and the local experts that could most jeopardise the local population and the environment.

Furthermore, project activities were focused on defining the equipment and materials needed to manage C&B waste in each of more than 30 identified sites, and developing more than 400 technical specifications for specialized equipment and materials.

SITE REMEDIATION

An inventory of current historic dumping and burial sites and abandoned industrial sites with C&B waste, including e-waste, existing in each partner country was carried out to identify the most critical sites requiring remediation actions and/or better management of hazardous waste. Innovative and tailored approaches (e.g. Assessment and Prioritisation Instrument) to identify





for a more efficient, safe and secure management of end-of-life materials that may pose a threat to human health and the environment.

To this end, “CABICHEM Handbook on Chemical and Biological Waste Management”, an important tool to disseminate best practices and guidelines on chemical and biological waste management was developed, published in six local languages of the region (i.e. Dari, English, Mongolian, Pashto, Russian, and Urdu), and disseminated among professionals and operators working in public or private sectors dealing with the generation, handling and final disposal of hazardous waste substances.

Group participants joining the Training Programme 1 held in Tashkent, Uzbekistan, (October 2019).
RIGHT: CABICHEM Handbook on Chemical and Biological Waste Management.

and characterise these dumping sites were therefore developed and shared with local experts and National Focal Points. The local experts were asked to select from two to five sites to test the methodology and collect preliminary site information through desk research and/or a site survey. The obtained data were used to fill out the tailored Assessment and Prioritisation Instrument (API) forms and prioritize the sites in terms of need and urgency of intervention.

As a result of this exercise, the most critical exposure pathways were highlighted, which were useful to get an initial understanding of the actions eventually required to mitigate risks. Based on the feedback received from local experts, some of the scores and weights used in the API procedure were tailored and modified, so that the final scores could better reflect the actual conditions and criticalities on-site. In addition, remote sensing was applied to supplement the information and substantiate case studies with regard to, inter alia, presence and distance of contaminated sites to residential or commercial areas, and to identify the extent and boundaries of the site, and changes that occurred over time.

This evaluation, carried out with the use of freely available satellite images, also helped to understand which specific methodology could allow to better detect potential waste burial sites in a specific context. Several methodologies, such as multispectral and hyperspectral analysis, thermal analysis, and synthetic aperture radar (SAR) interferometry, were employed and different indexes (e.g. dump detection) were obtained by using open software packages. Different remediation and management strategies to mitigate risks associated with C&B waste contamination were jointly reviewed to highlight the main elements and implementation measures to possibly opt for.

ON-SITE TRAINING AND AWARENESS RAISING

Another important objective of Project 65 was enhancing and improving the capability at national level to properly identify, handle, manage, treat and dispose of solid and liquid waste containing chemical and/or biological hazardous materials. The local experts and external professionals designed and implemented a set of awareness raising and capacity building initiatives

In parallel, a series of three training programmes were designed and delivered to more than 150 experts representing each partner country. Training programmes were developed according to topics that were selected by training participants, with a special focus on hazardous waste containing heavy metals, treatment of animal carcasses, handling of electronic urban waste and management of biological waste generated in COVID-19 affected areas. The project also featured a train-the-trainer approach for the maximum knowledge dissemination across the final end users in the Partner Countries.

Due to COVID-19 pandemic and associated travel restrictions imposed since March 2019, all training activities were delivered online. This approach enabled the project partners to further enhance and maximise the use of a tailored e-learning platform developed within the framework of the project and will provide trainees with sustainable training system for lifelong learning. Additional content related to biological hazardous materials emanating as a result of COVID-19 pandemic was developed and uploaded, going beyond the original scope of Project 65.





CA REGION

REGIONAL HAZARDOUS WASTE CONSULTATION GROUP

In order to ensure regional cooperation in the Central Asia region after project completion, a Regional Hazardous Waste Consultation Group (RHWCG) was set up. The establishment of RHWCG is the first step for institutionalizing consultations on hazardous waste management at the regional level. It must be noted that this work is only possible with full commitment to coordination and information exchange across Partner Countries. In November 2021 its first meeting was held online, and resulted in the election of the members, discussion of operation and financial modalities. Mr. Otabek Kasimov, (NFP of Uzbekistan) was elected as Chairperson of RHWCG. The RHWCG is therefore set up to function as a discussion platform where participants will exchange opinions and experiences about common priority issues on hazardous waste management existing at regional level, and will develop a joint roadmap for intervention.

For any further updates about Project 65, please visit www.cabichem.eu.

Increasing public awareness on CBRN risks in Uzbekistan

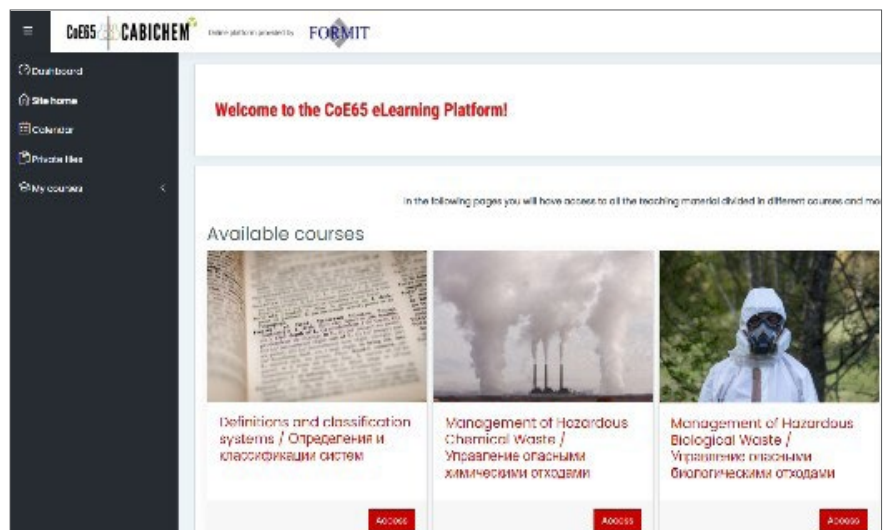
by Bakhtiyor Gulyamov, Dr. Lela Bakanidze and Nargizakhon Usmanova

In 2021, despite several surges of COVID19 pandemic, EU CBRN CoE Regional Secretariat for Central Asia had started implementation of the pilot interventions among various groups of population in Uzbekistan to increase the visibility of, and awareness about CBRN risks, within the framework of the project "Popularization and visibility of the EU CBRN CoE Initiative among the Various Layers of the Population".

To remind, this project seeks to raise the awareness of CBRN issues among children and youth through organization of lessons, meetings and drawing competitions around the topic "Safe



Group participants joining the Training Programme 1 held in Tashkent, Uzbekistan, (October 2019).



Preview of the CABICHEM e-learning platform (www.coe65-learning.eu).

world through the eyes of children." The regional project has been regarded as the one with the most innovative approach in utilizing the regional common expertise within the EU CBRN CoE Initiative.

Same as in other parts of the world, the public awareness in Central Asia on CBRN threats tended to be low in comparison to other types of emergencies and disasters. The studies² indicate that general public is frequently confused in terms of the different effects of CBRN agents, and the different protective measures that might be necessary in relation to

different types of CBRN agents. Thus, it is even more important to provide people with information via public information campaigns specifically designed to raise awareness of CBRN related incidents. Communicating about the nature of these risks and providing people with information about actions they can take to reduce their risk will empower people to take appropriate actions and will facilitate public engagement with official advice

²H. Carter, D. Weston, C. Symons, R. Amlot, "Public perceptions of pre-incident information campaign materials for the initial response to a chemical incident: the "Remove, Remove, Remove" campaign, Disaster Prev. Manag. (2019), <https://doi.org/10.1108/DPM-10-2018-0342>





Abu Ali ibn Sino Bukhara State Medical Institute.



Bukhara State University.



Bukhara State University.

during an incident. In order to increase awareness of the general public, in spring 2021, the Head of the Secretariat, Mr. Bakhtior Gulyamov, jointly with the personnel of the Regional Secretariat for Central Asia had visited several cities of Uzbekistan – Nukus, Urgench and Bukhara – with trainings on CBRN risks. These trainings, designed by Dr. Lela Bakanidze, OSA expert, comprised of a series of lectures for students of universities. Dr. Lela Bakanidze, OSA expert, and Ms. Iryna Iarema, former CBRN CoE Regional Coordinator for Central Asia, delivered trainings for Karakalpakstan State University (two separate trainings for European faculty, and for students of Uzbek faculty, where the interpreter from Russian to Uzbek language was involved), Urgench State University, Bukhara State University and Bukhara State Medical Institute. Totally more than 500 students, young specialists and faculty members were trained. The trainings covered the following topics: CBRN threats; potential consequences of CBRN incidents; ways in which CBRN agents may be transmitted; actions that people can take to protect themselves and others during a CBRN incident; efficacy of protective measures that people can take to protect themselves and others during CBRN incidents and the importance of taking such actions. The students were also presented with information on CBRN educational programmes and summer schools worldwide, including UNICRI's Master of Laws (LL.M.) in Transnational Crime and Justice. It must be mentioned that for these regions of Uzbekistan topics of CBRN safety and security were quite new, and all participants showed great interest in CBRN topics.

Further, the EU CBRN CoE Regional Secretariat for Central Asia had extensive meetings with faculty members of Karakalpakstan State University, Urgench State University, Bukhara State University and Bukhara State Medical Institute to discuss potential areas of cooperation, including support



CA REGION



Mobile labs provided to Uzbekistan to support diagnostics of pathogens in remote regions.
Credits: Project 53



Mobile labs provided to Uzbekistan to support diagnostics of pathogens in remote regions.



COVID19 diagnostics training of Kyrgyz laboratory specialist 2020/2021.

and enabling environment required to introduce the course on CBRN safety/security into the curricula of higher education institutions.

P53 example of real-life benefits of EU CBRN CoE Projects during the pandemic

by the International Science and Technology Center

The aim of the EU CBRN CoE Initiative is to support partnering countries in enhancing their capabilities and capacities to prepare for, address and mitigate the risks and consequences of CBRN incidents, whether they are natural, accidental or intentional. Project 53, implemented by the International Science and Technology Center, is a concrete example of how the CoE initiative has supported in a timely and effective manner the preparedness and management of COVID pandemics.



COVID19 biosafety training of medical personnel in Georgia in 2021.

Originally, P53 started at the end of 2015, with the primary aim to strengthen national legal frameworks of participating countries, and to provide specialised training on biosafety and biosecurity in Central Asian (CA) countries. Under the original scope of the project, national legislative frameworks were assessed with regards to biosafety and biosecurity and recommendations were made to





Biosafety/security train-the-trainer workshops conducted in 2017.

improve said legislative frameworks, as well as, regional coordination.

However, more importantly with respect to the current pandemic, under P53 biosafety/security training needs were identified, and consequently some of those were addressed. As such, 88 biosafety/security trainers from the 7 partnering countries were trained by a European consortium (SCJS – Sustainable Criminal Justice Solutions, PHE – Public Health England, RIVM - Rijksinstituut voor Volksgezondheid en Milieu, and VERTIC – Verification, Research, Training and Information Centre) in 2017, and these newly-trained trainers then were supported by the project to conduct over 60 training workshops activities (during 2018-2019) on basic biosafety/security issues, reaching more than 1800 specialists (medical, laboratory, veterinary, policy, border guards, customs control). Additionally, biosafety equipment was provided to Partner Countries, which included biosafety cabinets, isolation equipment, diagnostic equipment (PCR, ELISA, genome sequencing), and personal protection equipment (PPE).

The European consortium provided more specific, specialised training on molecular diagnostics of pathogens and biosafety cabinet maintenance training. The newly trained national experts were supported by the project to conduct

training workshops (7) in these technical areas within country and the region (reaching over 70 experts).

Additionally, the project in cooperation with the Biosafety Association of Central Asia and the Caucasus (BACAC) organised an inter-regional conference in March 2019, with participation of over 170 experts from the CA and South-East and Eastern European (SEEE) regions and international experts, to support greater regional cooperation on biosafety/security issues. In 2019, the project was further extended to provide Uzbekistan with Technical support by IMB – Bundeswehr Institute of Microbiology and two mobile disease surveillance labs to enable Uzbek specialists to provide diagnostics support for outbreaks in remote regions or perform epidemiological research.

Due to the previous activities under Project 53, and it's ongoing activities in 2020, when the pandemic broke out there was a cadre of experts in Central Asia that recently had been trained to provide basic biosafety training to a diverse set of specialists, but also in diagnostics of a viral infection, and trained in proper maintenance of diagnostic equipment, all key capabilities and capacities in responding to this new pandemic.

Additionally, in response to the pandemic, the European Commission was

“P53 highlights how the EU CBRN CoE is supporting and enhancing national capabilities and capacities in Partner Countries to mitigate the consequences of an CBRN incident”

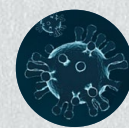
instructed to channel existing funding to support Partner Countries in their respective response to the pandemic. This resulted in P53 receiving additional funding of 2 million EUR to support CA and SEEE Partner Countries in their response to the COVID19 crisis, such as; provision of related supplies (either equipment or PPE supplies), related training, and organisation of an inter-regional conference on the 'Lessons Learned of the COVID19 Pandemic'.

Even before this additional funding was provided to P53, Partner Countries expressed their gratitude to the EU for

PROJECT 53

How the EU CBRN CoE is supporting and enhancing national capabilities and capacities in Partner Countries:

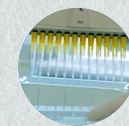
The project supported the trainers that were trained under the previous phase of the project to conduct training workshops either in-person or online for specialists dealing with consequences of the COVID19 pandemic. As well as, regional training workshops are being implemented by EU and international consortia:



1 COVID-related biosafety train-the-trainer for law enforcement/emergency response personnel/border guards/custom control officers (co-funded by P53);

2

Sanitary control and risk assessment training for medical facilities and laboratories (co-funded by P53);



3 Quality management of Diagnostics (funded by P53).





Training conducted by newly-trained biosafety trainers for their respective countries 2018-2019 (Mongolia).

providing the equipment and training under the early phase of the project, as it had greatly was helping them to address the outbreak of the pandemic in their countries. Based on the extra funding, additional COVID19 specific equipment and supplies, with a value of close to 1 million euro, has been provided to the Partner Countries under P53. This includes extraction and diagnostics kits and equipment, disinfection equipment, and PPE. P53 highlights how the EU CBRN CoE is supporting and enhancing national capabilities and capacities in Partner Countries to mitigate the consequences of an CBRN incident.

Moreover, the project supported the trainers that were trained under previous phase of the project (To date more than 150 workshops were conducted reaching more than 1800 specialists) to conduct training workshops either

in-person or online for specialists dealing with consequences of COVID19 pandemic. As well as, regional training workshops are being implemented by EU and international consortia:

- COVID-related biosafety train-the-trainer for law enforcement (Technical support by “TBL International) – Thin Blue Line International”/emergency response personnel/border guards/custom control officers (co-funded by P53) (Technical support by “IQLS - Integrated Quality Laboratory Services”);
- Sanitary control and risk assessment training for medical facilities and laboratories (co-funded by P53) (Technical support by “Fondazione FORMIT and the ASST Fatebenefratelli SACCO”);
- Quality management of Diagnostics (funded by P53).

Tentatively, an inter-regional EU CBRN CoE – BACAC conference “ is planned for 3-7 October 2022, Tbilisi, Georgia, supported by P53 as well as funding from other international donor parties, to discuss the lessons learned from this pandemic, such as from a biosafety, legislative, training, medical perspective in order to use these lessons to be better prepared for the next pandemic.

In summary, P53 highlights how the EU CBRN CoE Initiative is supporting and enhancing national capabilities and capacities in Partner Countries to mitigate the consequences of an CBRN incident, in this case COVID-19 pandemic. And although the Initiative is mostly focused on preparatory/anticipatory interventions, P53 showcases that the Initiative is also able to support the response to an ongoing incident and take advantage of the skills, frameworks and networks attained or supported under previous projects and activities.

Global Laboratory Leadership Programme established for first time in Central Asia

by Dr. Joanna Zwetyenga

To lead efforts in the development and direction of capable laboratory systems, laboratory leaders require meaningful education and training in leadership and management skills. Six leading organizations have partnered to develop the Global Laboratory Leadership Programme (GLLP), and WHO Regional Office for Europe decided to contribute to its implementation in order to identify and nurture potential future laboratory leaders and managers for Kazakhstan. The GLLP programme follows the principles of the One Health approach which combines Human, Animal and Environmental sectors communicating and working together to achieve better public health outcomes.

When initial GLLP in-country validation in Kazakhstan started in May 2021, it was already implemented in some other countries, but this represented



a significant first for Central Asia, as was the choice of the modules which were also to be piloted for the first time. Phase 1 of GLLP implementation in Kazakhstan was composed of two modules: Quality Management System (QMS) and Biosafety & Biosecurity, which are particularly needed to contribute to the efforts in the response to the COVID 19 outbreak. This first phase was funded by the EU CBRN CoE initiative.

In April 2021, 5 Kazakhstan national experts were selected as facilitators to train and mentor 15 potential laboratory managers who were chosen in May 2021 from the veterinary, public health, and clinical sectors. Working alongside and supported by the WHO, facilitators had prime responsibility for preparing materials in order to train those 15 participants with specific modules on Quality Management Systems (QMS) and Biosafety & Biosecurity. The participants were also given 6 months to research and prepare individual theses on their chosen, relevant topics which they presented and defended at a meeting on 25-26 November in Almaty, Kazakhstan – to a judging panel made up of facilitators,

“ The GLLP will create a new, sustainable generation of laboratory leaders and managers not only in Kazakhstan but also in other countries where strong interest is being expressed. ”

WHO and CDC experts. The GLLP will create a new, sustainable generation of laboratory leaders and managers not only in Kazakhstan but also in other countries where strong interest is being expressed.” Participants spoke over a busy and varied 2-day agenda on a range of subjects including Quality management, Biosafety/Biosecurity, notably in the context of the COVID-19 outbreak response. At the end of each day, presentations were judged by an open

discussion and analysis of the scores awarded for each presentation. Scores were based not only on quality of content but also presentation style and technique with an overall exceptionally high rating. 3 of the 15 highest scoring GLLP participants will now be selected to be promoted at future WHO conferences and for potential individual publication.

At the end of day 2, participants were presented with a GLLP certificate as well as a national registered certificate which also counts towards continuous education/professional development. The Almaty meeting represented successful completion of Phase 1 of GLLP implementation in Kazakhstan. An evaluation of Phase 1 by participants and facilitators was extremely positive and also included recommendations on how to improve future modules.

The GLLP will create a new, sustainable generation of laboratory leaders and managers not only in Kazakhstan but also in other countries where strong interest in the programme is being expressed.



Welcoming speech by Yuri Skaskevitch, Attaché to the EU Delegation.



Dr. Joanna Zwetyenga, Lab Team Lead for Incident Management.



Kairat Tabynov presents his 'Review of current requirements for the use of PPE in the context of COVID-19 in highly secured laboratories'.



CA REGION

Highlights of P87: Preparedness and Response for Mass Gatherings and other Health Threats in Central Asia (PRECA)

By Andrew Proudlove and Nargizakhon Usmanova

“Mass gatherings are events characterized by the concentration of people at a specific location for a specific purpose over a set period of time that have the potential to strain the planning and response resources of the host country or community” (WHO, 2021). Key planning recommendations for mass gatherings in the context of COVID-19 Interim guidance).

The range of types of mass gatherings is wide, from sports, music, entertainment, business or religious events, to large conferences and meetings, associated with large participation, multiple venues, international travel, prolonged duration and high visibility. Mass gatherings can have real benefits.

However, in the context of the COVID-19 pandemic, mass gatherings can be associated with increased risk of transmission of COVID-19; in addition, they may stretch and strain the planning and response resources and be associated with disruptive impacts on health services. The Preparedness

and Response for Mass Gatherings and other Health Threats in Central Asia (P87-PRECA), that kicked off its implementation in 2021, presents a series of activities that will strengthen and empower health preparedness and response in the region, to deal with mass gatherings. The project, developed in a joint and coordinated manner, is financed by European Union within the framework of its CBRN Risk Mitigation Centre of Excellence Initiative, and embraces 6 Partner Countries of Central Asia region, namely, Kazakhstan, Kyrgyzstan, Mongolia, Pakistan, Tajikistan and Uzbekistan. It is implemented by International Science and Technology Centre (ISTC).

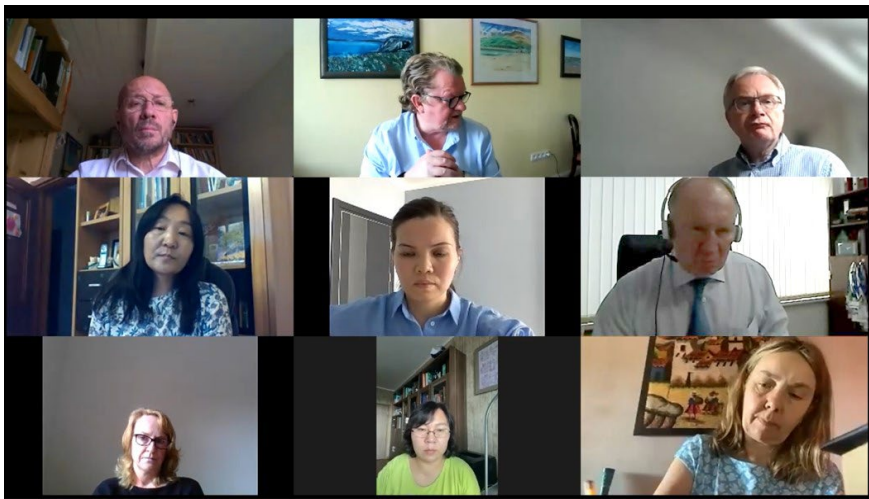
- More specifically, P87 works towards:
- a) improving Infection Prevention and Control (IPC) at mass gatherings by improving the safety of food and water through food hygiene training.
 - b) guarding against chemical threats by developing Poison Information Centres.
 - c) ensuring that Public Health Command, Control and Communication (C3) systems provide rapid, regular, and transparent communications.
 - d) ensuring that Mass Gatherings' stakeholders are properly resourced.

The project envisages development and delivery of a series of training

programs, workshops and exercises to test and improve capabilities of stakeholders in participating countries and will implement regional activities to strengthen health preparedness and response networks within Central Asia.

At its onset in 2021, COVID-19 has prevented travel to the region and caused postponement of training events. Yet, along with initial kick-off meetings for the whole region, as well as bilateral meetings with each participating country team, there are some notable achievements of the project, such as development of Train the Trainer course material for each Work Package, and rapid development and subsequent delivery of a series of on-line webinars. The project has managed to bring on board WHO and World Bank's International Finance Corporation's (IFC) Food Safety Advisory Program as observers to the project implementation and agreed on sharing of information resources. The project has liaised with UK's TOXBASE (Poison Information Centers' chemical database) and ensured that access to this database is granted to public health professionals in Partner Countries.

In 2022, the project plans to deliver Train the Trainer course for over 100 participants from all participating countries, that will be followed by national training events mentored by Consortium Experts. The Regional Working Groups for each work package will be set up to further assess needs in equipment and will facilitate development of related SOPs. Further, national and regional training programs, workshops, seminars and exercises will be held to develop and strengthen health preparedness and response networks. In 2022, the project will also focus on development of a basic system of fast information exchange during a mass gathering event or crisis, and will facilitate country agreements for mutual support. ■



P87's initial consultation meeting with Mongolia.





EASTERN AND CENTRAL AFRICA

By ECA Regional Secretariat and Dr. Rey Chad Abdool



Overview of plenary during the ECA Regional Secretariat Official Inauguration in Nairobi, Kenya.

ECA Regional Secretariat Official Inauguration

by ECA Regional Secretariat

After joining the EU CBRN CoE, the Government of Kenya had generously offered to host the Regional Secretariat for the Eastern and Central Africa (ECA) region. Soon, office space was already provided informally and a Head of Secretariat (HoS) designated for the benefit of the region. On 9 November 2021, the Kenya Nuclear Regulatory Authority (KNRA) and UNICRI signed a Memorandum of Understanding (MoU) describing the hosting of the Regional Secretariat within the new KNRA Headquarters, and thereby formalising this long-standing partnership.

It was decided that the Inauguration event would take place shortly after,

on 2 December 2021, to maximise on the potential visibility and level of participation. The year 2022 is an election year in Kenya, when the focus historically shifts to other priorities at the higher levels of government. In addition, the Christmas period was approaching, so the first week of December was the most logical time for the event.

The space that is allocated for the Regional Secretariat office is within the brand new KNRA Headquarters in the KASNEB Towers in Nairobi. With the approaching inauguration of the Regional Secretariat, the pressure was also on the KNRA to inaugurate its new offices in the remaining time. The Head of Secretariat, Mr. Joseph Maina, also being the Director General of the KNRA, decided that both offices would best be inaugurated during the same event.

Inauguration day: a festive showcase of CBRN success stories

In a race against the clock, all the necessary preparations were made, invitations sent and visibility materials prepared. The main event hall of the KASNEB Towers in Nairobi, where the KNRA and Regional Secretariat are located on the 9th floor, was transformed into a festive showcase of the different elements of the EU CBRN CoE.

The National Focal Points (NFP) represented the network in the region, supported by the ECA regional factsheet and Partner Countries posters. The CBRN National Action Plan (NAP) posters highlighted the important support CoE offers to Partner Countries in developing a strategy for mitigating CBRN risks. The posters highlighting all





Group photo during the ECA Regional Secretariat Official Inauguration in Nairobi, Kenya.

the projects of CoE (kindly developed by JRC), together with the success stories presented some of the tangible results of the collaboration.

The KNRA commissioned a two-page supplement in one of the national newspapers on the day of the inauguration and organised a televised interview, to inform the public about CBRN CoE and the Regional Secretariat. The National Disaster Management Unit (NDMU) of Kenya submitted a video summary of a CBRN exercise they conducted. UNICRI provided short videos on the MoU signing ceremony and interviews with NFPs. Altogether a very concentrated serving of excellent information during the morning of the inauguration.

The EU was represented during the

Inauguration by Ms. Henriette Geiger, who recently moved from her position at DG International Partnerships (INTPA) where she oversaw the whole CBRN CoE Initiative, to become Head of Delegation in Kenya. Her passionate and convincing speech on her support for the concept of CBRN CoE and our partners in the network was very well received by the participants. The Regional Secretariat is preparing to open its doors to national and regional thematic discussions in the near future.

For the Government of Kenya, representatives from the Ministry of Interior and Ministry of Health also reiterated their support to the CBRN CoE Initiative. The Head of Secretariat, CBRN National Focal Point of Kenya, Mr. Ali Gakweli, and the Chairman of the KNRA, Mr. Erastus Gatebe, provided their views

“ The Regional Secretariat is preparing to open its doors to national and regional thematic discussions in the near future.” ”

on the way forward for the Regional Secretariat and the role of Kenya in the CBRN CoE Initiative. The NFP of Kenya also provided a summary of the key elements of the finalised draft CBRN NAP for Kenya that will be submitted for formal adoption. Once adopted this would be another success story for the ECA region.



After the ribbon-cutting, the participants lingered with a strong interest in the informational posters. Subsequently, there were lively conversations between the NFPs and other participants during the coffee break. Altogether, the event was extremely successful in showcasing EU CBRN CoE and celebrating the important contributions of the Government of Kenya and the KNRA. Now, the Regional Secretariat is preparing to open its doors to national and regional thematic discussions in the near future.



Overview of plenary during the ECA Regional Secretariat Official Inauguration in Nairobi, Kenya.

ECA 15th Regional Round Table Meeting in Nairobi

by ECA Regional Secretariat

After two years of virtual and remote contact, the National Focal Points (NFPs) for the Eastern and Central Africa (ECA) region finally had the opportunity to meet each other again in person. The 15th Regional Round Table Meeting (RTM) for the region took place in Nairobi from 30 November to 3 December 2021 where hands were shook again, stories exchanged, experiences recounted, drinks shared and our friendships strengthened.



Poster presentation during the 15th Regional Round Table Meeting in Nairobi, Kenya.

The NFPs prepared presentations on the following four questions: 1) are there examples of recent CBRN-related incidents that affected your country? 2) What is the status of the (draft) NAP and next steps planned? 3) Give an overview of the National CBRN Response Plans that exist. 4) What does your current CBRN National Team look like?

To make the meeting more dynamic, the presentations were prepared in poster format this time and the participants moved through the room from poster to poster as each NFP presented. Additional information and opinions were captured from the participants using quick-polls, where each NFP can vote on specific responses to certain statements or questions. This also stimulated lively discussions amongst the NFPs.

The thematic sessions included a presentation by JRC on the remote support on NAQ/NAP workshops and a presentation by the On-Site technical Assistance (OSA) expert on the current status of the draft terms of reference for the upcoming bio project for the region. There were also introductory presentations by invited speakers from three different Africa Union bodies and a presentation by the 1540 Africa Coordinator of United Nations Office for Disarmament Affairs (UNODA). These presentations led to discussions and ideas for future follow-up.

The highlight of the Round Table Meeting, however, was the Inauguration Ceremony for the Regional Secretariat

office for the ECA region. Following the signing of a Memorandum of Understanding (MoU) between the hosting institution, the Kenya Nuclear Regulatory Authority (KNRA), and UNICRI on 9 November 2021, the official inauguration was planned on 2 December 2021. The Regional Secretariat office is hosted within the new KNRA Headquarters offices.

During the Inauguration Ceremony both offices were formally inaugurated in the presence of the NFPs and 60 additional guests from the Government of Kenya, EU, UN, Africa Union and the diplomatic community. It was important that the NFPs could be part of this event and at the same time the other invitees



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could recognise the regional dimension and importance of the EU CBRN CoE Initiative.

The last day of the meeting was dedicated to the two ongoing projects in the ECA region on Support on Nuclear Security (P60), and Falsified and Substandard Medicines (MEDISAFE, P66). Both project Team Leaders joined the meeting, which was appreciated by the participants. Both projects are progressing well and the Team Leaders discussed with the NFPs how to finalise their project activities in the coming period.

The Kenya Medical Research Institute (KEMRI), member of the CBRN National Team of Kenya, kindly offered to provide the PCR tests that were required for the return travel of the NFPs. This is a fine example of how partners in our CoE network can support each other, and the Regional Secretariat greatly appreciates the support given by KEMRI.

Although virtual meetings have their merits (and are surely here to stay), participating in this long awaited in-person meeting with the friends and colleagues from the region reminded us that the relationships and trust that we have built together, and that are fundamental to the success of the EU CBRN CoE, require personal contact to maintain. Everyone agreed that coming together after such a long time really boosted the morale.

“This long awaited in-person meeting reminded us that the relationships and trust that we have built together require personal contact to maintain.”

Combating illicit trafficking and enhancing the safety of medicines in ECA region: MEDISAFE's progress

by Dr. Rey Chad Abdool

The First On Line Training on Definition, Identification and Control of Substandard and Falsified Medicines and Health Products (SFMHP) were conducted in 5 MEDISAFE Partner Countries in 2021: namely, in Malawi (4-5 March), Zambia (15-16 April), Uganda (20-21 May), Ghana (17-18 June) and Democratic Republic of Congo (22-23 September).

These On Line Technical Seminars brought together an average of 25 participants from each partner country and welcomed ministries of Health, National Medicines Regulatory Authorities, CBRN staff, NGOs and the private sector.

In order to support the efforts of Partner Countries to address the COVID-19 pandemic, a new module on Supply Chain Security (SCS) of pharmaceuticals was developed. An Assessment Tool is under-development to make a comprehensive evaluation of the robustness of Partner Countries' SCS system and circuit, to identify weaknesses and gaps and formulate recommendations to address them. It is expected that the tool will be piloted in Malawi and the Democratic Republic of Congo in April 2022.

In addition, 6 On Line Technical Seminars for the legal profession on Best Legislative Practices on Substandard and Falsified Medicines were conducted in 2021 in Ethiopia (25-26 February), Burundi (22-23 March), Malawi (8-9 April), Ghana (6-7 June), Uganda (24-25 June), Zambia (20-21 July) and Democratic Republic of Congo (23-24 September).

This activity brought together lawyers from Ministry of Justice, the Attorney General's Office, the Judiciary, Ministry

of Health, Police, Customs and in some countries the Interpol National Control Bureau. The training included an in-depth review and analysis of the countries legislation on SFM against the backdrop of the Council of Europe Medicrime Convention, identifying gaps and proposing recommendations to either adopt the Convention, update the current legislation or develop a new one. This first round of training in all 11 Partner Countries was completed by an In Person Training in Dar es Salaam on 25-26 January 2022.

It is to be noted that 1.5 hour of each training session was devoted to draft an Action Plan to tackle SFMHP with a focus on the MEDISAFE Work Packages, namely Awareness Raising, Legal Framework, Capacity Building, Inter-Agency Collaboration, International Cooperation and Pharmaceutical Supply Chain Security. 10 Partner Countries have refined their Action Plan and Tanzania is expected to follow in 2022.

10 of the 11 Medisafe Partner Countries have developed the most comprehensive situational assessment through a SFMHP Country Factsheet in the legal, pharmaceutical and law enforcement sectors. Tanzania is expected to carry out this exercise in 2022.

8 Partner Countries have conducted an awareness raising event on SFMHP for an average of 30 Women Civil Society Organizations in each country to educate women about the dangers of using such medicines and for them to disseminate this information and knowledge obtained with their families, their membership and the community at large to protect them. The 3 remaining events of the first round of this activity were planned in 2022 for Tanzania and Rwanda (both on 27 January 2022) and Zambia (15 February 2022).

Medisafe held an in person meeting with National Focal Points in Nairobi in December 2022 back-to-back with a



major event. It was a unique opportunity to meet 9 NFPs and their Delegated Members, and to establish a personal relationship with them. A detailed presentation of the project was made, its report was presented to them and the 2022-2023 work plan presented and discussed. Their inputs were taken on board.

A MEDISAFE Communication Strategy is currently under gestation. A survey with the public, health professionals and law enforcement personnel was foreseen in a sample of Partner Countries in February 2022 to inform the development of this strategy.

An institutional video of the Medisafe project will be produced in the first quarter of 2022, both in French and English-speaking countries (Kenya and DRC) in order to highlight the impact of the project over the years and to show the testimony of beneficiaries and members of the international and regional team.

MEDISAFE successfully negotiated with INTERPOL International Intellectual Property Crime Investigators College for Partner Countries to benefit from its On Line training. 7 countries have enrolled and 2 more were to join in January 2022. A Law Enforcement (LE) training

curriculum consisting of 11 specialized modules is under development. The first LE training to address organized crime related to the identification and control of SFMHP was planned in Mombasa, Kenya on 14-18 February 2022. 2 more sub-regional training, together with regional partners, are planned in 2022.

Medisafe has put in place all the organizational, institutional and partnership structures in all the Partner Countries and has made excellent progress to achieve its objectives and fulfil its mission with the help of its international consortium and partners. ▣



7 - MEDISAFE NFP Meeting in Nairobi, Kenya, 03/12/2021.



GULF COOPERATION COUNCIL COUNTRIES

By Peter Clevestig and Adil Radoini

New projects and activities to address chemical and biological risks in the GCC Region

by Peter Clevestig, Adil Radoini

The recent activities of the EU CBRN CoE Regional Secretariat for the Gulf Cooperation Council (GCC) region have focused on gaining momentum for new projects for the coming 3 years that are targeted to address chemical (C) and biological (B) risks by leveraging the experiences gained during the management of the COVID-19 pandemic.

Building upon the Project 82, which aimed to enhance medical preparedness towards CBRN mass casualty events, several project ideas have been put forward and discussed with the GCC Partner Countries during two consecutive regional round-table meetings, held on 14 June and 1 September 2021. The proposed projects aim to expand C and B activities in the region to address multiple aspects of risk mitigation while also being interconnected, such as the assessing and

strengthening of laboratory capacities for new and emerging diseases in the region and, simultaneously, the enhancing of biosafety and biosecurity practices among professionals.

Activities related to chemical risk reduction involve a holistic and multi sectorial approach to sound management of hazardous chemicals. In 2022, the Regional secretariat will propose discussions through bilateral meetings with national teams to identify new project ideas fostering interregional cooperation among Gulf countries.

Two important virtual training sessions were held during 2021 to enhance regional capacities in the chemical and biological fields. Through the support of ENCO, a four-day virtual course was held on Radiological Safety & Security between 17 – 20 May, with 35 attendees from the GCC region. Another ENCO virtual training course was held between 23 - 24 June on the subject of chemical substance risks and their minimization, which was also

attended by representatives of the GCC Partner Countries.

On 10 - 12 October, the Regional Secretariat for the GCC participated in the INTERPOL Biosecurity Initiative Enhancing Biological Incident Prevention tabletop exercise in Abu Dhabi, United Arab Emirates. The three-day meeting gathered all key government entities to the exercise, which entailed five scenarios with increasing complexity in the coordination and management of, as well as in the first response to, an (accidental or intentional) biological treat. The meeting also aimed at enhancing cooperation in the region with key international organizations engaged in law enforcement and CBRN risk reduction.

“The CBRN Hub has started establishing a regional and international pool of experts in CBRN risk management to enhance the availability of key competencies”

The CBRN Hub, in partnership with the GCC Regional Secretariat, has started establishing a regional and international pool of experts in CBRN risk management to enhance the availability of key competencies in order to address related needs in the region. Building on the partnership with the European Commission, the JRC and UNICRI, as well as international organizations, the expert pool will aim to support national and/or regional activities, provide advice for government entities on request, and further complement the training activities of the CBRN Hub. □



Regional round table meeting held virtually in June 2021. Credits: GCC Regional Secretariat.



MIDDLE EAST

By Adil Radoini, Alice Rena, Günter Povoden, Katy Carroll and BAFA



CBRN Counter terrorism field exercise in Lebanon.

Improving first response to a CBRN terrorist threat: Lebanon's ARZ 2021 field exercise

by Adil Radoini, Alice Rena, Günter Povoden

Despite the challenges faced by Lebanon over the last years – including the COVID-19 pandemic and the tragic Port of Beirut explosions in August 2020, in which more than 200 people were killed and many more wounded - the country is investing resources and adopting a systematic approach to tackle chemical, biological, radiological and nuclear (CBRN) threats. The explosion in Beirut triggered numerous CBRN related missions in order to secure hazardous materials and to assess the damage of CBRN related infrastructure. First responders and specialized units gained a lot of experience and many of them were also involved in the ARZ 2021 exercise.

In the last decade, Lebanon's commitment and reliability has enabled the country to attract the interest of multiple external partners to support Lebanese in building national capabilities in the field of CBRN risk mitigation. These partners include the European Union, the United Nations, Italy, France, Canada, the United States, as well as many other national and international organizations. Through Lebanon's national commitment and the support of international partnerships, an impressive number of projects were implemented under the coordination of Dr Bilal Nsouli, appointed ten years ago as the first official CBRN National Coordinator for Lebanon and National Focal Point for the European Union (EU) CBRN Centres of Excellence (CoE) Initiative.



VIP extraction.



Terror laboratory simulating chemical warfare agent production.



Illicit storage site.



Beirut Fire Fighters managing the chemical release.



Arrested terrorist before decontamination.



Beirut Fire Fighters managing the chemical release.

During such a short period, the country has been able to reach significant achievements. Under the leadership of Dr Nsouli, Lebanon established a functioning inter-ministerial CBRN National Team, composed of all relevant agencies in charge of building a comprehensive CBRN policy to detect, prevent and respond to CBRN risks. In 2016, the CBRN National Team of

Lebanon produced a National Action Plan (NAP), a strategic document that defines the priority objectives in the field of CBRN Risk Mitigation, that was endorsed by the Presidency of Council of Ministers as the main national policy instrument in the field of CBRN. Due to the progress achieved in the last years, the National CBRN Action Plan will be updated in 2022, based on the gained

experiences and developed CBRN capacities.

CBRN Terrorism was identified as a national priority for Lebanon, as well as a Field Exercise to test the capacities of Lebanon to tackle CBRN threats, which was one of the activities foreseen in the NAP. In this regard, after few postponements due to the pandemic, a



4-day inter-agency Chemical, Biological, Radiological and Nuclear Field Exercise "ARZ 2021" was held in Beirut, Lebanon, on 6-9 December 2021 under the patronage of the President of the Council of Ministers of Lebanon.

Two full-day scenarios focused on countering CBRN terrorism

ARZ 2021's aim was to test the capacities of relevant stakeholders and to promote interagency coordination and cooperation to prevent, detect and counter CBRN risks. The format consisted of two full-days-scenarios (7 and 8 December) in addition to a preparatory meeting with a safety and security briefing for all participants on 6 December, and a closing ceremony held on 9 December. The scenarios were developed and implemented to simulate real case situations to test the decision-making process, the coordination and the capabilities of all the actors involved in the first response during the different phases of a CBRN terrorism emergency. The first scenario simulated an incident in an illicit hazardous material storage and terrorist laboratory where chemical and biological warfare agents, dirty bombs and explosive devices were produced. Preventing CBRN terror attacks requires CBRN awareness and disrupting terrorists' activities at an early stage. This was simulated by providing CBRN intelligence to connect the dots. A major part of the exercise was to arrest

terrorists before the planned attack and detect, identify and secure CBRN materials and precursors for chemical warfare agents, toxins and explosives in illicit laboratories and storage sites.

ARZ takes one step further in-teragency cooperation

ARZ 2021 was funded by the Directorate General Service for Foreign Policy Instruments (FPI) of the European Commission within the framework of the EU CBRN CoE Initiative. Under the guidance of the EU CBRN CoE National Focal Point of Lebanon, the exercise was co-organized by the United Nations Interregional Crime and Justice Research Institute (UNICRI) in collaboration with the International Science and Technology Center (ISTC), Fondazione SAFE and the On-Site Assistance Expert of the Middle East Regional Secretariat.

Taking into consideration the complexity of such incidents and the CBRN specific capabilities and expertise required to effectively respond to such threats, the national stakeholders involved in the exercise represented different sectors, institutions and agencies, including the Beirut Fire Fighters, the Civil Defence, the Internal Security Forces including the Governmental Guard, the Lebanese Atomic Energy Commission, the Lebanese

Armed Forces and the Red Cross.

In the planning phase, more than 20 meetings, both virtually and in person were necessary to coordinate and synchronize the efforts and to support the preparation of all necessary documents; for instance, the main incident/event list, a guide for the role players to make the simulations as realistic as possible, an exercise manual for the participants, evaluation sheets and an exercise factsheet.

The overall development and implementation of the field exercise was evaluated by a team of selected evaluators representing relevant organizations and institutions operating in the field of CBRN risk mitigation, such as (in alphabetical order): French Police, INTERPOL, Italian Army, NATO School, OPCW and SCK CEN. The high-level expertise and the supportive attitude of the evaluators team, have been fundamental to translate the impressive work done by all the stakeholders involved in the exercise into concrete indications for future work, improvement and cooperation.

Representatives from international organizations and countries attended as observers, namely from the European Commission, Canada, the United States, the League of Arab States and the United Nations Department of Safety and Security (UNSS).

ARZ 2021 is a great example of how the combination of national commitment and international cooperation can be effective if all the stakeholders and partners join forces towards achieving a common goal which, in this case, was to improve the capacities of Lebanese stakeholders to tackle the CBRN terrorism threat. It also showed that the effort of the EU CBRN Centres of Excellence Initiative in Lebanon was successful in promoting the creation of an institutional setting that paved the way to build technical capacities and reinforced the interagency coordination and cooperation.



First responder from the ARZ field exercise



Towards a sustainable CBRN risk mitigation policy in Lebanon

By Adil Radoini and Katy Carroll
– Featured on F3 Magazine

An interview with Dr Bilal Nsouli, the first CBRN National Coordinator, on his perspective towards a holistic approach in the area of CBRN governance



Ten years ago, before Dr. Bilal Nsouli assumed his post as the first official Chemical, Biological, Radiological and Nuclear (CBRN) National Coordinator for Lebanon and the National Focal Point for the European Union (EU) CBRN Centres of Excellence (CoE) Initiative, little

National Focal Point. At that time, Dr Bilal was the director of the Lebanese Atomic Energy Commission, an institute working under the aegis of the National Council of Research. With the Prime Minister's support, Dr. Bilal assembled a National Team, composed of the army, interior security forces, general security, state security, civil defence forces, and of course the Lebanese Atomic Energy Commission (LAEC). There was also a clause in the decision of the Prime Minister to allow this structure to be assisted by any of the ministries if needed, meaning that Dr. Bilal was able to call upon technical ministers from the Ministries of Foreign Affairs, Health, Environment, Agriculture, Industry, Economy and Industry as well as members of the academia from different universities.

In this extensive interview with F3 –

to see what Dr. Bilal and the CBRN National Team have achieved in such a short period of time. Despite the challenges of the last years – including the tragic Port of Beirut explosions in August 2020, which killed more than 200 people and left many more wounded – Lebanon is investing resources and adopting a systematic approach to tackle CBRN risks.

Thanks to its commitment and reliability, Lebanon has also managed to attract the interest of several external partners, including the European Union, the United Nations, Canada, the United States, France and many other national and international organizations, to build capabilities in the field of CBRN risk mitigation, resulting in an impressive number of projects coordinated by Dr. Bilal and his CBRN National Team.



Natalie Pauwels, Dr. Bilal Nsouli, Sorin Popa, and Adil Radoini. Credits: European Commission.

“ The first time we heard about CBRN in Lebanon, it was in mid-2008 ”

1. Let's start from the beginning. What did CBRN preparedness look like before the EU CoE Initiative?

We started the effort to join the European Union Centres of Excellence Initiative for CBRN risk mitigation in late 2010 – before 2010 the only time CBRN was used was within another project with a significantly different context.

existed in terms of CBRN risk mitigation policy in the country. In his own words, “this was the first time we started CBRN response, before this no one knew what CBRN meant.”

Back in 2012, the Lebanese Prime Minister took the decision to formalize the process of becoming part of the EU CoE Initiative through Dr. Bilal's appointment as the

Freedom From Fear Magazine, Dr. Bilal recounts that this feat was not an easy task. Not only did he have to deal with government agencies that were working in silos, but he also had to contend with issues of information security, whilst simultaneously attempting to attract external donors.

Even with the support of government's formal mandate, it is indeed impressive

In 2008, we had a project with the European Union – funded by the EU Delegation in Beirut via a financial arrangement with Lebanese Customs in order to set up a system for combatting trafficking of radiological and nuclear materials. The implementer of this project was the International Atomic Energy Agency (IAEA) – as the nuclear

On 4 August 2020, a pair of explosions of a 2,700 tonnes of ammonium nitrate housed at the port of the city of Beirut, the capital of Lebanon, struck the city, killing more than 200 people, wounding more than 6,500 and causing widespread damage.

Source: <https://www.theguardian.com/world/ng-interactive/2020/nov/12/beirut-blast-a-night-of-horror-captured-by-its-victims>





security office at that time – and coordination came from the Programme Management Office of the Presidency of the Council of Ministers.

From this project, we established a follow-up steering committee. It was composed of the Programme Management Office of the Presidency of the Council of Ministers, the European Union, IAEA and the beneficiaries. This project focused on capacity building for combatting the illicit trafficking of radiological and nuclear materials. One of the Work Packages of this project was planning the emergency response to any potential incidence of seizing smuggled radiological or nuclear materials at the Lebanese borders.

We started to discuss this issue only focusing on emergency response. Later on, IAEA and the EU proposed widening the response plan to encompass CBRN response. This was first time we heard about CBRN in Lebanon, it was in mid-2008.

2. What were the main challenges that you encountered during this early phase of the project?

From the beginning the security issue was put on the table: it was difficult to divulgate information that was needed for the gap analysis. At that time, we were very transparent, and we discussed the issue with the different directorates that showed some restriction about divulgating different information. We told them clearly, if we wish to knock the socks off potential donors, we need to show them where we are, what we are doing, what our vision is and what we need from them. We need to show them our seriousness and professionalism. If not, you cannot attract donors.

3. It is certainly impressive that you and your team were able to establish CBRN governance and interagency coordination so rapidly in Lebanon. What do you think is the secret to the country's success?

For CBRN risk mitigation, if you appoint

a National Focal Point (NFP) from a list of given stakeholders, this NFP cannot put the all the stakeholders around the same table; we need a higher political cover. The Prime Minister's Office is at the head, and it means, as NFP, I can work under the umbrella of the Prime Minister's Office, I can make the necessary meetings, by inviting whoever you want. And, you can head a meeting by representing the Prime Minister's Office. If you do not have this capacity, you cannot work properly – if you are not really the guide and if you're not strongly supported by the political system.

“ We need to offer the directories and ministries serious [CBRN] projects where they can see the difference before and after. ”

For example, I was able to send letters of invitation directly to the different ministries and directorates, without going through another structure. If you are able to do this, it means what you're saying is coming directly from the Prime Minister.

The second key of success? We need to offer the directories and ministries serious projects where they can see the difference before and after. Directories and ministries need to follow up and to be involved in activities and dialogue.

4. Aided by the EU CoE Initiative, Lebanon established a comprehensive CBRN National Action Plan (NAP) for the years 2017-2020 that included prevention, preparedness and response to CBRN risks. Now you are planning a workshop to update the NAP next June. Can you give us an insight on how the

priorities of Lebanon in terms of CBRN risk mitigation have changed?

Priorities are something dynamic, it depends on the threat and risk. For example, from the beginning, in 2012-13, our top priority was chemical weapons used by non-state actors (NSAs), because in Syria and our neighbouring countries, there was evidence of this issue. The top priority was how to protect Lebanon and the Lebanese population from any NSAs coming from Syria to Lebanon.

The priority has changed. After the Port of Beirut explosions, the priority is totally different. Now, the priority is: to know where we have dangerous chemicals of security concern; where we have dual-use chemicals; to revisit the regulations governing the licensing process of different practices related to these materials; and to see how to destroy and neutralise disused and dangerous chemicals. These are the top priorities, it's something huge, and part of the update will be centred on that. From this priority, we can extract a lot of activities.

5. Can you tell us more about the lessons learned and the activities relevant to the CBRN risk mitigation policy that were triggered by the Port of Beirut explosions?

First of all, we were surprised by the vulnerability of the system in the Port of Beirut, and we were also surprised by the governance system at the Port. At the Port, we have different directorates who needed to coordinate with each other, and from what we heard after the explosion, it was really surprising.

From our point of view there are two different things: firstly, how do we improve coordination in the CBRN response and, secondly, what do we need to learn? This explosion gave us a strong lesson that we need more coordination between all directorates in Beirut, and this needs to be done through a Memorandum of Understanding (MoU).





We also need a new governance vision in the Port of Beirut: it wasn't a case of someone forgetting to send a notification to another, we need to re-evaluate the whole system of port governance to avoid another explosion somewhere in Lebanon. We need to know how different directorates coordinated with each other: their manner of coordinating didn't work because this explosion happened, those materials had been stored for years in Beirut. This means you have a governance problem.

6. Looking to the future, I would like to ask your opinion regarding hybrid threats in relation to CBRN. We have seen in the news that cyber-threats are also impacting the CBRN world in some countries. What do you think about this threat from the CBRN risk mitigation perspective?

Lebanon has made an effort for the past four years in close cooperation with France to establish a National Committee dealing with cyber security. We have prepared a National Policy and National Action Plan for cyber security for Lebanon, which was endorsed by the Council of Ministers in 2018. This cyber security plan covers chemical industries in Lebanon (as there are no nuclear or sensitive biological facilities in Lebanon).

In the future, cyber security and CBRN will be directly linked through relevant chemical industries and some critical infrastructure dealing with CBRN materials, for example in the storage of radioactive waste, in order to avoid any sabotage or theft of this material by non-state actors.

There is an intersection between CBRN and cyber security, so cyber security needs to take into account the whole spectrum – the financial sector, telecommunications and CBRN.

7. Dr. Bilal, if you could leave us with one message for the international community in terms of CBRN security, what would it be?

In most countries, CBRN is implemented

with the support of donors, not national budgets. I believe that our countries need to be aware of the importance of that issue and we need a part of national budget to be used for strengthening the national capabilities, together with cooperation with international donors. My second message? We need to coordinate all national activities. We need to carry out activities within the endorsed National Action Plan, because, if not, we won't be efficient at all – we will duplicate activities and not make use of the existing resources correctly. We need coordination between donors and stakeholders, and form a multilateral approach to assistance.

Cooperation in export controls of dual-use goods with Middle Eastern Partner Countries under the CBRN Centre of Excellence initiative

By Federal Office of Economics and Export Control of Germany - BAFA

Since 2014, Project 38 of the EU CBRN Centres of Excellence Initiative has been cooperating with the Middle Eastern Partner Countries Iraq, Jordan and Lebanon in the implementation and updating of their national strategic trade control systems. This cooperation has aimed at reinforcing capacities to closely regulate and monitor any cross-border trade in dual-use goods, i.e. items, which may be used for both civil and military purposes; the latter includes chemical, biological, radiological and nuclear weapons and their means of delivery. The comprehensive set of activities organised in the past comprised trainings for licensing and customs officers, as well as legal and administrative counselling or awareness raising measures for industry and academia.

After the outbreak of the COVID-19 pandemic in early 2020 had hampered the implementation of traditional in-person activities, the cooperation was quickly adapted and continued by means of virtual events, such as online workshops.

Focus of the cooperation with Iraq:

Being the most recent partner country, Iraq joined Project 38 at the end of 2019 and, from the very beginning of the cooperation, was very committed to engage with the project. After a first introductory workshop in January 2020 and the subsequent joint elaboration of an action plan, a series of five online workshops was organised between October 2020 and October 2021. The main focus of these workshops was to familiarize Iraqi participants, among others representing the licensing and enforcement sector, with the application of the Iraqi dual-use control list, which is aligned with the consolidated dual-use list applied in all EU member states. Based on practical examples and exercises, participants became familiar with the rating of dual-use goods according to the control list and in consideration of technical parameters stipulated in list entries, as well as technical notes and cross references.

Focus of the cooperation with Jordan:

The cooperation in the area of dual-use trade control between the EU and the Hashemite Kingdom of Jordan already persists for more than a decade, already under predecessor projects to Project 38, and has contributed to the further development of the country's strategic trade control system. Throughout the entire Project 38 project cycle, the focus of cooperation was on amending the strategic trade control legislation, reviewing administrative procedures, enhancing the enforcement capacities (in particular customs) and the engagement with the private sector. In the final project phase, efforts were dedicated to support establishing the necessary capacities to penalise infringements of Jordan's strategic trade control provisions. To this end, a series of three online and hybrid workshops was organised in 2021, which paved the way for an intended comprehensive legal review of Jordan's related penal system and further follow-up activities in 2022.



“ 2022 will be marked also by the deployment of the EU P2P e-learning modules ”

Focus of the cooperation with Lebanon: In Lebanon, the project successfully organised two workshops in order to introduce to a large number of different authorities the importance of dual-use trade controls and the requirements for states stemming from UNSC resolution 1540/2004. This resulted in the agreement on a comprehensive multiannual action plan. However, further implementation of the project has been hampered by a number of different developments in Lebanon,

such as the horrible and devastating explosion in the port of Beirut and the country's subsequent political and economic situation.

Continuation and extension of the EU CBRN CoE's engagement in strategic trade controls under a new project, given that Project 38 ended at the end of 2021, the EU has decided to continue its long-standing cooperation with Middle Eastern Partner Countries through the launch of a new EU P2P project for the Middle East – Project 89 - as of January 2022 for a duration of 30 months. Similarly to Project 38, the implementation of Project 89 has been entrusted to the German Federal Office for Economic Affairs and Export Control (BAFA). This project will continue the well-established cooperation with Iraq, Jordan and Lebanon. In addition, the range of Partner Countries will be extended to the six member states of the Gulf Cooperation Council (Bahrain,

Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates) in partnership with Gulf Cooperation Council Regional Secretariat of the EU CBRN CoE.

This way, the new project shall contribute to the enhancement of national capacities in the control of strategic trade in dual-use goods, as well as foster the regional dialogue and cooperation in this field between all nine Partner Countries of Project 89. This is in particular important, as all the Partner Countries are engaged in viable mutual trade exchange.

For Project 89, as for Project 38, the EU CBRN Centres of Excellence Regional Secretariats in Amman and Abu Dhabi, and the CBRN National Focal Points in Partner Countries, will play a crucial role for the communication and coordination with the national stakeholders. ▣





NORTH AFRICA AND SAHEL

By Anne-Sophie Lequarré and Nicolas Jal



3rd Cohort Graduation Ceremony

Mediterranean and Black Sea Field Epidemiology Training Programme

MediPIET Team



ISABEL NOGUER ALICIA PADRÓN CÉSAR JIMÉNEZ MARIETA IRADIER RODRIGO SARMIENTO MAYTE MANZANERA CONCHA MARTÍN ADELA PAEZ IRO EVLAMPIDOU ANGELIKI LAMBROU JUAN DONADO EVA VALDÉS

Fellows



ROVENA DAJA ARAYIK PAPOYAN ANI MANUKYAN EKATERINE JABIDZE MARIAM PASHALISHVILI MOLKA OSMAN ALINA DRUC RIHAM HASSAM BASSAM SHQIPE KRASHNIQI KOLA SAMIR SAWALHA KHALID KHAROUF DRAGANA STOSOVIC OKSANA ARTEMCHUK OLEKSANDR MATSKOV ENKELA POLLOZHANI



3rd-Cohort-Graduation-Ceremony

Graduation Ceremony of the third Cohort of MediPIET fellows by Anne-Sophie Lequarré

The Field Epidemiology Training Programme (FETP) in the Mediterranean and Black Sea “MediPIET”, a EU CBRN CoE project, hosted the graduation ceremony of its third cohort of fellows on 28 October 2021. The event awarded and congratulated the 15 fellows with all completed assignments under the two-year on-the-job MediPIET training programme. The graduation ceremony also recognized the supervisors, scientific coordinators, hosting institutions and stakeholders involved in the MediPIET programme for the efforts done during these challenging times.

The event was planned to take place face-to-face in Madrid at the end of the project, but unfortunately, due the COVID-19 pandemic and travel restrictions, the ceremony occurred online with a mixed of pre-recorded parts and live moments.

An important part of the event was the award of the Fellowship Certificates. In order to give the needed acknowledgement and visibility at national level, the training sites organized a very short pre-recorded “ceremony in advance” by including at least the fellow(s), supervisor(s) and/or NFP, someone from the MediPIET National Committee, and any other additional authorities that might have been considered by the training site and the EU Delegation. A

video was recorded at each training site and edited by the MediPIET team with the support of the ISCIII IT team and was played during the online graduation ceremony.

Increasing the prevention and control of natural and man-made health threats in the EU neighbourhood

The main objective of the Mediterranean and Black Sea Programme for Intervention Epidemiology Training (MediPIET) is to increase security in the EU neighbourhood for the prevention and control of natural and man-made health threats through a regional training Programme in Intervention Epidemiology. The project aims at consolidating an efficient workforce with the necessary skills to carry out essential public health func-



tions, and tackle national and cross-border challenges posed by communicable diseases.

The project enables an increased exchange of public health knowledge and methodologies between non-EU countries and EU partners. The programme extends over the non-EU countries covered by the EU Enlargement and European Neighbourhood policies: Albania, Algeria, Armenia, Bosnia and Herzegovina, Egypt, Georgia, Jordan, Kosovo, Lebanon, Libya, Moldova, Montenegro, Morocco, Palestine, Serbia, the Republic of North Macedonia, Tunisia, and Ukraine. Israel and Turkey participate in the project with an observer status.

The project had three successive phases, a pilot, P32 (2013-2014) followed by P36 (2014-2018) with two cohorts of fellows trained and the last phase with a third cohort (P74) implemented throughout 2019-2021 by the Instituto de Salud Carlos III (ISCIII), and supported by the Fundación Estatal Salud, Infancia y Bienestar Social (FCSAI).

EU Health Security Initiative and upcoming cohort of MediPIET fellows

The MediPIET successful training programme is included in the EU Health Security Initiative (HSI) led by the European Centre for Disease Prevention and Control (ECDC), with funding from the European Commission's DG NEAR.

The EU HSI covers three pillars: one on epidemic intelligence, risk assessment, preparedness and response; a second on the integration into ECDC systems, knowledge sharing and networking; and the third is the direct follow-up of MediPIET with two additional cohorts of fellows planned and the inclusion of Azerbaijan, Belarus, Turkey and Israel as full partners. The kick-off occurred last June and the fourth cohort started on the job training in summer.

Progressive delivery of equipment for intervention in the transport of dangerous goods and risk mitigation

by Nicolas Jal

The initiating event

In a meeting held in Brussels in May 2017 to discuss chemical, biological and radiological risk mitigation projects, the national focal points (NFPs) of the AAF and NAS regions highlighted the difficulties faced by the Sahel countries to implement existing legislation in the field of transport of dangerous goods (TDG). NFPs pointed out that TDG-related legislation in these Partner Countries was only partially compliant with United Nations or European Union standards, in some cases. In addition, they expressed the need to provide Partner Countries with specialist assistance in the event of an accident of this kind.

Against this background, the EU CBRN CoE launched two new projects with the aim of strengthening first response and risk management capacities related to the TDG in the NAS and AAF regions.

Need for specialised equipment

The first project was the "Provision of specialised equipment to manage transport accidents with dangerous goods aimed for first responders in the AAF and NAS regions" (Project 70).



Fully encapsulated protective suit.

In 2019, the Paul Boyé consortium was selected by the European Union to lead the implementation of this project. P70 includes one week of training sessions on the use of this specialised CBRN equipment for the first responders, as well as a "level 1 maintenance" training of the CBRN equipment delivered in the Partner Countries.

All 15 countries of the two regions involved receive the same equipment for



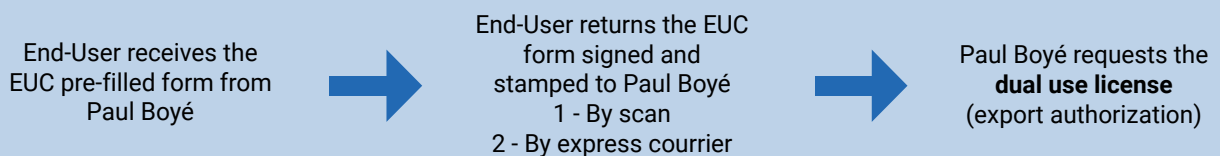
Sénégal-Fire station BNSP.





PAUL BOYE, EQUIPMENT PROCUREMENT FLOW CHART

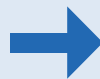
Step1: Authorization (Mandatory step for shipment)



Step2: Shipment preparation

Paul Boyé Technologies advises the end-user by sending the following documents:

- **Attestation of donation**
- **List of equipment**
- **Invoice**
- **Packing list**
- **Dangerous goods form**



End-User contacts the competent authorities (customs office, etc...) to **initiate the procedure to obtain the duty and tax exemption certificate**, using the documents received from Paul Boyé
End-user checks what are the other formalities to accomplish before shipping (dangerous goods, importation procedures...)

Step3: Shipment and Delivery

Once the procedure is initiated and confirmed by end-user:

1. Paul Boyé dispatches the equipment
2. Sends those documents to the end-user (by email):
 - **ETD**
 - **ETA**
 - **Bill of Lading**
 - **Bolloré contact details**



End-user needs to **provide the duty and tax exemption certificate** to Bolloré to organise the customs clearance

- unload goods



End-user remains in daily contact with Bolloré to make sure that all procedures are operating in a timely manner



Equipment being **delivered** to the end-user at final destination

Step4: Training Session

Training session to be organized:

- 1 - Premises designation,
- 2 - List of participants,
- 3 - Official letter of invitation





Presentation leak sealing device. Credits: Franck Havard (Paul Boyé)



Portable decon shower, Cote d'Ivoire.

the use among first responders, which ranges from individual and collective protection equipment such as fully encapsulated CBRN protective suit level A, to compressed air breathing apparatus and air compressors, C and R detectors, portable decontamination system, or chemical sampling kits.

SECTRANS-NAS

The second project was the “development and strengthening of risk management capacities related to the land transport of chemical and biological substances in North Africa and the Sahel region” – Project 72, also known as SECTRANS-NAS.

The transport of chemical and biological products presents an increasing risk that justifies stricter regulations and other accident prevention measures aimed at protecting both the population and the environment. The strengthening of regional cooperation is also necessary, as TDG is not limited to sovereign borders. Over the course of its implementation, SECTRANS-NAS has aimed to develop a comprehensive chemical- and biologically-focused legal framework adapted to each country, with local training sessions for safety advisers, carriers and drivers involved in the TDG.

The project has also delivered a circulation model and a model outline for each of the Partner Countries’ capital and/or other main cities selected by the national authorities.

SECTRANS-NAS is reinforcing measures for prevention, preparation and response to TDG accidents focused on transport companies, first responders and security services by taking into account the best practices available and harmonised across the Sahel region, including the use of a computer model of atmospheric dispersion.

Although the pandemic has reduced the possibilities for implementers to travel, workshops were able to take place remotely. An exercise to be conducted in





each partner country, as well as a joint regional exercise, are also planned to anchor knowledge.

To know more about the project on TDG implemented in the AAF region, read the news feature 'INSTASUR and SEC-TRANS: a strengthened framework to secure the risk management involving chemicals in the Atlantic African Façade Region', published within the AAF region section of this Newsletter (page 7).*

Visit to the supplier in Toulouse: objectives

In September 2021, I visited the supplier's headquarters in Toulouse, France, to discuss the equipment delivery programme and the training schedule ahead. The administrative stages of the materials shipping (export, supply, delivery, unloading, installation, commissioning) and the

difficulties that may be faced throughout this process were also addressed during the visit. An equipment delivery assistance table was presented to improve administrative formalities, as seen in the infographic accompanying this text.

Maintenance to be expected

The units that receive the equipment also benefit from first-level maintenance training. In the longer term, however, the beneficiary Partner Countries will have to set up themselves monitoring and maintenance procedures, in particular for the detectors provided (i.e. calibration, replacement of electrochemical cells, possible repairs). The OSA technical assistance expert is at their disposal to find solutions, preferably local.

Projects' progress and way forward

P70, P71 and P72 have achieved a more

or less advanced stage of implementation depending on the Partner Countries. The extent to which these projects have progressed relates to the Partner Countries' ability to deliver the equipment, customs clearance difficulties, and the availability of the various participants to engage in workshops or training.

In January 2022, the three projects were progressing positively and should be able to be concluded in mid 2022. These projects are making possible to strengthen the legal, technical and organisational capacities of the various Partner Countries concerned in their efforts to mitigate TDG risks and to provide a response in the event of a CBRN transport accident. The objectives envisioned by the NFPs back in 2017 will then be achieved. □



Presentation in the classroom, Morocco.



SOUTH EAST ASIA

By R. Alexander Hamilton, Gladdes H. Arreco, John Jones and Expertise France Team

Opening of a new South-East Asia Regional Secretariat office

by R. Alexander Hamilton

In 2021, the Regional Secretariat for South East Asia achieved a number of important milestones, including the signing of a Memorandum of Understanding (MoU) between UNICRI and the Bureau of Fire Protection (BFP) of the Philippines and the subsequent opening of a new office at the BFP National Headquarters.

Located in Quezon City, Metro Manila, the new office offers exceptional facilities, including a modern workspace for two staff and access to a fully connected meeting room. The Regional Secretariat equally benefits from BFP's leadership and experience as the nation's first responders to CBRN incidents and emergencies, making the office well placed to engage on CBRN issues on both the strategic and operational level.

Special thanks are due to Major General Jose Embang, Jr., long-time National Focal Point for the Philippines and former Director of BFP, for leading these developments. Through his actions, signing the MoU and facilitating the set-up of the new office, Major General Embang has helped ensure the long-term sustainability of the EU CBRN CoE in South East Asia.

Ice Plant Ammonia Leak: Philippine Experience and Lessons Learned

by Gladdes H. Arreco

The Blast

Ammonia is a common freezing agent used in ice plants in the Philippines. On 3 February 2021 at around 4pm, an explosion occurred followed by a minor fire incident in an Ice Plant



New South-East Asia Regional Secretariat office at the Bureau of Fire Protection National Headquarters, Quezon City, Metro Manila, Philippines.



Ice Plant and Cold Storage Building Facility after the ammonia blast incident, Navotas City, Metro Manila, Philippines.

and Cold Storage Building Facility in Navotas City, Metro Manila, Philippines. Navotas City is known for the Navotas Fish Port Complex, which is the premier fish center of the Philippines and the

biggest consumer of ice in the area. The Bureau of Fire Protection is the frontline government agency of the Philippines on fire and emergency medical response. During the incident,



responders noticed at once the strong odor emitted from the leaking hazardous material in the factory. Firefighters immediately secured the perimeter and evacuated people in the area. During the investigation on the cause of the explosion, significant data suggested mechanical means of rapid expansion of gas. One of the cylinder containers of liquid anhydrous ammonia used by the company had pressure build up inside the tank causing the container to fail and explode. The failure of the cylinder was attributed to age, use and stress caused by corrosion. An important safety feature, the Pressure Relief Valve (PRV), also failed. The PRV was found to be oxidized due to internal moisture and severe corrosion.

Unfortunately, the incident claimed the lives of two employees identified as Gilbert Tiangco, age 44, and Joselito Jazareno, age 54. Approximately 90 other civilians within the area reported difficulty breathing.

Lessons Learned

The Bureau of Fire Protection of the Philippines has consistently worked on improving its competencies, especially

in relation to hazardous materials. Partners, like the EU CBRN Risk Mitigation Centres of Excellence, have also extended a hand to provide relevant resources and technical assistance.

The Navotas City Ammonia Blast Incident highlighted the need for capacity building measures among firefighters in the Philippines, especially to provide extensive and thorough fire safety inspection training on hazardous materials with an emphasis on mechanical nomenclature of their storage components. The incident paved the way for the development of extensive contingency plans for all cities in Metro Manila with ice plants and similar facilities. It also motivated a series of lectures from fire responders to city station commanders on hazardous material preparedness and response.

Project 81 BIOSEC: Making Progress in a Pandemic

by John Jones

As part of our project plan, the Project 81 Team created a risk register in 2019. Amongst the risks listed was, "Natural disasters and infectious diseases". Our

proposed risk mitigation measure at that time was, "If it becomes unsafe or logistically impracticable to conduct a visit, training or workshop at the scheduled time, the Project Team Leader will seek to defer the visit and reschedule once the risk has passed. This may require an amendment to the travel budget for the relevant work package". Whilst we can congratulate ourselves on correctly identifying the risk, who could have predicted in 2019 that the time for the risk to pass would be in excess of two years? (Actually, when I wrote an article for the 2021 CoE Newsletter, I thought we would be operating in-country by the end of that year – but that is still not possible.)

In terms of project delivery, the main "casualty" of the pandemic continues to be the various in-country and regional workshops which have been rendered impossible by travel or quarantine restrictions and the fact that the main target audience for P81 is composed of the staff dealing with real-life public health issues. In addition, the ebbs and flows of the disease have brought with them constantly shifting restrictions on travel and self-isolation – often introduced at short notice. Moving forward has therefore demanded a degree of flexibility which would have been impossible to anticipate when the original project plan (and budget) was put in place. Nevertheless, flexibility in our approach has been the key to

“ As we moved towards the first quarter of 2021, it became increasingly evident that remote working would be the norm rather than the exception ”



Director Orathai Suphan (centre) and scientific staff at Regional Medical Sciences Centre 8 Udon Thani.





Sample preparation at RMSC 8 Udon Thani.



Chemical analysis at RMSC 8 Udon Thani.

making progress during this period. A good example was a visit to the National Focal Point in Bangkok as soon as restrictions eased in December 2021, which enabled some fact-finding and the joint identification of options for the future. I was also fortunate to be able to attend the Regional Public Health Laboratory (RPHL) network conference and give a short presentation about possible synergies between the RPHL and Project 81.

Some of the project work packages were always designed to be carried out mainly by correspondence – for example, the surveys of legislation in Partner Countries which are being delivered by a combination of questionnaires, desk-based research and online meetings with officials. Thanks to the continuing support of the National Focal Points, most of those surveys are now ready for review.

However, it became clear soon after

our launch meeting in March 2020 that face-to-face activity was going to be impossible for some time to come and that there would need to be a shift towards e-learning and webinars on Zoom or similar platforms. In fact, our launch meeting was one of the first “hybrid” events combining in-person attendance and contributions from P81 experts “live” via video link.

Webinars for developing and strengthening surge capacity to respond to major outbreaks and pandemics.

As we moved towards the first quarter of 2021, it became increasingly evident that remote working would be the norm rather than the exception. Therefore, the project initiated a series of webinars on topics which were relevant to the development of surge capacity in response to major outbreaks and pandemics such as the current, highly infectious SARS-CoV-2 pandemic. The series of webinars started in July 2021 and covered the following topics:

- **“Surge Capacity Assessment Tool”** (21 July 2021). This webinar was designed by our colleagues at the Dutch National Institute for Public Health and the Environment (RIVM) to support laboratory staff in identifying “choke points” when ramping up capacity at short notice;
- **“Waste Management in Pandemics”** (11 August 2021). The presentation from the UK Health Security Agency (UKHSA) focused on strategies for the safe-handling and disposal of medical waste, a subject that is often overlooked despite the fact that extra tests and revised clinical procedures generate vast amounts of additional waste material during pandemics;
- **“Training for laboratory workers in the end-to-end diagnosis of SARS-CoV-2”** (29 September 2021). This webinar also provided access to an e-learning module developed by UKHSA;
- **“Outbreak preparedness using WHO LBM4 to assess risk and move towards resilience”** (27 October 2021). Delivered by UKHSA and exploring

the more flexible approach to risk management recommended in the recently published World Health Organization Laboratory Biosafety Manual, 4th Edition;

- **“Novel Pathogen Detection and Sequencing”** (24 November 2021). This was a joint effort by Mahidol Oxford Tropical Medicine Research Unit (MORU) Bangkok, UKHSA and RIVM and covered genome sequencing, metagenomics and detection of new variants in waste-water.

These webinars proved to be very popular and attracted delegates from across the South-East Asia region and beyond – Barbados and Kyrgyzstan, for example! The feedback was universally positive with high ratings for the content and structure of the webinars.

In 2022, we plan to continue with monthly webinars. An online survey of over 400 contacts who had either attended the webinars or who had registered to attend indicates strong interest in topics such as:

- **codes of conduct for researchers,**
- **selection of PPE,**
- **public health messaging,**
- **physical security at laboratories and,**
- **data sharing.**

We are currently designing webinars to address these topics.

Looking ahead, and as travel restrictions are gradually lifted, we are developing a programme of survey missions to laboratories and border control points in participating countries alongside workshops with ministries and planners. We hope to start this programme at the end of March 2022, but I predict that flexibility will continue to be the central theme for some time to come.

Nuclear Masters: Graduate Success Stories

by R. Alexander Hamilton

Nuclear safety and security risks pose a growing threat to the South-East Asia region and the world, yet relevant



Maj. Sandy Tith.

education and training opportunities are limited. This means that many talented students lack the necessary funding and educational opportunities to advance their knowledge and careers as nuclear safety and security professionals. Recognising this challenge, in 2013, EU CBRN CoE Project 29 sought to provide students in South East Asia with the opportunity to participate in the Nuclear Security, Safety and Safeguards Master's Programme at Chulalongkorn University, Department of Nuclear Engineering, Thailand. The two-year programme, which employed

IAEA educational materials, provided a platform to develop human resources and networking opportunities for young CBRN professionals in the region.

The project began by selecting candidate students from Partner Countries in South East Asia who demonstrated academic excellence and merited financial support to participate in the masters. It then provided successful candidates with scholarships, enabling them to participate in the two-year programme and gain critical knowledge in nuclear safety and security. This



Brig. Gen. Vuthy Khun.

article showcases the experiences of three Cambodian alumni who have gone on to become CBRN professionals in their home country, applying and sharing knowledge gained through EU CBRN Project 29 to help strengthen national, regional, and global safety and security.

Maj. Sandy Tith

CBRN National Team Member, Deputy Chief of Office of Chemical Substances, Department of Chemical Substance Control, General Secretariat of the National Authority for the Prohibition of Chemical, Nuclear, Biological and Radiological Weapons (NACW), Cambodia.

"I am grateful to CBRN CoE Project 29 for offering me the opportunity to participate in the Nuclear Security, Safety and Safeguards Master's Programme at Chulalongkorn University. This opportunity, which followed the completion of a Bachelor of Science Degree in Chemistry from the Royal University of Phnom Penh (RUPP), not only helped me gain knowledge on nuclear safety, security and safeguards, it also enabled me to be part of a network of graduates representing the Association of Southeast Asian Nations (ASEAN) countries. Since graduating, I have started to work and I can use this knowledge to fulfill my professional responsibilities, and also to share my knowledge and experiences with my colleagues in the office and other institutions in Cambodia. This knowledge has further helped during





Maj. Tan Lyheng.

many programmes overseas such as trainings, workshops, and seminars.”

Brig. Gen. Vuthy Khun

CBRN National Team Member, Deputy Director of Institute for Research and Experiment on Chemical Weapons, General Secretariat of the National Authority for the Prohibition of Chemical, Nuclear, Biological and Radiological Weapons (NACW).

“The Master’s Programme at Chulalongkorn University, Bangkok, Thailand, helped me develop a strong foundation in nuclear safety, security and safeguards. This knowledge, including on relevant international disarmament and non-proliferation regimes, has not only helped advance my career, but it has also helped me share knowledge and experiences at international trainings, workshops and meetings with OPCW, IAEA, CBRN CoE Projects and others.”

Maj. Tan Lyheng

Deputy Chief of Office of Nuclear Weapons, Department of Chemical Substance Control, General Secretariat of the National Authority for the Prohibition of Chemical, Nuclear, Biological and Radiological Weapons (NACW), Cambodia.

“After graduating with a Bachelor of Science Degree in Chemistry from the Royal University of Phnom Penh (RUPP), I received the special opportunity to participate in the Nuclear Security, Safety and Safeguards Master’s Programme (2013-2015) thanks to a scholarship through EU CBRN CoE Project 29. The master’s programme helped me gain knowledge and experience in the domain of CBRN risk mitigation, especially in the nuclear field. The programme specifically helped me improve my knowledge about nuclear security, nuclear safety and nuclear safeguards. This has not only helped me begin my career with NACW, but it has also given me the opportunity to share my knowledge and experience with colleagues through training programmes in my workplace.”

By providing education and training opportunities of this kind, the EU CBRN CoE is helping ensure that the next generation of CBRN professionals is better prepared to prevent, detect and respond to future CBRN emergencies.

EUP2P Export Control Programme for Dual-use Goods – Projects 64 and 90 – showing a way forward out of the pandemic

By Expertise France Team

The EU P2P Export Control Programme for Dual-use Goods aims at cooperating with strategic partners to jointly enhance the effectiveness of dual-use trade control systems worldwide by sharing experiences and best practices and supporting compliance with international obligations, most notably under UN Security Council Resolution 1540.

Project 64 of the EU P2P Programme, launched in 2017, aims at contributing to the creation, consolidation and updating of effective strategic trade control systems in specific geographical zones around the world. Dozens of

“ By providing education and training opportunities of this kind, the EU CBRN CoE is helping ensure that the next generation of CBRN professionals is better prepared ”

activities and dialogue fora have been conducted or established during the first four years of the project. In line with recently published EU priorities, such as the EU Strategy for Cooperation in the Indo-Pacific, and with priorities formulated through the EU CBRN CoE Regional Secretariat for South East Asia, a dedicated EU P2P project - Project 90 - for Southeast Asian Partner Countries was launched in December 2021. Implementing teams from both Project 64 and Project 90 will ensure continuous dialogue and coordination so that activities are based on best practices and lessons learnt in Project 64. They will also strengthen their cooperation with stakeholders of the EU CBRN CoE Initiative.

The outbreak of the Covid-19 pandemic in early 2020 disrupted many cooperation opportunities in the field of dual-use goods. The reduction of trade flows, the adoption of emergency agendas and the difficulties in information exchange forced the consortium led by Expertise France to adapt activities in order to maintain dialogue with partners in these unprecedented times.

Our priority was to establish appropriate conditions for remote cooperation with our Partner Countries. The waves of the pandemic obliged us to take into account unexpected and sudden restrictions





SEA REGION

worldwide. Throughout the pandemic, the project was forced to explore different ways of dialogue. Capitalising on the experience of other institutional partners was a key element to navigate the arduous times of the pandemic. An enhanced coordination with other EU P2P initiatives, such as the EU P2P Arms Trade Treaty Outreach Programme (ATT OP) II or the COARM project, allowed for exploring a more integrated EU approach on strategic trade controls. The EU P2P Platform, developed for the third phase of the ATT OP, provides a unique opportunity to create a vigorous and engaged EU P2P community.

A strengthened dialogue with national actors in Partner Countries remained pivotal to understand and support the effectiveness of national dual-use trade controls. Using online platforms, a series of continuous and adaptive remote needs assessments have been conducted in order to determine

challenges and bottlenecks at the national level.

Nevertheless, a more ambitious approach was vital for the achievement of the goals of the project. Despite the pandemic, new and protean threats arise, questioning the effectiveness of our political and technical responses. A more solid prospect on subjects such as the management of foreign direct investments, the intangible transfers of technologies or proliferation financing had to be developed and proposed to address these challenges.

In 2022, both Project 64 and Project 90 aim at including an updated methodological offer, including new themes that are perceived as priorities for the EU and Partner Countries in terms of effectiveness of national strategic trade controls. Trainings dedicated to emerging technologies, academic outreach and commodity

identification are some of the subjects where the EU P2P Programme may play a significant role in 2022. This year will also feature the deployment of EU P2P e-learning modules – an innovative tool to accompany the transfer of knowledge amongst cooperation partners. A tailor-made learning approach, supported by the EU P2P expert teams, will allow officials from Partner Countries to develop learning curricula adapted to the challenges and priorities of each country, maximizing the possibility to adjust the technical offer to specific country needs. It is not clear how e-learning will address the challenges posed by administrative turnover. The 13 modules developed provide a comprehensive overview of the main aspects of dual-use trade controls.

The 2022 activities have just begun, so stay tuned! ▣





SOUTH EAST AND EASTERN EUROPE

By Mari Lursmanashvili, Talgat Toleubayev, Sorin Popa and Jumber Mamasakhli



the framework of the EU CBRN CoE, which allowed their participation in the webinars. Ten online webinars were organised in 2020 and 2021, gathering over 600 participants.

As a result of the efforts of the SEEE Regional Secretariat, ten online webinars were organised in 2020 and 2021, gathering over 600 participants from several regions and twenty-four international and regional experts - out of whom, nineteen PhD Doctors and professors - , who spoke about their areas of expertise. In addition, speakers from 3 international organizations (the World Health Organization, the International Atomic Energy Agency, and the United Nations Interregional Crime and Justice Research Institute - UNICRI) contributed to the delivery of these webinars by sharing their valuable expertise and experience in the areas of biosafety and biosecurity.

Annual achievements in the SEEE region

by Mari Lursmanashvili, Talgat Toleubayev, Sorin Popa, Jumber Mamasakhli

The year 2021 has been another year full of challenges and problems for all countries within the EU CBRN Centres of Excellence (CoE) Initiative. According to the Charter, the role of the Regional Secretariat of the EU CBRN CoE is to facilitate regional cooperation in order to enhance CBRN risk mitigation awareness, readiness and capabilities at national, regional and international levels. The Regional Secretariat of the South East and Eastern Europe (SEEE) region is happy to share its accomplishments in 2021.

Interregional webinars

The SEEE region continued its initiative started in 2020 with the goal to support the Partner Countries with a series of online webinars aimed at

assisting national experts and relevant stakeholders, to complement countries' efforts in prevention and response to the COVID-19 pandemic. After completion of six webinars in 2020, a survey was disseminated among the participants for the purpose of identifying Partner Countries' additional needs and specific gaps to respond to the pandemic.

Based on the priority areas identified in the region, the SEEE Regional Secretariat organised four interregional webinars to address the following subjects: Status of COVID-19 vaccination in the European Region (31 March), Essential Public Health Measures for Effective Responses to the COVID-19 Pandemic (18 May), Management of SARS-CoV-2 waste generated from different settings (25 May), and Quality Assurance and Quality Control in COVID-19 Laboratory Testing (8 June). The invitations to attend these webinars were extended to the other seven regions within

Planning of the Biosafety and Biosecurity practical field exercise

As a continuation of the enhancing of biosafety and biosecurity capabilities

“ Ten online webinars were organised in 2020 and 2021, gathering over 600 participants ”





SEEE REGION



State Border Guard Service of Ukraine.

in the SEEE region, the Regional Secretariat, in close cooperation with the National Focal Point (NFP) of Ukraine, Mr Maksym Samusevych, worked on plans to conduct the next practical field exercise in Kyiv, Ukraine. The regional exercise was supposed to be scheduled in 2022 and unanimously accepted by the SEEE region to be named as “Trident Shield” Exercise and hosted by the State Border Guard Service of Ukraine.

Every partner country of the SEEE region would play a certain role allocated to them during this biosafety and biosecurity field exercise with the aim of testing inter-agency coordination and cooperation. As such, roles would be assigned to first responders, decontamination, border control, customs, command and coordination,

airport security, or medical and quarantine teams.

Unfortunately, due to the ongoing situation in Ukraine, it was recommended to postpone this practical field exercise in 2023. After getting confirmation from the NFP Ukraine, nine other countries of the SEEE region were encouraged to consider hosting this event in their territories.

CBRN Training Network

Networking has recently become a buzzword within the domain of training institutions and academia. In the high-tech era we live in today, it is quite easy to find acceptable technical solutions to bring together likeminded institutions for the purpose of interacting with each other physically or virtually and sharing

good practices in the interest of every member’s professional development. A similar initiative aimed to create a network of CBRN training institutions in the SEEE region was launched within the framework of the EU CBRN CoE Initiative.

The scope of the European Network of CBRN Training Centers (eNOTICE) may geographically cover all countries of the SEEE region. Some of the Partner Countries in this region even aspire to move towards the European Union membership. Consequently, all National Focal Points (NFPs) of the SEEE region suggested to explore the benefits and advantages for joining the eNOTICE Network. Within the framework of the EU CBRN CoE Initiative, the Regional Secretariat for the SEEE region



“ The scope of the European Network of CBRN Training Centers (eNOTICE) may geographically cover all countries of the SEEE region.” ”

organised a regional meeting with NFPs and relevant national institutions, on 7 April 2021. Participants received a brief overview of progress made in terms of implementation of the previous phases of the project and plans towards the integration of the SEEE CBRN institutions within the European Network of CBRN Training Centers.

The CBRN Training Net Initiative of the SEEE region concluded its activities by delivering the Awareness Raising Workshop targeted to national CBRN institutions in Partner Countries, held on 17 June 2021 in online format. Representatives of the European Network of CBRN Training Centres provided practical information workshop about the steps to join the e-NOTICE Network and fill out corresponding questionnaire. After completion of this registration process, we expect that the national CBRN institutions in SEEE region will become more visible to the European Union in order to support with the implementation of future projects and activities, as well as by providing with valuable expertise.

CBRN Regional Action Plan

The SEEE region started developing its own CBRN Regional Action Plan (RAP) in 2020, when all 10 countries of the region endorsed during the 14th National Focal Points (NFPs) Round Table Meeting (RTM) to move in this direction. The RAP is expected to support a mid-term and long-term strategy on capacity building to ensure the sustainability of the CoE projects and activities in the region. Upon development, the RAP will be a consolidated list of actions and priorities that the region agrees to work on in a harmonized way to mitigate

CBRN risks.

Seven different phases were completed by the SEEE Regional Secretariat in 2021: endorsement, preparation, consultation, preliminary analysis, national teams consultation, presentation, and consolidation. Two remaining phases including the review and adoption were implemented in 2022. The entire process will be complete with the actual implementation of the CBRN RAP throughout its 5 year duration.

More precisely, the Regional Secretariat started with consultation meetings with the following international organizations: the International Atomic Energy

Agency (IAEA), the Biological Weapons Convention Implementation Support Unit, the Organization for the Prohibition of Chemical Weapons (OPCW), the United Nations Office for Disarmament Affairs (UNODA) and the 1540 United Nations Committee. These efforts were conducted in order to understand other activities and priorities conducted by important international stakeholders and ensure complementarity of joint initiatives aimed to avoid duplication.

For the first time in its history, the SEEE region will use the top priorities expressed in its CBRN RAP to develop and implement new projects.

During the entire development process, the NFPs were informed with frequent updates about the implementing phases. In the 15th and 16th NFP RTMs, updates were provided from NFPs and their corresponding national experts about the findings and priority areas expressed as a result of consultations with relevant government authorities.



Illustration of the Regional Action Plan (RAP) lifecycle.



SEEE REGION

These RTMs also served to discuss in detail some important components of the RAP, including its duration, the nature of the document at operational and strategic levels, the annual review process, and recommendations in terms of specific activities.

The RAP was adopted by the SEEE NFPs in May 2022, during the 18th NFP Round Table Meeting held in Brussels, as a working document to guide our strategic actions in the SEEE region.

Therefore, for the first time in its history, the SEEE region will use the top priorities expressed in its CBRN RAP to develop and implement new projects. After the 16th NFP RTM, held in October 2021, Partner Countries agreed to choose two appropriate projects to be developed and further submitted to the European Commission for possible approval and funding. It is important to underline that this approach will be in perfect alignment with the "bottom up initiative", aimed to enhance regional networking of countries and consider their respective national priorities prior to the designing of projects or activities.

A series of CBRN Forensics Guidebooks

by Talgat Toleubayev

Background information

Within the framework of the EU CBRN Centres of Excellence (CoE) Initiative, the South East and Eastern Europe (SEEE) region successfully implemented two projects (P57 and P58), aimed at strengthening crime scene forensics capabilities when investigating CBRN

incidents. Completed in early 2020, these projects aimed to strengthen the existing traditional forensic capabilities in investigating CBRN incidents among police and security experts, and developed a training system for forensic investigation in CBRN-related cases.

Countries in the SEEE region have well-established and developed traditional forensic capabilities for the investigation and prosecution of CBRN cases. At the same time, knowledge and equipment to carry out traditional forensics in a CBRN environment required further improvement. Some additional recommendations were expressed by beneficiary countries after completion of these projects, including the possibility of joint training activities between forensics professionals and first responders in order to understand each other's roles in the event of real incidents, including training involving forensic investigators, prosecutors and judges.

Series of CBRN Forensics Guidebooks

Additional gaps and needs were revealed after completion of these projects, which will support Partner Countries in addressing the sustainability of CBRN forensic capabilities developed during the implementation of these projects. It was suggested to consider the possibility of developing the internationally recognized and endorsed guidance manuals and documents in this field. Consultations with the relevant subject matter experts in the CBRN forensics reiterated the need for the production of a series of CBRN forensics Guidebooks aimed to provide a high-level strategic guidance to

STEPS IN CBRN FORENSICS GUIDEBOOKS PRODUCTION

- 1 Prosecutors Guidebook to Chemical and Biological Crimes**, developed in close cooperation with the OPCW and the IAP.
- 2 CBRN forensics Guidebook on Chemical and Biological Crime Scene Management**, developed together with INTERPOL.
- 3 Prosecutors Guidebook to Radiological Crimes**, with the IAEA, and the JRC in Karlsruhe.

decision makers and commanders at the national level in order to respond to, and cope with, the CBRN incidents.

The United Nations Interregional Crime and Justice Research Institute (UNICRI), in close cooperation with its international partners, started developing a Series of CBRN forensics Guidebooks aimed to support decision makers and practitioners with a guidance on policies, recommendations and best practices aimed to enforce and build up their forensics capabilities. Funding was received from the Service for Foreign Policy Instruments of the European Commission, as part of the EU CBRN CoE Initiative. Experienced regional CBRN subject matter experts as well as forensics and laboratory personnel were recruited and contracted to provide their professional services in terms of generating the content and helping to write the Guide.

The first step in this direction is the production of the Prosecutors Guidebook to Chemical and Biological Crimes, which was developed in close

“ Consultations with relevant subject matter experts in CBRN forensics reiterated the need for the production of a series of CBRN forensics Guidebooks aimed to provide a high-level strategic guidance ”





Collage of scenes from P57 and P58.





Cover of the "A Prosecutor's Guide to Chemical and Biological Crimes".

cooperation with the Organization for the Prohibition of Chemical Weapons (OPCW) and the International Association of Prosecutors (IAP). The development team included a group of 15 experienced professional subject matter experts including senior prosecutors, trial attorneys, police and law enforcement officers, CBRN forensics practitioners, and laboratory experts. For 9 months of 2021, they have tirelessly worked to produce this important guidance document in close coordination with other relevant experts and stakeholders, prior to the actual review meeting, which was held on 14 December 2021.

The online review meeting, organized by the UNICRI and its international partners, was attended by over 40 participants including members of the core development team, UNICRI project team, external subject matter experts, regional CBRN forensics experts, and representatives from international organisations and stakeholders

including: the European Commission, the Organization for the Prohibition of Chemical Weapons (OPCW), the International Association of Prosecutors (IAP), the European Union's Law Enforcement Agency (Europol), the United Nations Office for Disarmament Affairs (UNODA), the Biological Weapons Implementation Support Unit (BWC ISU), the Joint Research Centre (JRC), the World Health Organization (WHO), the Netherlands Forensic Institute (NFI), the International Security and Emergency Management Institute (ISEM), representatives of the EU CBRN Centres of Excellence Initiative and the SEE Regional Secretariat.

The Prosecutor's Guide to Chemical and Biological Crimes was officially published in the UNICRI's site, which will also be available in the EU CBRN CoE platform.

The second CBRN forensics Guidebook will be covering the Chemical and Biological Crime Scene Management aspects, which will be developed

together with the International Criminal Police Organization – INTERPOL. Other international organizations expressed their willingness to work together in developing this guide. Negotiations with INTERPOL are ongoing regarding the conditions, funding and content. Both UNICRI and INTERPOL have previously supported the International Atomic Energy Agency (IAEA) in producing the Radiological Crime Scene Management Implementing Guide, which is part of the IAEA's Nuclear Security Series Guide 22G. This Implementing Guide was jointly sponsored in 2014, so all 3 organizations currently work to issue the updated version sometime in 2022.

A series of the CBRN Guidebooks will be completed with development of the Prosecutors Guidebook to Radiological Crimes, with the IAEA, and the European Commission's Joint Research Centre (JRC) in Karlsruhe. It will be complementing the IAEA's Nuclear Security Series Guide 22G. All partners





IAEA Headquarters in Vienna, Austria.

agreed to start the development in 2022 within the IAEA’s platform as suggested by the International Atomic Energy Agency.

Way forward and sustainability

All three guidance documents were proven to be a unique tool, which does not duplicate any existing efforts undertaken so far by anyone. They are aimed to complement already existing manuals

“ All three guidance documents were proven to be a unique tool, which do not duplicate any existing efforts undertaken so far by anyone ”

and guides with their unique content, methodology and targeted audience. Two presentations were delivered during relevant session of the Working Group of the G7 Global Partnership Against the Spread of Weapons and Materials of Mass Destruction. The international community is well aware about this initiative of the UNICRI with its international partners and stakeholders. Nowadays, we may find a wide variety of CBRN forensics guidance manuals issued by standalone international organizations or law enforcement authorities aimed at their narrow area of interest and addressing only certain aspects pertinent to their functions. In very rare instances are these guidance documents well populated and well-integrated in the daily operational areas of their end-users. We should be frank to admit that such guidance documents, in many instances, remain in the bookshelves and libraries without proper use by the professional community to whom it is targeted to be used.

In order to address the everlasting issue of sustainability, the UNICRI will integrate some additional action-oriented components to its Guidebooks, which will complement the internationally endorsed guidebooks by several relevant stakeholders. Development of several training curricula, e-learning modules, or educational videos, based on the content of the Guidebook, will support in putting some theoretical elements mixed with some sensitive parts which were not integrated in the Guidebook due to its open source nature and free availability in web-sites of international organizations. After tackling the theoretical part of the Guidebook, some practical components will be tested during capacity building and training activities targeted to the wide spectrum of end-users. Training activities will include practical components in a table-top or other formats, as well as scenarios of real cases depicted in the Guidebook. □





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About the EU CBRN CoE

The European Union (EU) Chemical, Biological, Radiological and Nuclear (CBRN) Risk Mitigation Centres of Excellence (CoE) is a global Initiative funded and implemented by the European Union as part of its goal to promote peace, stability and conflict prevention.

The aim of the Initiative is to mitigate risks and strengthen an all-hazards security governance in Partner Countries of the EU following a voluntary and demand-driven approach. The EU support is provided to implement a wide range of CBRN risk mitigation activities including needs and risk assessments, national and regional action plans, capacity building activities, legal framework reviews, table top and real time (including cross-border) field exercises, inter-regional exchange of best practices and lessons learnt.

The Initiative is led by the European Commission, 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). Other relevant International Organisations and local experts contribute to the Initiative, which represents the EU's largest civilian external security programme.

For more information visit CBRN CoE website at:

www.cbrn-coe.eu or send us an e-mail at:
eu-cbrn-coe@ec.europa.eu

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