

**EXPERTS' OPINIONS – OPINII ALE EXPERTILOR – AVIS DES EXPERTS –  
МНЕНИЯ ЭКСПЕРТОВ**



**BIO SAFETY ASSOCIATION FOR CENTRAL ASIA AND THE CAUCASUS  
(BACAC) – REGIONAL COOPERATION**

Lela Bakanidze, PhD, RBP, Professor, President Biosafety Association for Central Asia and the Caucasus (BACAC)

*Corresponding author: Lela Bakanidze, e-mail: l.bakanidze@agr.uni.edu.ge*

During the Covid-19 outbreak, there are many questions related to biosafety/biosecurity, raised on how to handle human material, etc. Currently, there is no sufficient knowledge about the pathogenic potential and transmission risks for the novel 2019 Coronavirus, SARS coronavirus-2 (SARS-CoV-2), and its associated diseases. Therefore, biosafety associations worldwide can provide real assistance.

Biosafety Association for Central Asia and the Caucasus (BACAC) was founded in 2009. The initiative came from Kazakh Scientific Center for Quarantine and Zoonotic Diseases (KSCQZD), and supported by different former Soviet anti-plague institutions.

Soviet Union operated a large and unique network of facilities, called the “anti-plague (AP) system,” which main mission was to control life-threatening endemic diseases and to prevent the import of exotic pathogens from other countries. Though the name of the system was “anti-plague”, it also studied other dangerous endemic and exotic diseases caused by bacteria or viruses. Throughout the Soviet era, the anti-plague system had worked effectively to prevent major epidemics, leading to death of Soviet citizens in regions, where diseases such as anthrax, brucellosis, plague, Crimean-Congo Hemorrhagic Fever (CCHF), tularemia, etc. are commonly endemic.

The former Soviet Union (FSU) republics shared a common legislation, including biosafety regulations on handling dangerous pathogens. However, after the Soviet Union collapse, the situation worsened and experts in biosafety found it necessary to establish regional biosafety associations.

The common issues related to Biosafety across Central Asia and Caucasus were as following:

- Biosafety was not developed as a separate area.

- The biosafety approaches differed from the international ones.
- Inadequate requirements when handling highly dangerous pathogens.
- Lack of staff responsible for biosafety.
- Inadequate training of personnel in the field of biosafety.
- Low wages and high employee turnover.
- Lack of equipment.
- Poor biosecurity management.
- Risk of unauthorized access to some institutional laboratories.
- Poor legal and regulatory frameworks regarding biosafety and biosecurity.

The BACAC Member countries initially included Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan, Armenia, Azerbaijan, Georgia, Turkmenistan, Afghanistan and Mongolia. Today BACAC comprises about 100 members, representing public health, animal health, academia, engineering, and other fields, which is very productive for bringing together different views.

BACAC is member of the International Federation of Biosafety Associations (IFBA), partner – organization for European Biosafety Association (EBSA), American Biosafety Association (ABSA), sister-organization for Georgian Biosafety Association (GeBSA) and Azerbaijan Biosafety Association. Since its establishment, BACAC was supported by international donors and organizations, like Global Partnership Programme, Global Affairs Canada, Defense Threat Reduction Agency (DTRA), US Department of Defense, Ministry of Defense of United Kingdom, International Science and Technology Center (ISTC), Science and Technology Center of Ukraine (STCU), etc.

The major objectives of the Association are as follows:

- To promote biosafety as a regional priority.

- To integrate the best international practices for biosafety when handling infectious microorganisms.
- To assist members in the development of programs, guidelines, standards and regulations.
- To promote research and science development via modern biosafety and biosecurity methods.
- To develop and provide integral training programs.
- To promote biosafety cooperation with other international associations and societies.

Since its establishment, BACAC had held 6 conferences viz. the conference of founders, which included 155 participants from 16 countries and 6 Annual Conferences. During these conferences, there were conducted about 30 trainings, aiming to train more than 1200 specialists. Several bio-risk management guidelines were published for various types of institutions. A workshop for Mongolian biosafety/biosecurity experts was conducted in 2014 in Ulaanbaatar, Mongolia, where 64 Mongolian specialists were trained.

In 2013 – 2014, BACAC faced some difficulties, regarding low participation and contribution to various BACAC activities, as well as a lack of adequate financial control mechanisms and accountability, etc. Thus, the International Federation of Biosafety Associations (IFBA), being supported by the UK MoD, implemented the BACAC Sustainability Project, which carried out an assessment of BACAC organizational diagnosis.

In November 18-21, the BACAC Sustainability Workshop was organized in Tbilisi, Georgia, being supported by IFBA and UK MoD, at which the BACAC members discussed challenges and their solutions. The workshop resulted in elaboration of the new Statute and Strategic Plan.

### **Mission**

Spreading knowledge and building capacity for biosafety and biosecurity among professional groups and the population from Central Asia and the Caucasus.

### **Vision**

Professional coordinator and agent for dissemination of knowledge regarding biosafety, em-

ploying international best practices, in the countries of Central Asia and the Caucasus.

### **Strategic Objectives**

- To provide the application/implementation of biosafety international best practices among professionals within a region.
- To outline a common scheme/framework for dissemination of knowledge to the population within the region and facilitate awareness-raising on biosafety issues.
- To develop BACAC into a well-functioning organization, as to become a well-recognized leader in biosafety at the local and regional level.
- To establish and strengthen close cooperation with international organizations engaged in the field of biosafety.
- To collaborate with governments, in order to strengthen national and regional biosafety policies and programs.

On September 19-23th 2016, the ISTC in collaboration with BACAC and Regional Biosafety Training Centre (Dushanbe) delivered a regional CCHFV/Ebola Capacity Building Training Seminar for 42 leading and young scientists in the Tajik Research Institute of Preventive Medicine (TRIPM), Dushanbe, Tajikistan. The scientists included participants from Armenia, Azerbaijan, Georgia, Iran, Kazakhstan, Kyrgyzstan, Mongolia, Pakistan, Tajikistan, Turkmenistan and Uzbekistan.

### **EU CBRN CoE/BACAC 6<sup>th</sup> Annual Conference “BACAC: Bridging the Gaps”**

The European Union Chemical Biological Radiological and Nuclear Risk Mitigation Centers of Excellence Initiative (or EU CBRN CoE) ([www.cbrn-coe.eu](http://www.cbrn-coe.eu)) were launched in response to the need to strengthen the institutional capacity of countries outside the European Union to mitigate CBRN risks. These risks may be created intentionally, accidentally or naturally.

The EU CBRN CoE aims to strengthen regional security by increasing local ownership, local expertise and long-term sustainability. The EU CBRN CoE is centred around a worldwide network of local experts and collaborating partners. Currently the Initiative covers 8 regions and 61 partner countries.

The EU CBRN CoE Regional Secretariat for Central Asia is located in Tashkent, Uzbekistan. It works in partnership with Central Asian EU CBRN CoE Partner Countries to encourage local ownership of CBRN action plans, policies and joint preparation of regional project proposals.

The European Union Chemical, Biological, Radiological and Nuclear Risk-mitigating Centers of Excellence Initiative (EU CBRN CoE) and the Biosafety Association of Central Asia and the Caucasus (BACAC) conference “BACAC: Bridging the Gaps” was conducted on 11-15 March 2019, in Tashkent, Uzbekistan. Over 170 participants from Central Asia, the Caucasus, Eastern and Western Europe, United States of America, and various international organization (WHO, OIE, IFBA, EBSA, UNICRI, UNOG, ISTC and STCU) attended the meeting.

The major purpose of the conference was to support cooperation and coordination at the regional and international level, as well as to stimulate discussions on strengthening policies, capabilities and capacities to mitigate Biosafety and Biosecurity risks.

The Conference covered the following topics:

- Harmonization of national regulatory frameworks with respect to the Biological Weapons Convention (BWC), the World Health Organisation’s International Health Regulation (IHR), and Codex Alimentarius.
- Regional and international cooperation on:
  - emergency response to biological incidents (either accidental, natural or intentional);
  - disease surveillance, discussing challenges and solutions, including international laboratory standards;

- improving training standards and supporting creation of regional networks of trainers.

- Outcomes and benefits of EU CBRN CoE Projects regarding Biosafety and Biosecurity, such as from EU CBRN CoE Projects 53, 61, 65 and 67.
- Biosecurity challenges that are being faced by institutions and countries.

Prior to the conference, 7 pre-conference training workshops were organized regarding Laboratory Quality Management Implementation, Grant Writing: Funder Perspective, The Anthropocene and Threats to Human Survival, Biological Spill Response Training, Laboratory Risk Assessment – How to Create a Safe, Sustainable Laboratory, Opportunities to Enhance the Implementation of the BWC, etc. About 300 subject experts from Partner Countries of the Regional Secretariat for Central Asia and other countries were trained. Moreover, the participants had opportunity to take IFBA certification exams.

#### **EU CBRN CoE/BACAC 7<sup>th</sup> Annual Conference “Challenges of Biosafety/Biosecurity – Lessons Learned from Coronavirus Crisis”**

After COVID-19 global crisis ceases or slows down, a thorough review of the lessons learned regarding preparedness, prompt response, and gaps analysis, etc. will be required. EU CBRN CoE/ Biosafety Association of Central Asia and the Caucasus (BACAC) conference might organize a good forum for bringing together representatives’ experts from partner countries from different Regional Secretariats of EU CBRN CoE. This forum will be conducted in Tbilisi, Georgia during fall 2020-spring 2021, depending on the COVID-19 pandemic situation.

**Date of receipt of the manuscript: 02/04/2020**

**Date of acceptance for publication: 22/05/2020**