

**Eighth Review Conference of the States Parties  
to the Convention on the Prohibition of the  
Development, Production and Stockpiling  
of Bacteriological (Biological) and  
Toxin Weapons and on Their Destruction**

8 November 2017

English/Spanish only

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Geneva, 7-25 November 2016

Agenda item 10(b)

**Review of the operation of the Convention as  
provided for in its Article XII  
Articles I-XV**

**International Activities of Global Partnership Member  
Countries related to Article X of the Biological and Toxin  
Weapons Convention**

**Submitted by: Canada, Denmark, European Union, Finland, Germany,  
Japan, Mexico, the Netherlands, Norway, Spain, Sweden, United  
Kingdom and the United States**

1. The member countries of the *Global Partnership Against the Spread of Weapons and Materials of Mass Destruction*<sup>1</sup> are committed to implementing concrete projects around the world to combat WMD-related terrorism and proliferation. Global Partnership (GP) members have identified strengthening biological security as a key priority for their collective programming efforts, and pursue activities that aim to:

- Secure and account for materials that represent biological proliferation risks;
- Develop and maintain appropriate and effective measures to prevent, prepare for, and respond to the deliberate misuse of biological agents;
- Strengthen national and global networks to rapidly identify, confirm and respond to biological attacks;
- Reinforce and strengthen biological non-proliferation principles, practices and instruments; and
- Reduce proliferation risks through the advancement and promotion of safe and responsible conduct in the biological sciences.

2. In developing and delivering biological programming with partner countries, GP members place great importance on cooperation and assistance under Article X of the Biological and Toxin Weapons Convention (BTWC), which commits states both “to

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<sup>1</sup> Current active GP members are: Australia, Belgium, Canada, Chile, Czech Republic, Denmark, European Union, Finland, France, Germany, Georgia, Hungary, Ireland, Italy, Japan, Kazakhstan, Republic of Korea, Mexico, the Netherlands, New Zealand, Norway, the Philippines, Poland, Portugal, Spain, Sweden, Switzerland, Ukraine, United Kingdom and the United States.

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facilitate, and have the right to participate in, the fullest possible exchange of equipment, materials and scientific and technological information for the use of bacteriological (biological) agents and toxins for peaceful purposes” and to “avoid hampering the economic or technological development of States Parties to the Convention or international cooperation in the field of peaceful bacteriological (biological) activities”. GP members assess that Article X-relevant international cooperation and collaboration delivered through the Global Partnership contributes significantly to mitigation of global biological threats, whether they be naturally occurring, the result of accidental releases (including from laboratories) or a deliberate biological weapons attack.

3. In accordance with the Final Document of the Seventh Review Conference, in which States Parties were encouraged to submit detailed information on their implementation of Article X, the Global Partnership has prepared the following compendium of Article X-relevant projects implemented and/or funded by GP members since December 2015.

## Africa

<i>Project Title</i>	<i>Consortium for Advanced Research Training in Africa (CARTA)</i> <i>African Population and Health Research Center (APHRC)</i>
Partner Country/Region	Africa
Implementing Country	Sweden: Swedish International Development Cooperation Agency implemented by international NGOs
Project Value	€4,974,240 (SEK 48,200,000)
Duration	2012-2015
Description	Research cooperation: The major goal of the Consortium for Advanced Research Training in Africa (CARTA) is to build a vibrant African academy that is able to lead world-class multidisciplinary research that makes a positive impact on public and population health. This initiative aimed to: foster vibrant and viable multidisciplinary research hubs at African universities; create networks of locally-trained internationally-recognized scholars; and enhance the capacity of African universities to lead globally-competitive research and training programs.
<i>Project Title</i>	<i>Ebola Response</i>
Partner Country/Region	Africa
Implementing Country	Norway
Collaborating Institution or Partner(s)	World Health Organisation (WHO) African Union Norwegian Directorate of Health Norwegian Research Council Médecins Sans Frontières

<i>Project Title</i>	<i>Ebola Response</i>
	International Committee of the Red Cross UN multi-partner trust funds
Project Value	> NOK 500 million ( ~US\$60 million, approximately)
Duration	2014-15
Description	Ebola response. Concrete measures included: <ul style="list-style-type: none"> <li>- Norway staffed the Ebola Treatment Center (ETC) run by Medicos del Mundo (MdM) in Sierra Leone;</li> <li>- Norway set up and ran a basecamp providing accommodation for international aid workers in Moyamba, Sierra Leone;</li> <li>- Norway made a Hercules aircraft from the armed forces available for the transport of personnel and equipment to Sierra Leone. The aircraft made a total of 24 flights;</li> <li>- Norway provided NOK 32.7 million to the Research Council of Norway and WHO to support their work to develop an Ebola vaccine;</li> <li>- More than 300 Norwegian health workers volunteered to join the efforts in Sierra Leone, and 110 of them were recruited. The Bergen regional health authority was responsible for the recruitment process;</li> <li>- Three Norwegian teams, each made up of 15 health workers (doctors, nurses and ambulance personnel), worked in Moyamba.</li> </ul>

<i>Project Title</i>	<i>Regional Workshop in Preparation for the Eighth BTWC Review Conference</i>
Partner Country/Region	African Union
Implementing Country	Norway
Collaborating Institution or Partner(s)	Biological and Toxin Weapons Convention (BTWC) Implementation Support Unit (ISU)
Project Value	US\$12,660
Duration	2016
Description	Regional workshop in preparation for the Eighth BTWC Review Conference

<i>Project Title</i>	<i>CBRN 48. Improved regional management of outbreaks in the CBRN Centres of Excellence Partner Countries of the African Atlantic Façade</i>
Partner Country/Region	Benin, Cameroon, Gabon, Guinea, Ivory Coast, Liberia, Mauritania, Morocco, Senegal, Sierra Leone, Togo.
Implementing Country	France (several institutions); FIIAPP (Spain).

<i>Project Title</i>	<i>CBRN 48. Improved regional management of outbreaks in the CBRN Centres of Excellence Partner Countries of the African Atlantic Façade</i>
Project Value	€3,49,9600
Duration	01/01/2016-31/12/2018
Description	<p>Project funded by the EU Instrument contributing to Stability and Peace.</p> <p>This project aims to:</p> <p>Improve regional management of outbreaks in the CBRN Centres of Excellence Partner Countries of the African Atlantic Façade;</p> <p>Prevent biological risks and enhance management of epidemic crises;</p> <p>Develop a coordinated ministerial response;</p> <p>Consideration and preparation of the population; and</p> <p>Strengthen cross-border cooperation.</p>
<i>Project Title</i>	<i>CBRN 33. Strengthening the National CBRN Legal Framework &amp; Provision of specialized and technical training to enhance CBRN preparedness and response capabilities</i>
Partner Country/Region	Burundi, Gabon, Kenya, Morocco, Mauritania, DRC, Rwanda, Senegal and Uganda
Implementing Country	<p>European Union - Leader of the Project</p> <p>France - Expertise</p> <p>Partners: FIIAPP (Spain), DGSCGC (France), Home Office (UK), ENCO, SCK-CEN (Belgium)</p>
Project Value	€2,700,000
Duration	15-Sep-13 / 15-Sep-16
Description	Project funded by the EU Instrument contributing to Stability and Peace (Priority 1), aims at awarding a contract to technically implement two projects in the framework of the Chemical, Biological, Radiological, and Nuclear - Centres of Excellence (CBRNCoE).
<i>Project Title</i>	<i>Longitudinal Study of FMD Vaccinated and Unvaccinated Cattle in Cameroon</i>
Partner Country/Region	Cameroon
Implementing Country	United States Department of Agriculture
Project Value	US\$50,000
Duration	2015-2016

<i>Project Title</i>	<i>Longitudinal Study of FMD Vaccinated and Unvaccinated Cattle in Cameroon</i>
Description	The U.S. Department of Agriculture Agricultural Research Service (USDA ARS) research cooperation with the National Veterinary Laboratory (LANAVET), leverages current collaborative research activities between ARS and Ohio State University with the goal of gaining an understanding of the ecology of infectious animal diseases in the Chad basin, including Foot-and-Mouth Disease. The overarching project goal is to provide the basic information necessary to support the progressive control of FMD in Cameroon.
<i>Project Title</i>	<i>International Cooperation with Equatorial Guinea</i>
Partner Country/Region	Equatorial Guinea
Implementing Country	Spanish Agency For International Cooperation and Development (AECID)
Project Value	€200,000
Duration	2015-2016
Description	Technical Assistance to National Programmes for Endemic Diseases Control of Ministry of Health, Equatorial Guinea and support for Strategic Programmes of Malaria, Neglected Tropical Diseases, HIV/AIDS and TB.
<i>Project Title</i>	<i>Strengthening of Community Health Systems for Infectious Diseases Control</i>
Partner Country/Region	Eritrea, Ethiopia, Kenya, Nigeria, Sudan and Uganda
Implementing Country	Japan
Project Value	in-kind contribution
Duration	2015-2016
Description	Strengthen public health countermeasure by support to regional health system, human resource management and regional resource management.
<i>Project Title</i>	<i>Project for Establishment of Laboratory Surveillance System for Viral Diseases of Public Health Concern</i>
Partner Country/Region	Gabon
Implementing Country	Japan
Project Value	in-kind contribution
Duration	2015-2016
Description	To enhance research and development capability of the laboratory in Gabon through joint research on smooth

<i>Project Title</i>	<i>Project for Establishment of Laboratory Surveillance System for Viral Diseases of Public Health Concern</i>
	diagnosis of viral hemorrhagic fever, unidentified infectious disease and virus infectious disease.
<i>Project Title</i>	<i>Strengthening Biological Security in Ghana</i>
Partner Country/Region	Ghana
Implementing Country	Canada - Global Partnership Program Global Affairs Canada
Project Value	C\$4,400,000
Duration	2012-2016
Description	Canada implemented biosecurity and biocontainment measures at three facilities of Ghana's Veterinary Services Directorate (VSD) lab network. These projects, which included the provision of fully-equipped modular laboratories at three different sites, aim to better secure dangerous pathogens of terrorism and proliferation concern and to provide the VSD with the capability to rapidly diagnose emerging and re-emerging zoonotic disease in a safe and controlled environment. Canada provided ongoing maintenance and operational support through 2016 to ensure the new facilities achieves the objective of strengthened biological security and disease diagnostics capacity.
<i>Project Title</i>	<i>Strengthening IHR implementation</i>
Partner Country/Region	Ghana, Malawi, Moldova
Implementing Country	Norway
Collaborating Institution or Partner(s)	Norwegian Institute of Public Health Ghana Health Service, Public Health Division Public Health Institute of Malawi National Centre of Public Health, Moldova Palestinian National Institute of Public Health
Project Value	NOK 18,766 741 (~US\$2.3 mill) in 2015-2016
Duration	2015-2019
Description	The International Health Regulations 2005 (IHR) were developed to detect, assess and respond to urgent health threats. Implementation of these regulations has been slow, with only 42 out of 194 countries fulfilling WHO requirements. The Norwegian Institute of Public Health has established a programme aimed at strengthening IHR implementation. The programme is being carried out in collaboration with partner institutions in other countries. The objective is to improve

<i>Project Title</i>	<i>Strengthening IHR implementation</i>
	health preparedness and to build capacity in detecting and managing crises and disease outbreaks, on a daily basis as well as during emergencies. This project supports the Global Health Security Agenda.
<i>Project Title</i>	<i>OIE Laboratory Twining Contract between UCM (OIE Reference Laboratory for African Swine Fever) and Central Veterinary Laboratory-Kabete (Kenya)</i>
Partner Country/Region	Kenya, Central Veterinary Laboratory-Kabete
Implementing Country	Spain - Complutense University of Madrid World Organisation for Animal Health (OIE)
Project Value	€28,300
Duration	2013-2015
Description	New challenges and measures to prevent the spread of African Swine Fever and the development of new diagnostic methods.
<i>Project Title</i>	<i>The Danish Partnership Programme on Biosecurity in East Africa</i>
Partner Country/Region	Kenya, with the aim of expanding activities to other countries in East Africa
Implementing Country	Denmark
Collaborating Institution or Partner(s)	National Commission for Science, Technology and Innovation in Kenya (NACOSTI) Ministry of Education, Science and Technology in Kenya (MOEST) Ministry of Health (MOH) in Kenya International partners.
Project Value	~US\$2.3 million
Duration	2014-2016/2016-2019
Description	The purpose of the programme is to contribute to the development of national biosecurity and biopreparedness systems to reduce the risk and consequences of biological events. Results from the first phase of the programme include but are not limited to:  Publication of the book "An efficient and practical approach to Biosecurity".  Support to development of biosecurity policy, legislation and work plan.  Capacity building  Development of gap survey report on biosecurity. The survey

<i>Project Title</i>	<i>The Danish Partnership Programme on Biosecurity in East Africa</i>
	<p>report has been transformed into an article published in the international journal Health Security.</p> <p>In continuation of the first phase, the second phase focuses on support to policy, legislation, capacity building in biosecurity and biopreparedness, awareness raising and regionalization.</p>
<i>Project Title</i>	<i>Cooperative Biological Engagement Program in Sub Saharan Africa</i>
Partner Country/Region	Kenya, Uganda, Liberia, Sierra Leone, Guinea, Senegal, Ethiopia, South Africa, Cameroon and Tanzania
Implementing Country	The United States Department of Defense Cooperative Threat Reduction Program
Collaborating Institution or Partner(s)	<p>National Ministries of health, agriculture, emergency services, education and science, and defense from participating African countries</p> <p>World Health Organization (WHO)</p> <p>World Organisation for Animal Health (OIE)</p> <p>Food and Agriculture Organisation (FAO) of the United Nations</p> <p>GHSA coordination groups</p> <p>United States Centers for Disease Control (CDC)</p>
Project Value	US\$58,000,000
Duration	FY2016
Description	<p>Overall: Enhance capabilities to safely and securely detect, diagnose, and report outbreaks of diseases of security concern, in a timely manner, and in accordance with international requirements such as the International Health Regulations (2005), the World Organization for Animal Health reporting requirements, and Global Health Security Agenda objectives.</p> <p>Specific activities per country:</p> <p>Kenya: Advance biosafety, biosecurity, biosurveillance capacity through the provisioning of equipment and infrastructure upgrades. Assist with the consolidation of especially dangerous pathogens to a minimum number of secured facilities. Field Epidemiology Training.</p> <p>Uganda: Advance biosafety, biosecurity, biosurveillance capacity through the provisioning of equipment and infrastructure upgrades. Field Epidemiology Training.</p> <p>Liberia: Improve laboratory diagnostic capabilities and capacities through the provision of appropriate training and equipment.</p> <p>Sierra Leone: Improve laboratory diagnostic capabilities and</p>



<i>Project Title</i>	<i>Cooperative Biological Engagement Program in Sub Saharan Africa</i>
	capacities through the provision of appropriate training and equipment.
	Guinea: Improve laboratory diagnostic capabilities and capacities through the provision of appropriate training and equipment.
	Senegal: Design, construct, and equip a Ministry of Health Emergency Operations Center to improve biosurveillance capabilities.
	Ethiopia: Identify gaps in human and animal biosurveillance systems, including those aspects related to biosafety and biosecurity.
	South Africa: Augment and solidify Gabon's position as regional leader in the fields of clinical, epidemiological and research expertise to reduce risk of spread of diseases of security concern.
	Cameroon: Design, construct, and equip a Ministry of Health Emergency Operations Center to improve biosurveillance capabilities.
	Tanzania: Establish multi-sectoral One Health Working groups; research.
	Regional: Strengthen linkages and facilitate the adoption of best practices related to BS&S and biosurveillance and support activities executed and sustained by relevant regional organizations

<i>Project Title</i>	<i>Development of a National Biosafety and Biosecurity System in Mali</i>
Partner Country/Region	Mali
Implementing Country	Canada - Global Partnership Program Global Affairs Canada
Collaborating Institution or Partner(s)	International Federation of Biosafety Associations (IFBA)
Project Value	C\$236,000
Duration	2016-2018
Description	This Project will support the Government of Mali to develop a comprehensive national biosafety and biosecurity system.

<i>Project Title</i>	<i>CBRN 35. Management of Hazardous Chemical and Biological Waste in the African Atlantic Façade Region and in Tunisia</i>
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<i>Project Title</i>	<i>CBRN 35. Management of Hazardous Chemical and Biological Waste in the African Atlantic Façade Region and in Tunisia</i>
Partner Country/Region	Mauritania, Morocco, Ivory Coast, Gabon, Liberia, Senegal, Tunisia & Togo
Implementing Country	European Union - Leader of the Project Spain – FIIAPP Partners - Italy (ICIS), Spain (AENOR) and Germany (GRS)
Project Value	€3,871,800
Duration	01-Jan-14 / 01-Jul-17
Description	Project funded by the EU Instrument contributing to Stability and Peace.  The objective of this project is to enhance (or initiate) best practices in hazardous chemical and biological (CB) waste management in the AAF region and in Tunisia. In terms of content, aspects related to sampling, detection, measurement, protection, decontamination, mitigation, transport, containment, site remediation and disposal should be considered in each country (tailored approach), while keeping a regionally consistent approach as much as possible. This will include the elaboration of comprehensive standard procedures and technology solutions for CB.
<i>Project Title</i>	<i>Morocco Field Epidemiological Training Program</i>
Partner Country/Region	Morocco
Implementing Country	The United Kingdom, through the Ministry of Defence
Collaborating Institution or Partner(s)	Centers for Disease Control and Prevention (CDC) (through US State Department)
Project Value	US\$254,100
Duration	2010-2016
Description	The Moroccan FETP began in 2010 as a collaborative project between the DHHS/CDC and the Morocco MOH through support from the State Department. It is a two-year in-service training program in applied epidemiology and public health practice, modeled after DHHS/CDC's Epidemic Intelligence Service. The program is housed within the Institut National de l'Administration Sanitaire (INAS), an educational institute within the Moroccan MOH. Upon completion of the program requirements, MOH professionals will receive a Master's degree in Field Epidemiology from INAS and are expected to work a minimum of eight years for the Moroccan MOH. This program builds lasting capacity of the MOH of Morocco, increases surveillance and control within the country, institutionalizes biosafety and biosecurity best practices within

<i>Project Title</i>	<i>Morocco Field Epidemiological Training Program</i>
	<p>the region and offers a platform for regional activities to address health security priorities. It will also strengthen Moroccan disease detection and response systems, both at the sub-national and district-level. The main priorities for this project include supporting the transition of the program to sharing responsibility between INAS and the Directory of Epidemiology and Fight Against Diseases (DELM) in the MOH for greater long-term sustainability, focusing on improving outbreak detection, investigation, and control times, initiating sub-national training in Morocco for improved outbreak detection and control throughout the country and including high-risk border regions, establishing safe and secure laboratory-based disease detection and identification in Morocco, fostering collaboration on high-consequence zoonosis, institutionalizing biosafety and biosecurity best practices in field epidemiology.</p> <p>Key activities include:</p> <p>Provide at least one training for Moroccan public health officials on the importance of biorisk management best practices;</p> <p>At least two presentations by FETP cohort members at national and international conferences disseminating research findings related to outbreaks of high consequence pathogens;</p> <p>Resident Advisor in place to oversee FETP technical activities.</p>
<i>Project Title</i>	<i>Strengthening Biological Security in Nigeria</i>
Partner Country/Region	Nigeria
Implementing Country	Canada - Global Partnership Program Global Affairs Canada
Collaborating Institution or Partner(s)	Nigeria's National Veterinary Research Institute (NVRI)
Project Value	C\$2,150,000
Duration	2012-2016
Description	Canada implemented urgently-needed biosecurity and biosafety improvements and provided disease diagnostics capacity at a veterinary facility in central Nigeria. The construction phase of the Project was completed in 2015 and the Facility was officially handed over to the Government of Nigeria in February 2016. GPP is providing ongoing maintenance and operational support through 2016 to ensure the new facility achieves its objective of strengthened biological security and disease diagnostics capacity.

<i>Project Title</i>	<i>Design of a Laboratory and Biobank for Lagos State</i>
Partner Country/Region	Lagos State, Nigeria
Implementing Country	Canada - Global Partnership Program Global Affairs Canada
Project Value	C\$425,000
Duration	2016-2017
Description	As part of an overall request received from Lagos State, Canada has committed to produce a detailed design for a new modular biological laboratory and associated Biobank to be operated by the Lagos State Ministry of Health. The objective of the new facility will be to ensure enhanced readiness for future outbreaks of infectious diseases such as Ebola or Lassa Fever.
<i>Project Title</i>	<i>Ebola Biosecurity Sample Rescue, Inventory &amp; Containment Project</i>
Partner Country/Region	Sierra Leone
Implementing Country	Canada - Global Partnership Program Global Affairs Canada
Collaborating Institution or Partner(s)	Government of Sierra Leone Global Emerging Pathogens Treatment (GET) Consortium
Project Value	C\$1,700,000
Duration	2016-2017
Description	While the 2014-15 Ebola outbreak in West Africa was naturally-occurring, any outbreak of this especially dangerous pathogen raises significant security concerns, including illicit sample acquisition opportunities. In this regard, Canada is working with the Government of Sierra Leone and the Global Emerging Pathogens Treatment Consortium (GET) to locate, assess, prioritise and destroy or consolidate all Ebola samples in the country. Phase I activities (March-August 2016, \$650K) included reconnaissance and data collation at priority laboratories, biosecurity training, identification of three temporary repository sites & support and conduct of the 2nd African Conference on Emerging Infectious Disease and Biosecurity (Lagos, 27-29 July). Phase II (Sept-Dec, \$1.05M) will finalise data collection, effect temporary consolidation of samples at three sites and design a biobank/lab for securing all samples in an anticipated Phase III, to be initiated in 2017.
<i>Project Title</i>	<i>Strengthening Biosecurity and Biosafety at South Africa's National Institute for Communicable Diseases (NICD)</i>

<i>Project Title</i>	<i>Strengthening Biosecurity and Biosafety at South Africa's National Institute for Communicable Diseases (NICD)</i>
Partner Country/Region	South Africa
Implementing Country	Canada - Global Partnership Program Global Affairs Canada
Collaborating Institution or Partner(s)	South Africa - National Institute for Communicable Diseases (NICD)
Project Value	C\$1,950,000
Duration	2016-2018
Description	Through this project, Canada and South Africa are collaborating to strengthen biological safety and biological security at NICD.
<i>Project Title</i>	<i>Support to European and Developing Countries Clinical Trials Partnership (EDCTP)</i>
Partner Country/Region	Sub Saharan Africa
Implementing Country	Sweden through the EDCTP
Project Value	€6,186,000 (SEK 60,000,000)
Duration	2012-2016
Description	EDCTP is a public-public partnership between 14 countries in Europe, 14 in sub-Saharan Africa (SSA), and the European Union. EDCTP aims to support collaborative research that accelerates the clinical development of new or improved interventions to prevent or treat HIV/AIDS, tuberculosis, malaria and poverty-related diseases (PRD) in Sub Saharan Africa.
<i>Project Title</i>	<i>Focal Partnerships within the German Partnership for Excellence in Biological and Health Security</i>
Partner Country/Region	Tunisia, Sudan, Morocco
Implementing Country	Germany
Collaborating Institutions	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH and Robert Koch-Institut
Project Value	€13,000,000
Duration	2013-2016
Description	<i>The German Partnership Program for Excellence in Biological and Health Security was launched by the German Federal Foreign Office within the framework of its engagement in the Global Partnership. It is part of the Federal Government's</i>

Project Title	<i>Focal Partnerships within the German Partnership for Excellence in Biological and Health Security</i>
	<p>preventive security policy. The goal is to minimise the risks associated with biological substances and pathogens. A further aim is to strengthen public health and promote a responsible approach to research and research findings in partner countries. It is implemented by leading German research institutions and has a total budget of over 24 million Euros for three years (2013-2016).</p>
	<p>In the focal countries <i>Tunisia, Morocco</i> and <i>Sudan</i> the program cooperates with the respective Health Ministries and subordinated central laboratories and institutions. Activities are implemented within the whole thematic range of the program and according to specific needs. Examples are:</p>
	<p><i>Awareness raising:</i> Implementation of a national risk communication system for biological threats, including policy advising, media and communication trainings etc.;</p>
	<p><i>Biosafety and biosecurity:</i> Bio risk management courses and good laboratory practice course; lab organization support; provision of adequate lab equipment and consumables;</p>
	<p><i>Surveillance:</i> Implementation of SOPs and fail-proof surveillance data exchange systems;</p>
	<p><i>Detection and diagnostics:</i> Training in safe and reliable diagnostics; guidance and support (experts, equipment, consumable) for ongoing diagnostic challenges, e.g. for Lassa virus in Morocco and Dengue fever in Sudan;</p>
	<p><i>Networking:</i> Establishing laboratory networks (e.g. area specific, issue specific, national- and country-level); establishing and training national preparedness plans for biological threats;</p>
	<p><i>Capacity development:</i> Policy advisory and ‘ignition’ conferences and workshops towards national biosafety and biosecurity policy in the health sector; support for planning, monitoring and evaluation methods and tools for executives concerned with biosafety and biosecurity.</p>

## Americas

Project Title	<i>Role of Local and Systemic Immunity in the Protection against Virulent FMDV Challenge by the Oronasal Route in Cattle</i>
Partner Country/Region	Argentina
Implementing Country	United States Department of Agriculture
Project Value	US\$65,357

<i>Project Title</i>	<i>Role of Local and Systemic Immunity in the Protection against Virulent FMDV Challenge by the Oronasal Route in Cattle</i>
Duration	2016-2019
Description	USDA ARS and the Center for Research in Veterinary and Agronomic Sciences (CICVyA), INTA, are studying the separate responses induced by parenteral FMD vaccination at the systemic and respiratory tract levels. This information will be helpful for vaccine design and may provide new insights for efficacy evaluation in newly developed vaccines in the natural host.
<i>Project Title</i>	<i>Evolution of Influenza A virus in Swine in Brazil</i>
Partner Country/Region	Brazil
Implementing Country	United States Department of Agriculture
Project Value	US\$50,000
Duration	2015-2016
Description	USDA ARS, EMBRAPA Swine and Poultry, Brazil, and University of Cambridge, United Kingdom are collaborating to use advanced phylogenetic analyses, protein modeling, and antigenic cartography resources to further characterize influenza A viruses from swine in Brazil.
<i>Project Title</i>	<i>Enhanced Biological Security and Disease Surveillance in the Caribbean</i>
Partner Country/Region	Caribbean
Implementing Country	Canada - Global Partnership Program Global Affairs Canada
Collaborating Institution or Partner(s)	Caribbean Public Health Agency (CARPHA)
Project Value	C\$2,500,000
Duration	2012-2016
Description	To strengthen biosafety and biosecurity capabilities in the Caribbean, Canada's Global Partnership Program has provided a fully-equipped modular biosafety level three (BSL3) laboratory to the Caribbean Public Health Agency (CARPHA) in Trinidad and Tobago. This new Laboratory was completed in January 2014 and formally handed over to CARPHA by the Government of Canada on 12 May 2014. GPP is providing ongoing maintenance and operational support to CARPHA to ensure the new facility achieves its objective of strengthening biological security and disease diagnostics capacity in the

<i>Project Title</i>	<i>Enhanced Biological Security and Disease Surveillance in the Caribbean</i>
	Caribbean region.
<i>Project Title</i>	<i>Bioterrorism Preparedness and Response Training</i>
Partner Country/Region	Central America, South America and Caribbean
Implementing Country	Canada - Global Partnership Program Global Affairs Canada
Collaborating Institution or Partner(s)	Secretariat of the Inter-American Committee against Terrorism (CICTE) of the Organization of American States (OAS)
Project Value	C\$2,076,000
Duration	2008-2016
Description	Through this Project, GPP assisted OAS/CICTE Member States better prepare to deal with potential terrorist incidents by engaging senior policy-makers in realistic table-top exercises designed to bring specific issues of contingency planning and threat mitigation to their attention, with the goal of helping them to prepare or improve existing, formal terrorist contingency plans and promote interagency coordination to implement those plans.
<i>Project Title</i>	<i>IHR-PVS Pathway National Bridging One Health Workshop in Costa Rica</i>
Partner Country/Region	Costa Rica
Implementing Country	Canada - Global Partnership Program Global Affairs Canada Canada
Collaborating Institution or Partner(s)	World Organisation for Animal Health (OIE)
Project Value	C\$43,500
Duration	2015-2016
Description	Canada is supporting OIE's efforts to enhance multisectoral collaboration and coordination between health, animal and security sectors to better prevent, detect, and respond to biological threats in Costa Rica. By supporting an improvement in the containment of biological threats, the Project will enhance national and regional border security and contribute to the fulfilment of commitments made under the Global Health Security Agenda (GHSa).
<i>Project Title</i>	<i>ViroRed</i>
Partner Country/Region	Ecuador, Brazil, Perú, Bolivia, Paraguay, Argentina, Uruguay, México, Guatemala, Nicaragua, Costa Rica, Panamá,



<i>Project Title</i>	<i>ViroRed</i>
	Venezuela, Colombia and Portugal
Implementing Country	Spain (CYTED)
Project Value	€180,000
Duration	2010-2016
Description	<p>The increase of travels and the speed of communications make respiratory and arthropod-borne viruses common problems for the entire world.</p> <p>ViroRed is a laboratory network involving many countries from Latin America, Spain and Portugal. The activities of ViroRed are mainly focused in implementing and improving diagnostic capacities of these viruses, by means of educational and technological approaches.</p>
<i>Project Title</i>	<i>Pilot Agricultural Research Project to Mitigate High-Consequence Threat of Heartwater Vector to US Animal Health</i>
Partner Country/Region	Guadeloupe
Implementing Country	United States Department of Agriculture
Project Value	US\$50,000
Duration	2015-2018
Description	USDA ARS and CIRAD in Guadeloupe are collaborating on this project to counter heartwater (HW), a tick-borne rickettsial disease that affects livestock and wildlife.
<i>Project Title</i>	<i>OIE Veterinary Legislation Support Programme in Americas</i>
Partner Country/Region	Latin America: Belize, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Mexico, Nicaragua and Panama
Implementing Country	Canada - Global Partnership Program Global Affairs Canada
Collaborating Institution or Partner(s)	World Organisation for Animal Health (OIE)
Project Value	C\$250,000
Duration	2016-2018
Description	Canada is supporting OIE's efforts to integrate considerations pertaining to biological threat reduction into Veterinary Legislation Support Programme (VLSP) veterinary legislation identification missions, and to raise awareness and facilitate expanded communication between relevant agencies in the

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<i>Project Title</i>	<i>OIE Veterinary Legislation Support Programme in Americas</i>
	Regional International Organization for Plant Protection and Animal Health (OIRSA) countries relative to biological threat reduction. The expected result of this project is to strengthen regional health security and improve the preparedness of nations for biological threat reduction by enhancing the veterinary legislative basis in countries of the Americas.

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<i>Project Title</i>	<i>Global Parliamentary Forum to Strengthen the Implementation of the TWC in Latin America</i>
Partner Country/Region	Latin America and Caribbean
Implementing Country	Canada - Global Partnership Program Global Affairs Canada
Collaborating Institution or Partner(s)	Parliamentarians for Global Action (PGA)
Project Value	C\$90,000
Duration	2015-2016
Description	To support PGA's efforts to convene a Global Parliamentary Forum  to Promote Universality and National Implementation of the Biological Weapons Convention in San Salvador, El Salvador, and to contribute to the universalization and implementation of the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Biological and Toxin Weapons.

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<i>Project Title</i>	<i>Strengthening Export Controls and Border Security in the Americas and the Caribbean</i>
Partner Country/Region	Latin America and Caribbean
Implementing Country	Canada - Global Partnership Program Global Affairs Canada
Collaborating Institution or Partner(s)	United Nations Regional Centre for Peace, Disarmament and Development in Latin America and the Caribbean (UNLIREC) Organisation of American States (OAS) UNSCR 1540 Committee BTWC ISU VERTIC Wilton Park

<i>Project Title</i>	<i>Strengthening Export Controls and Border Security in the Americas and the Caribbean</i>
Project Value	C\$5,900,000
Duration	2015-2017
Description	<p>Canada is supporting the enhancement of export controls and border security measures to prevent the proliferation and trafficking of weapons of mass destruction (WMDs), their means of delivery and related materials, including enhanced implementation of strategic trade domestic controls of chemical, biological, radiological and nuclear (CBRN) materials. In the global fight against WMD proliferation, full and effective national implementation of all obligations under multilateral arms control agreements (including the adoption and application of effective export controls and border security measures) plays a critical role.</p> <p>To address these vulnerabilities, this Project is assisting partner states to establish or enhance domestic controls, adopt effective laws and implement comprehensive measures to prevent the proliferation of CBRN weapons and their means of delivery. Tailored activities include national needs assessments, development of legislative application plans and the provision of requisite equipment, training and related technical assistance to strengthen national and regional capacity to prevent, detect and respond to CBRN incidents. The Project is also supporting the development and/or enhancement of cargo targeting systems at select, high-volume Latin American and/or Caribbean ports of entry to strengthen capabilities to identify and track shipments of CBRN and other illicit goods and trade flows in and through the region. It also directly support States Parties to the BTWC to fulfill their national obligations, including by facilitating participation at BTWC Meetings (e.g. Meetings of Experts and States Parties) and convening BTWC workshops and events, including a Global Parliamentary Forum on Universality and Implementation of the BTWC in San Salvador, El Salvador on December 1, 2015 and a Wilton Park Conference on <i>Strengthening Strategic Trade Controls in the Caribbean: preventing WMD proliferation and safeguarding Borders</i>, held in Bridgetown, Barbados, 4-6 October 2016.</p>
<i>Project Title</i>	
Implementing Country	Mexico
Duration	17 - 29 de mayo de 2016
Description	Participación en curso para implementación de técnicas y actualización de conocimientos en Micro arreglos de ADN y

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*Project Title*

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bioinformática.

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*Project Title*

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Implementing Country Mexico

Duration 2016

Description Reconocimiento de las Principales Enfermedades Exóticas y Emergentes de los Animales, su Vigilancia, Prevención y Control para forjar en los alumnos conciencia sobre la importancia que tiene la notificación oportuna de las enfermedades y plagas exóticas de los animales. Capacitación teórica de 1,333 alumnos para alumnos de medicina veterinaria y zootecnia o carreras afines.

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*Project Title*

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Implementing Country Mexico

Duration 2016

Description Seminario Ejercicio Simulacro sobre las Principales Enfermedades Exóticas de los Animales, los Sistemas y Planes de Emergencia (AUTOSIM I) para generar recursos humanos capacitados para vigilar, prevenir, diagnosticar, controlar y en su caso erradicar las principales enfermedades y plagas exóticas de los animales. Capacitación teórica de 46 participantes con un ejercicio simulacro sobre fiebre aftosa, dirigido a personal de instituciones federales, estatales y/o municipales involucrados con la sanidad animal.

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*Project Title*

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Implementing Country Mexico

Duration 2016

Description Seminario Ejercicio Simulacro sobre los Sistemas y Planes de Emergencia aplicados al sector acuícola (AUTOSIM II) con el objetivo de generar recursos humanos capacitados para vigilar, prevenir, diagnosticar, controlar y en su caso erradicar enfermedades del sector acuícola. Capacitación teórica de 17 participantes con un ejercicio simulacro sobre enfermedades del sector acuícola, dirigido a personal de instituciones federales, estatales y/o municipales involucrados con la sanidad animal.

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## Asia

<i>Project Title</i>	<i>CBRN 46. Enhancement of CBRN capacities of South East Asia in addressing CBRN risk mitigation concerning CBRN first response, biosafety and biosecurity, awareness raising and legal framework</i>
Partner Country/Region	Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam
Implementing Country	European Union Spain - FIIAPP Italy - FORMIT Foundation and Luigi Sacco University Hospital
Project Value	€3,000,000
Duration	36 months (2015-2018)
Description	<p>Project funded by the EU Instrument contributing to Stability and Peace.</p> <p>Capability assessment and Capacity building in biosafety and biosecurity, including bio-risk and waste management:</p> <ul style="list-style-type: none"> <li>- Mapping of regional bio-laboratories and facilities (both public and private) including information on state of the art, available equipment and areas of expertise;</li> <li>- Organisation and provision of a training programme on biosafety, biosecurity and bio-risk management including specific training for scientists and laboratory technicians on laboratory equipment and maintenance;</li> <li>- Development of a flexible and sustainable training system applicable to a broad range of countries and government structures on biosafety and biosecurity standards and procedures in BSL2+ and BSL3 laboratories;</li> <li>- Development of a training programme for relevant experts on methodology to design, build, and monitor high level security containment biological laboratories (BSL2+ and BSL3);</li> <li>- Development of a training programme for laboratory experts on guidance and regulations (WHO/HSE/GCR/2012.12) concerning the transport of infectious substances;</li> <li>- Development of a training programme for laboratory experts on safety and security procedures related to the management of biological waste;</li> <li>- Organisation of workshops to improve regional cooperation and harmonisation with international standards on the safe and secure management of biological waste.</li> </ul>
<i>Project Title</i>	<i>Cooperative Biological Engagement Program in South East Asia</i>
Partner Country/Region	Cambodia, India, Indonesia, Philippines, Malaysia, Thailand, Vietnam & Laos
Implementing Country	The United States Department of Defense Cooperative Threat

<i>Project Title</i>	<i>Cooperative Biological Engagement Program in South East Asia</i>
	Reduction Program
Collaborating Institution or Partner(s)	National Ministries of Health, Agriculture and Defense of Participating South East Asia Countries  World Health Organization (WHO)  World Organisation for Animal Health (OIE)  Food and Agriculture Organisation (FAO) of the United Nations  Southeast Asia Infectious Disease Clinical Research Network;  USAID Emerging Pandemic Threats Program  United States Federal Bureau of Investigation (FBI) and Centers for Disease control (CDC)  Regional GHSA coordination groups.
Project Value	US\$41,400,000
Duration	FY2016
Description	<p>Goal: Enhance the capability of countries in the region to detect, diagnose, and report human and animal infectious diseases of security concern, and enhance associated biosafety and security capabilities to reduce the risk of accidental or intentional release of pathogens of security concern.</p> <p>Specific activities include:</p> <ul style="list-style-type: none"> <li>• enhancing disease detection and reporting through infrastructure improvements, training, and sustainment;</li> <li>• enhancing biosafety and biosecurity through infrastructure improvements, training, and sustainment;</li> <li>• conducting joint research projects to prevent proliferation of pathogens of security concern;</li> <li>• collaborating with the melioidosis Research Coordinated Network. Funded programs to enhance awareness of melioidosis prevalence in Southeast Asia. Facilitated collaboration between Southeast Asia researchers, health implementers and U.S. funding programs that will lead to improved melioidosis surveillance and reporting mechanisms;</li> <li>• conducting second inter-regional bat-borne pathogen surveillance training in Singapore to improve understanding and awareness of potential emerging diseases of security concern; and</li> <li>• coordinating with the Lower Mekong Initiative (LMI) Health Pillar Working Group and supported the LMI exercise to evaluate bio-readiness plans and policies of LMI members.</li> </ul> <p>enhancing the region’s capability to detect, diagnose, and report human and animal infectious diseases of security</p>

<i>Project Title</i>	<i>Cooperative Biological Engagement Program in South East Asia</i>
	concern
<i>Project Title</i>	<i>Operation Petrichor: Cross-border Collaboration on Biological Threat Mitigation</i>
Partner Country/Region	Cambodia, Laos, Myanmar, and Vietnam
Implementing Country	Canada - Global Partnership Program Global Affairs Canada
Collaborating Institution or Partner(s)	International Criminal Police Organization (INTERPOL)
Project Value	C\$500,000
Duration	2015 – 2017
Description	To develop cross-border collaboration to better manage infectious diseases at borders in Southeast Asia in order to reduce the risk of criminal or proliferation activities related to biological materials. The expected outcome of this project is to enhance the capacity of Cambodia, Laos, Myanmar and Vietnam to better prevent, detect and respond to trans-boundary infectious disease biological threats, whether deliberately caused or naturally occurring, on both a national and regional basis.
<i>Project Title</i>	<i>Service Related to African Swine Fever Epidemiology and Risk Assessment Capacity Building in People's Republic of China</i>
Partner Country/Region	China
Implementing Country	Spain
Collaborating Institution or Partner(s)	Food and Agriculture Organisation (FAO) of the United Nations
Project Value	€19,689
Duration	2014-2015
Description	Development of new diagnostic molecular methods. Development of different epidemiological models on the risks of entry different infectious diseases in China, by identifying the critical points of each disease and modeling their potential spread. The diseases being studied are classified in the list of diseases notifiable to the World Organization for Animal Health (OIE).
<i>Project Title</i>	<i>Translational Research to Combat Antimicrobial Resistance in India</i>
Partner Country/Region	India

<i>Project Title</i>	<i>Translational Research to Combat Antimicrobial Resistance in India</i>
Implementing Country	Spain - Science and Innovation Ministry
Project Value	€97,900
Duration	2012-2015
Description	Surveillance programs in Antimicrobial Resistance (AMR). Microorganisms are obtained in active sampling conducted. Clinical isolates are performed with bacterial collections isolates that show a resistance phenotype of interest to public health or animal health, are analyzed in depth using molecular techniques (molecular detection, sequencing, etc.). Linking antimicrobial resistance seen in animals, food and man, including samples of the environment and wildlife.
<i>Project Title</i>	<i>Project for Enhancing the Early Warning and Response System of Infectious Disease</i>
Partner Country/Region	Indonesia
Implementing Country	Japan
Project Value	in-kind contribution
Duration	2015-2016
Description	To strengthen monitoring and evaluation capability of the early warning and response system of infectious disease of the department of health.
<i>Project Title</i>	<i>Mitigating Biological Security Risks in the ASEAN region</i>
Partner Country/Region	Association of Southeast Asian Nations (ASEAN) Member countries (Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand & Vietnam)
Implementing Country	Canada - Global Partnership Program Global Affairs Canada
Collaborating Institution or Partner(s)	Association of South-East Asian Nations (ASEAN) Secretariat Mekong Basin Disease Surveillance Network (MBDS) BlueDot Health System Research Institute (HSRI), Thailand International Federation of Biosafety Associations (IFBA) Research Institute for Tropical Medicine (RITM), Philippines INTERPOL World Health Organization (WHO)



<i>Project Title</i>	<i>Mitigating Biological Security Risks in the ASEAN region</i>
Project Value	C\$11,679,800
Duration	2013-2018
Description	<p>In partnership with ASEAN member countries, Canada is implementing a program of work to strengthen capacities to detect, rapidly identify and diagnose highly dangerous pathogens and emerging infectious diseases (e.g. Ebola, MERS-CoV) that present regional and global threats. Specific project activities and implementing partners include:</p> <p>Strengthening the Emerging and Dangerous Pathogens Laboratory Network (EDPLN) in Asia, in partnership with the World Health Organization and the ASEAN Plus Three Partnership Laboratories (APL) network;</p> <p>Establishing an early warning and disease surveillance system in the region (BlueDot);</p> <p>Enhancing ties and collaboration between the Mekong Basin Disease Surveillance Network (MBDS) and the Asia Partnership on Emerging Infectious Disease Research (APEIR);</p> <p>Field Epidemiology Training (FETN);</p> <p>INTERPOL training on Safety, Security and Surveillance of Microbiological Materials and Emerging Technologies (S3OMMET);</p> <p>Strengthening Bio Threat Surveillance in Cambodia, Laos PDR, Myanmar and Vietnam (CLMV) Countries (MBDS);</p> <p>Biosafety Engineering and Control for Health Laboratories in ASEAN (MOH Thailand);</p> <p>ASEAN Emergency Operations Center (EOC) Network Development and Activities (MOH Malaysia);</p> <p>Strengthening Biosafety and Biosecurity (MoH Laos PDR);</p> <p>Strengthening Biosafety &amp; Biosecurity Competency in South East Asia (IFBA);</p> <p>Strengthen Response Capabilities for Emerging and Re-emerging Disease at the Research Institute for Tropical Medicine in Philippines.</p>

## **Eurasia/Central Asia**

<i>Project Title</i>	<i>Cooperative Biological Engagement Program in Eastern Europe and Eurasia</i>
Partner Country/Region	Armenia, Azerbaijan, Georgia, Kazakhstan, Ukraine and Uzbekistan

<i>Project Title</i>	<i>Cooperative Biological Engagement Program in Eastern Europe and Eurasia</i>
Implementing Country	The United States Department of Defense Cooperative Threat Reduction Program
Collaborating Institution or Partner(s)	National Ministries of health, agriculture, emergency services, education and science, and defense in participating countries World Health Organization (WHO) World Organisation for Animal Health (OIE) Food and Agriculture Organisation (FAO) of the United Nations GHSA coordination groups United States Centers for Disease Control (CDC)
Project Value	US\$98,800,000
Duration	FY2016
Description	Armenia: Enhancing disease detection and reporting, enhancing biosafety and biosecurity, and conducting joint research projects to prevent proliferation of pathogens of security concern.  Azerbaijan: Enhancing disease detection and reporting, enhancing biosafety and biosecurity, and conducting joint research projects to prevent proliferation of pathogens of security concern.  Georgia: Enhancing disease detection and reporting, enhancing biosafety and biosecurity and conducting joint research projects to prevent proliferation of pathogens of security concern.  Kazakhstan: Enhancing disease detection and reporting, enhancing biosafety and biosecurity, and conducting joint research projects to prevent proliferation of pathogens of security concern.  Ukraine: Enhancing disease detection and reporting, enhancing biosafety and biosecurity, and conducting joint research projects to prevent proliferation of pathogens of security concern.  Uzbekistan: Enhancing disease detection and reporting and enhancing biosafety and biosecurity.  Regional: Strengthen linkages and facilitate sharing of BS&S and biosurveillance best practices between partner countries.
<i>Project Title</i>	<i>Improving Biological Safety, Security and Capabilities/Capacities in the Caucasus to Reduce International Biological Risks</i>
Partner Country/Region	Countries within the Caucasus – primarily Georgia and Azerbaijan

<i>Project Title</i>	<i>Improving Biological Safety, Security and Capabilities/Capacities in the Caucasus to Reduce International Biological Risks</i>
Implementing Country	United Kingdom, through the International Biological Security Programme, Counter Proliferation & Arms Control Centre (CPACC), Ministry of Defence (MoD)
	<i>Note – a number of projects are jointly funded with or conducted in support of other GP members programmes; unless otherwise specified, the costs shown here represent the UK funding contribution.</i>
Collaborating Institution or Partner(s)	University of Cambridge, UK Animal and Plant Health Agency (APHA), UK Public Health England (PHE), UK; Department of Defense (DoD), Defense Threat Reduction Agency (DTRA), US; with the Defence Science and Technology Laboratory (Dstl), UK, implementing the projects for CPACC.
Project Value	£850,000
Duration	2010 – 2016/2017
Description	In partnership with countries in the Caucasus, and working jointly with or in support of other GP members' programmes, the UK is implementing a number of projects to improve biological safety and security and to strengthen capacities to detect, rapidly identify and diagnose highly dangerous pathogens and emerging infectious diseases that present regional and global threats. Specific project activities and implementing partners include:  Biological characterisation and phylogeographic analyses of avian influenza virus (AIV) and the establishment of the population genetics structure of the host species (approx. £300K for 3 year project) – provision of support from the UK's University of Cambridge and APHA.  Rabies in Georgia: Research and Technical Assistance – UK APHA providing support to develop improved in-country capability to detect and diagnose rabies (£100K over 3 years).  Building veterinary capacity in Azerbaijan through engagement with rabies activities (£80K over 2 years) - UK APHA providing support to develop improved in-country capability to detect and diagnose rabies.  Assessing the seroprevalence and genetic diversity of Crimean-Congo haemorrhagic fever virus (CCHFV) and Hantaviruses in Georgia (£150K for phase 1 activities and £25K for phase 2). Support to a larger DTRA funded project to establish collaborative research on seroprevalence and genetic diversity of highly pathogenic viruses.  Investigation of mosquito- and tick-borne arboviruses in north and south eastern Azerbaijan (£170K for phase 1 activities and £30K for phase 2) to ensure scientists are actively involved in

<i>Project Title</i>	<i>Improving Biological Safety, Security and Capabilities/Capacities in the Caucasus to Reduce International Biological Risks</i>
	international scientific community and to develop in-country diagnostic capacity building. This builds on previous training and support to larger DTRA programme.
<i>Project Title</i>	<i>Improving Biological Safety, Security and Capabilities/Capacities in Central Asia to Reduce International Biological Risks</i>
Partner Country/Region	Central Asia
Implementing Country	United Kingdom, through the International Biological Security Programme, Counter Proliferation & Arms Control Centre (CPACC), Ministry of Defence (MoD).
	<i>Note – a number of projects are jointly funded with other GP members; unless otherwise specified, the costs shown here represent the UK funding contribution.</i>
Collaborating Institution or Partner(s)	Includes (but not limited to): International Science and Technology Centre (ISTC); Eagleson Institute, US; Animal and Plant Health Agency (APHA), UK; University of Surrey, UK; US Centers for Disease Control and Prevention (CDC); US Armed Forces Institute of Medical Research (AFRIMS), Thailand; Fera Science Limited, UK; State Sanitary Epidemiological Surveillance Service (SSESS), Tajikistan; National Centre for Veterinary Diagnostics (NCVD), Tajikistan; Kyrgyz Scientific Research Institute of Veterinary named after Arstanbek Duysheev, Bishkek, Kyrgyz Republic; Institute of Problems of Biological Safety, Tajikistan; with the Defence Science and Technology Laboratory (Dstl), UK, implementing the projects on behalf of CPACC.
Project Value	£1,500,000
Duration	2010 – 2016/2017
Description	<p>In partnership with countries in Central Asia, the UK is implementing a number of projects to improve biological safety and security and to strengthen capacities to detect, rapidly identify and diagnose highly dangerous pathogens and emerging infectious diseases that present regional and global threats. Specific project activities and implementing partners include:</p> <p>A biosafety cabinet maintenance project (£43K) whereby in-country scientists have been trained to maintain, test and certify microbiological safety cabinets in the Kyrgyz Republic and Tajikistan, with training provided by the Eagleson Institute.</p> <p>Joint Tajik-Afghan Field Epidemiology training programme delivered by the CDC (jointly funded by the UK IBSP and US DoD DTRA and US DoS BEP) (£1M over approx. 6 years). The project aims to help Tajikistan and Afghanistan to set up, develop and implement dynamic public and animal health</p>

<i>Project Title</i>	<i>Improving Biological Safety, Security and Capabilities/Capacities in Central Asia to Reduce International Biological Risks</i>
	<p>strategies, to improve and strengthen their public and animal health surveillance and response systems, to achieve more effective disease detection, control and prevention.</p> <p>Rabies capacity building in Tajikistan (approx. £60K) – Experts from the UK (Animal Health and Plant Agency and the University of Surrey) engaged with institutes across Tajikistan to improve Tajikistan’s cross-sectoral capacity and capability to detect, diagnose and control rabies in-country.</p> <p>Monitoring the epidemiological situation of typhoid fever in Tajikistan (£200K). An ISTC Partner Project involving AFRIMS as the expert collaborators seeking to embed modern molecular biology capabilities and improve national disease surveillance in Tajikistan by studying typhoid, a serious endemic disease.</p> <p>Potato Brown Rot in Central Asia (approx. £150K). A project to strengthen regional disease detection and monitoring capabilities to increase resilience in risk mitigation for plant pathogens, with UK expertise provided by Fera Science Ltd.</p>

<i>Project Title</i>	<i>Agricultural Capacity Building in Georgia</i>
Partner Country/Region	Georgia
Implementing Country	Sweden
Project Value	€3,096,000 (SEK 30,000,000)
Duration	2012-2016
Description	<p>The Swedish Board of Agriculture administered a capacity building project in Georgia to support the national authority responsible for food safety (ANSA) in its on-going EU-reforms. The project focused on legal approximation, institutional building, veterinary services, food safety, contingency planning and plant protection.</p> <p>Among several results, the SBA provided support to improve;</p> <p>Contingency planning focusing on improving the capacity to prevent, prepare and respond to animal disease-outbreaks. Included simulation exercise, reviews, etc.;</p> <p>Disaster risk reduction and disaster risk management approach to establishing a risk management framework. Also trainings and exercises in identifying, analysing and evaluating risk. Included antagonistic risk events;</p> <p>Assisting the purchase of a mobile incinerator.;</p> <p>Development of primary and secondary legislation related to</p>

<i>Project Title</i>	<i>Agricultural Capacity Building in Georgia</i>
	<p>food safety;</p> <p>Food control and inspection (structure and process);</p> <p>Phytosanitary and plan pests.</p>
<i>Project Title</i>	<i>Strengthening CBRN First Response Capabilities and Regional Cooperation</i>
Partner Country/Region	South East Europe, Southern Caucasus, Moldova and Ukraine
Implementing Country	The Netherlands EU Centre of Excellence
Project Value	€3,000,000
Duration	2015-2017
Description	<p>The overall objective of the project is to enhance response capabilities and promote inter-agency and regional cooperation in CBRN first response in the two sub-regions. The specific objective for the two sub-regions is to improve the preparedness and response capabilities in the participating countries to CBRN incidents by enhancing the capabilities to organise and execute table-top and field exercises, as well as train-the-trainer courses both at national and sub-regional level and the results to be achieved are:</p> <p>Assessment of the current situation including the outcomes of some specific activities obtained in the already implemented CBRN CoE projects;</p> <p>Development of guidelines and sharing of best practises on the CBRN incident response;</p> <p>List of basic equipment for first responders and technical specifications;</p> <p>Train-the-trainers and training activities on CBRN incident response for the countries in the Black Sea region;</p> <p>Strengthening inter-agency cooperation at sub-regional levels;</p> <p>Organisation of CBRN response exercises at national and sub-regional levels.</p>
<i>Project Title</i>	<i>Arboviruses and Arboviral Infections in Tajikistan (ISTC Project T-2119)</i>
Partner Country/Region	Tajikistan
Implementing Country	United Kingdom, through the International Biological Security Programme, Counter Proliferation & Arms Control Centre (CPACC), Ministry of Defence (MoD)
Collaborating Institution or Partner(s)	Defence Science and Technology Laboratory (Dstl), UK, implementing the project on behalf of CPACC

<i>Project Title</i>	<i>Arboviruses and Arboviral Infections in Tajikistan (ISTC Project T-2119)</i>
	International Science and Technology Centre (ISTC) Public Health England (PHE), UK Natural History Museum (NHM), UK Institute Zoology and Parasitology (IZP), Tajikistan Tajik Research Institute of Preventive Medicine (TRIPM)
Project Value	~ £500,000
Duration	2014 - 2017
Description	A follow-on collaborative research project, with technical expertise provided by the UK's Natural History Museum and Public Health England. This project is linking the virology expertise and capabilities with entomology expertise developed by previously funded-IBSP projects, which delivered significant improvements to the scientific capabilities, biosafety and security at key institutes in Tajikistan. The overall aims of the project are to instil safe and secure working practices and to help Tajikistan develop sustainable national surveillance and diagnostic capabilities for specific endemic viral diseases of concern. Furthermore, the project will enable validation of UK rapid diagnostic assays and help UK experts identify tick and mosquito vectors which could spread new and emerging viral diseases to the UK.

<i>Project Title</i>	<i>Improving Capabilities to Detect and Characterise Brucella in the Veterinary and Public Health Sectors in the Republic of Tajikistan (ISTC Partner Project T-2119)</i>
Partner Country/Region	Tajikistan
Implementing Country	United Kingdom, through the International Biological Security Programme, Counter Proliferation & Arms Control Centre (CPACC), Ministry of Defence (MoD)
Collaborating Institution or Partner(s)	Defence Science and Technology Laboratory (Dstl), UK, implementing the project on behalf of CPACC. International Science and Technology Centre (ISTC) Animal and Plant Health Agency (APHA), UK National Centre for Veterinary Diagnostics (NCVD), Tajikistan State Sanitary Epidemiological Surveillance Service (SSESS), Tajikistan Tajikistan and Dushanbe Dairy Kombinat State Research Institute Veterinary Academy of Agricultural Sciences of Tajikistan (RIV)
Project Value	~ £625,000

Project Title	<i>Improving Capabilities to Detect and Characterise Brucella in the Veterinary and Public Health Sectors in the Republic of Tajikistan (ISTC Partner Project T-2119)</i>
Duration	2016 - 2019
Description	<p>Multi-year project focused on brucellosis which remains a significant human and animal health disease worldwide impacting substantially on animal and human health and economic productivity across much of the developing world, including Tajikistan. The causative organisms of brucellosis, members of the genus <i>Brucella</i>, represent among the most easily acquired laboratory infections, have previously been investigated by a number of states as part of their biological weapons programmes, and are included on 'select agent' lists. These issues highlight the need to undertake effective and transparent diagnosis of disease by well trained staff working safely and securely. Further, as a zoonotic disease, any prospect of control of brucellosis is dependent on effective cooperation between veterinary and public health sectors. This follow-on project, supported by the UK's Animal and Plant Health Agency, is seeking to embed skills developed as part of a previous IBSP-funded project focused on brucellosis (ISTC Partner Project T-1298.2). The project aims to:</p> <p>Implement and instil improvements in the ability to apply modern internationally recognised diagnostic tests for brucellosis, ensuring they are carried out in a safe and secure manner;</p> <p>Increase understanding of the epidemiology of brucellosis in Tajikistan including the nature of the <i>Brucella</i> species causing human and animal disease in Tajikistan, the significance of dairy products sold in local markets in transmission of disease to humans and the ability to differentiate local vaccine strains from field strains, providing a foundation for future efforts to control these diseases and placing in context with the global situation;</p> <p>Develop valuable cross-cutting scientific skills in public and veterinary health laboratories, particularly focussing on the application of modern molecular approaches that are currently poorly utilised in Tajikistan; thereby reducing the need to propagate the pathogen and therefore the likelihood of acquisition and deliberate or accidental release;</p> <p>Improve laboratory infrastructure particularly in the veterinary sector, enhancing biosecurity and the ability to work safely.</p> <p>Continue development of improved and sustainable linkages between the public and animal health sectors and between a number of other laboratories with an interest in brucellosis in Tajikistan;</p> <p>Develop links with institutes that have not previously worked on IBSP projects but undertake research on brucellosis;</p>

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<i>Project Title</i>	<i>Improving Capabilities to Detect and Characterise Brucella in the Veterinary and Public Health Sectors in the Republic of Tajikistan (ISTC Partner Project T-2119)</i>
	<p>Develop sustainable linkages with international reference laboratories for brucellosis;</p> <p>Raise both public and official awareness of the significance of brucellosis in Tajikistan;</p> <p>Provide opportunities for improving engagement between Tajik scientist and the global scientific community, and increase the international profile of Tajik science and scientists.</p>
<i>Project Title</i>	<i>Molecular Characterization of Field Isolates and Improving Surveillance for Rabies in Tajikistan (ISTC Partner Project T-2198)</i>
Partner Country/Region	Tajikistan
Implementing Country	United Kingdom, through the International Biological Security Programme, Counter Proliferation & Arms Control Centre (CPACC), Ministry of Defence (MoD)
Collaborating Institution or Partner(s)	<p>Defence Science and Technology Laboratory (Dstl), UK, implementing the project on behalf of CPACC</p> <p>International Science and Technology Centre (ISTC);</p> <p>Animal and Plant Health Agency (APHA), UK</p> <p>National Centre for Veterinary Diagnostics (NCVD), Tajikistan</p> <p>State Sanitary Epidemiological Surveillance Service (SSESS), Tajikista</p> <p>State Scientific and Research Institute of the Forestry Agency of the Government of the Republic of Tajikistan (SSRI)</p> <p>Institute of Problems of Biological Safety (IPBS), Tajikistan</p>
Project Value	~ £585,000
Duration	2016 - 2019
Description	<p>Multi-year project focused on rabies a disease which is endemic in Tajikistan and affects both humans and animals. Rabies is caused by a virus that is maintained in nature by many wild and domestic carnivore host species as well as bats. It is the oldest recognised zoonotic disease, and is transmitted mainly through bites or scratches, usually via saliva. Once symptoms develop, the disease is almost always fatal. In more than 99% of human cases, the rabies virus is transmitted by domestic dogs. Many animal species are involved in the maintenance and transmission of the disease in nature; it may therefore spread undetected. It has a long incubation period and the initial symptoms are non-specific. The virus is on the Australia Group list of human and animal pathogens and toxins for export control.</p>

<i>Project Title</i>	<i>Molecular Characterization of Field Isolates and Improving Surveillance for Rabies in Tajikistan (ISTC Partner Project T-2198)</i>
	<p>Rabies is a vaccine preventable disease, but control requires adequate surveillance, accurate laboratory diagnosis and an understanding of the epidemiology of the disease. In the past ten years the number of reported cases of rabies in Tajikistan has increased. Due to the public and animal health implications, control of the disease is a high priority. The location of Tajikistan in the centre of Asia bordering several rabies endemic countries, along with reports of emerging rabies-like viruses in bats, make the region extremely important for improving both rabies surveillance and global biosecurity. Furthermore, the skills and techniques to be developed and implemented as part of this part will be transferrable to work involving other dangerous pathogens/health threats within Tajikistan.</p> <p>This follow-on project aims to:</p> <ul style="list-style-type: none"> <li>Implement and instil improvements in the ability to apply modern internationally recognised diagnostic tests for rabies, and ensure this work is carried out in a safe and secure manner. This will include the introduction of modern molecular approaches into the veterinary sector that are currently poorly utilised in Tajikistan; thereby reducing the need to propagate the pathogen and therefore the likelihood of acquisition and deliberate or accidental release;</li> <li>Increase understanding of the epidemiology of rabies in Tajikistan by undertaking comparative research studies on rabies including the systematic collection of pathological samples, capability building of local specialists, an awareness campaign based on the results of a knowledge, awareness and practices (KAP) survey and phylogenetic studies of rabies viruses. These activities will provide a foundation for future efforts to control this disease and place it into context with the global situation;</li> <li>Improve laboratory infrastructure, enhancing biosecurity and the ability to work safely;</li> <li>Continue development of improved and sustainable linkages between the public and animal health sectors;</li> <li>Develop links with institutes that have not previously worked on IBSP projects;</li> <li>Develop sustainable linkages with international reference laboratories for rabies;</li> <li>Provide opportunities for improving engagement between Tajik scientist and the global scientific community, and increase the international profile of Tajik science and scientists.</li> </ul>
<i>Project Title</i>	<i>Increased Biosecurity for Zoonotic Diseases in Livestock in Central Asia</i>

<i>Project Title</i>	<i>Increased Biosecurity for Zoonotic Diseases in Livestock in Central Asia</i>
Partner Country/Region	Tajikistan and Central Asia
Implementing Country	Sweden through the Ministry of Foreign Affairs and the Swedish University of Agricultural Sciences
Project Value	€82,480 (SEK 800,000)
Duration	2015
Description	In collaboration with Tajikistan, Sweden supported a project to improve control of zoonotic diseases (infections transmittable between animals and humans) in livestock in Central Asia, with focus on Tajikistan, thereby contributing to biosecurity, as well as improved public health and increased possibilities for international trade. The project was developed in the context of the Biological Weapons Sub-Working Group of the Global Partnership. The project objectives will be achieved through: capacity building and risk-based approaches for surveillance and prevention; and strengthening good laboratory practices and laboratory diagnostics.
<i>Project Title</i>	<i>Education and Awareness raising in Ukraine</i>
Partner Country/Region	Ukraine and neighbouring countries
Implementing Country	United Kingdom, through the International Biological Security Programme, Counter Proliferation & Arms Control Centre (CPACC), Ministry of Defence (MoD)
Collaborating Institution or Partner(s)	The project will be delivered by researchers at the Palladin Institute of Biochemistry, Ukraine, with support and advice from Bradford University (Bradford Disarmament Research Centre), UK; Science and Technology Centre, Ukraine (STCU); with the Defence Science and Technology Laboratory (Dstl), UK, implementing the project on behalf of CPACC.
Project Value	£190,000
Duration	3 years (2014 –2017)
Description	The aim of this project is to build a sustainable network of educators, scientists and others engaged in the life, medical and agrarian sciences, in order to put in place the necessary background (including knowledge, materials and support) required for a successful application to the Government of Ukraine for a biosafety/biosecurity/dual-use module to be taught to all life sciences and associated scientists in the Ukraine at an early stage in their University career. This project follows on from a number of preliminary activities funded by the Canadian and US Global Partnership Programmes. Activities include:  The development and maintenance of a network of Ukrainian University lecturers interested in implementing

<i>Project Title</i>	<i>Education and Awareness raising in Ukraine</i>
	<p>biosafety/biosecurity modules as part of their courses.</p> <p>Three small regional meetings will be held each year to link the network (as well as setting up a website).</p> <p>In years 1 &amp; 3 larger more general meetings will be held in Kyiv, where participation by neighbouring countries and international experts will be encouraged for sharing of knowledge and experiences.</p> <p>Local universities will be contacted and where possible short (1/2-1 day) courses based on Bradford University's National Series module will be delivered to both graduate and post-graduate students.</p> <p>Progress from this project will be reported at BTWC (Meeting of States Parties) meetings, with the aim of encouraging other States Parties to engage in similar activities.</p>

## Europe

<i>Project Title</i>	<i>EDENext</i>
Partner Country/Region	Albania, Austria, Belgium, Czech Republic, Denmark, Finland, Georgia, Germany, Greece, Hungary, Italy, Netherlands, Portugal, Romania, Senegal, Slovakia, Spain, Sweden, Switzerland, Turkey & United Kingdom
Implementing Country	France (EC FP7 Health)
Project Value	€11,971,810
Duration	2011-2015
Description	<p>EDENext is a research project bringing together 46 international partners dedicated to investigating the biological, ecological and epidemiological components of vector-borne disease introduction, emergence and spread, and the creation of new tools to control them.</p> <p>This new knowledge in turn should help (i) to predict the emergence and spread of new vector-borne diseases (VBD), and (ii) to assess the efficacy of different interventions and develop new interventions to interrupt or limit the spread of VBDs with the goal of protecting European citizens from these threats. A major impact is also expected on strengthening European research capacity in this field.</p>
<i>Project Title</i>	<i>Generic Integrated Forensic Toolbox for CBRN incidents</i>
Partner Country/Region	United Kingdom, Finland, Belgium, Sweden, Ireland, Turkey, Spain & France

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<i>Project Title</i>	<i>Generic Integrated Forensic Toolbox for CBRN incidents</i>
Implementing Country	Coordinator - Netherlands Forensic Institute
Project Value	€7,125,972 (EU contribution €5,463,924)
Duration	2014-2017
Description	<p>The project aims to develop and provide a forensic toolbox focusing on procedures, practices and guidelines for common CBRN forensic measurements and handling instructions on a European level</p> <p>In relation to biological agents, the RIVM participates in the development of biologically safe procedures for forensic investigation of CBRN contaminated exhibits.</p>

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## Middle East

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<i>Project Title</i>	<i>Biosecurity Engagement in Iraq</i>
Partner Country/Region	Iraq
Implementing Country	Canada - Global Partnership Program Global Affairs Canada
Collaborating Institution or Partner(s)	CRDF Global
Project Value	US\$699,432
Duration	2016-2018
Description	<p>To improve laboratory equipment operation and maintenance standards in Iraq, CRDF Global will implement the following activities:</p> <p>a Basic Laboratory Equipment Maintenance and Repair training for Iraqi experts;</p> <p>implementation of a Biorisk Management train-the-trainer course involving international subject matter experts;</p> <p>Promotion of Biorisk Management through a Comprehensive Curriculum on Responsible Science.</p>

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<i>Project Title</i>	<i>Bioterrorism Risks and Controls (BRC) Workshop for IRAQ</i>
Partner Country/Region	Iraq
Implementing Country	Canada - Global Partnership Program Global Affairs Canada

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<i>Project Title</i>	<i>Bioterrorism Risks and Controls (BRC) Workshop for IRAQ</i>
Collaborating Institution or Partner(s)	International Criminal Police Organization (INTERPOL)
Project Value	C\$107,900
Duration	2016-2017
Description	To enhance the capacity of the Government of Iraq to better prevent, detect, and respond to biological threats, arising as a result of deliberate acts of terror, and address threats posed by the potential acquisition and use of biological weapons by Daesh.
<i>Project Title</i>	<i>CBRN 34: Strengthening Capacities in CBRN Event Response and Related Medical Emergency Response for Strengthened CBRN Preparedness</i>
Partner Country/Region	Iraq, Jordan, Lebanon
Implementing Country	European Union; - Leader of the Project Poland - Military Institute of Hygiene and Epidemiology Italy - Military Institute of Chemistry & Radiometry, University of Rome Tor Vergata Partners: Spain (FIIAPP) and Italy (ICIS)
Project Value	€3,914,034
Duration	10-Apr-14 / 09-Apr-17
Description	Project funded by the EU Instrument contributing to Stability and Peace.  The main aim of the CBRN CoE initiative is to enhance national CBRN policies and capacities in third partner countries and to promote national, regional and international cooperation in CBRN risk mitigation. The origin of the risk can be criminal (proliferation, theft, sabotage and illicit trafficking), accidental (industrial catastrophes, in particular chemical or nuclear, waste treatment and transport) or natural (mainly pandemics). The CBRN CoE initiative supports the reinforcement of the institutional capacity needed to fight against this risk.
<i>Project Title</i>	<i>INTERPOL Operational Response to Bioterrorism in Jordan</i>
Partner Country/Region	Jordan
Implementing Country	Canada - Global Partnership Program Global Affairs Canada
Collaborating Institution or Partner(s)	International Criminal Police Organization (INTERPOL)

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<i>Project Title</i>	<i>INTERPOL Operational Response to Bioterrorism in Jordan</i>
Project Value	C\$192,000
Duration	2016-2017
Description	To strengthen the operational capability of law enforcement agencies in Jordan to prevent and respond to biological incidents, whether deliberately caused or naturally occurring.

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<i>Project Title</i>	<i>Regional Biosecurity Training Centre in Jordan</i>
Partner Country/Region	Middle-East (Jordan)
Implementing Country	Global Partnership Program Global Affairs Canada
Collaborating Institution or Partner(s)	United Kingdom United States
Project Value	C\$1,100,000
Duration	2013-2016
Description	In partnership with the Governments of the United Kingdom and the United States, Canada supported the development of a new BioRisk Management and Genomics Training Center at the Princess Haya Biotechnology Center at the Jordan University of Science and Technology (JUST). This project established a regional center of excellence to enhance the capacity for biological risk management and technological capabilities of laboratories in order to combat infectious diseases and at the same time promote a sustainable culture of laboratory safety and security through the education and training of staff from different sectors of the Middle East and North Africa (MENA) region. More specifically, Canada's contribution supported:  Construction of the Genomics Floor at the Regional Biological Risk Management Training Center;  Provision of specified genomics equipment; and  Delivery of biorisk management training.

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<i>Project Title</i>	<i>Strengthen Jordan's National Laboratory System</i>
Partner Country/Region	Jordan
Implementing Country	Canada - Global Partnership Program Global Affairs Canada

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<i>Project Title</i>	<i>Strengthen Jordan's National Laboratory System</i>
Collaborating Institution or Partner(s)	UK - Ministry of Defence (MoD) and Defence Science Technologies Laboratories (DSTL) UK - Public Health England (PHE) Jordan Armed Forces (JAF) Royal Medical Services (RMS) Jordanian Ministry of Health
Project Value	£400,000
Duration	2016-2017
Description	On behalf of Canada's Global Partnership Program, and for the benefit of the Government of Jordan, experts from Public Health England (PHE)'s Novel and Dangerous Pathogens Training Unit, with support from UK Ministry of Defence and Defence Science Technologies Laboratories, will deliver a range of trainings for Jordanian laboratory staff from Ministry of Health and Jordan Armed Forces Royal Medical Services. The technical focus of these courses will include training in laboratory biosafety and biosecurity, development of locally-appropriate codes of practice and risk assessments, development of laboratory quality management systems, full and effective operationalisation of the facilities provided by GPP.
<i>Project Title</i>	<i>National Strategy for Laboratory Integration</i>
Partner Country/Region	Jordan
Implementing Country	Canada - Global Partnership Program Global Affairs Canada
Collaborating Institution or Partner(s)	Middle East Scientific Institute for Security (MESIS)
Project Value	US\$62,300
Duration	2016-2017
Description	To further heighten national awareness and interagency integration for biological facilities in Jordan, the Middle East Scientific Institute for Security will assist the Jordanian Armed Forces (JAF) Royal Medical Services (RMS) and Ministry of Health (MOH) to establish essential strategies, collaborations and controls. The Project will, <i>inter alia</i> , develop a regional outreach plan for the laboratories, increase the volume of samples processed in the laboratories and increase interagency cooperation by organizing multiagency response exercises.
<i>Project Title</i>	<i>Equipment and Supplies for Mobile and Modular Biological Laboratories</i>



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<i>Project Title</i>	<i>Equipment and Supplies for Mobile and Modular Biological Laboratories</i>
Partner Country/Region	Jordan
Implementing Country	Canada - Global Partnership Program Global Affairs Canada
Project Value	C\$3,000,000
Duration	2016-2017
Description	Provision of critical equipment such as diagnostics kits, personal protective equipment (PPE), training and other accessories to supply the mobile and modular biological laboratories of the Jordanian Armed Forces (JAF) Royal Medical Services (RMS) and Ministry of Health (MOH). This Equipment is vital to ensure fully operational labs and will ensure prevention and preparedness for in the event of a biological threat.

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<i>Project Title</i>	<i>Regional Guidelines and Training Programs for the Medical Management of CBRN Incidents in Jordan</i>
Partner Country/Region	Jordan
Implementing Country	Canada - Global Partnership Program Global Affairs Canada
Collaborating Institution or Partner(s)	CBRNE Collaborative, Toronto, Canada
Project Value	C\$234,656
Duration	2016
Description	To support the Government of Jordan to develop appropriate guidelines and procedures to effectively respond to health security emergencies caused by chemical, biological, radiological or nuclear (CBRN) events.

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<i>Project Title</i>	<i>Responding to Biological Threats – Developing Costing Tools for Emergency Operations in Jordan</i>
Partner Country/Region	Jordan
Implementing Country	Canada - Global Partnership Program Global Affairs Canada
Collaborating Institution or Partner(s)	George Washington University (via Red Wheel LLC)
Project Value	US\$181,917
Duration	2016-2017

<i>Project Title</i>	<i>Responding to Biological Threats – Developing Costing Tools for Emergency Operations in Jordan</i>
Description	To support the development of a costing tool to assess requirements and cost ranges for a variety of scenarios that Emergency Operations Centres in Jordan might encounter in responding to biological incidents and threats posed by weapons and materials of mass destruction.
<i>Project Title</i>	<i>CBRN Training Facility</i>
Partner Country/Region	Jordan
Implementing Country	Canada - Global Partnership Program Global Affairs Canada
Collaborating Institution or Partner(s)	Jordanian Armed Forces
Project Value	C\$1,450,000 (768,702 Jordanian Dinar)
Duration	2016-2017
Description	To further enhance the capability of the Jordanian Armed Forces (JAF) to mitigate threats posed by chemical, biological, radiological and nuclear (CBRN) weapons, the GPP is funding the construction and equipping of a CBRN training facility at the JAF/ Chemical Support Unit compound. The intended result of the Project is to strengthen Jordanian capacities and capabilities to train, equip and protect military and civilian units tasked with responding to a weapon of mass destruction (WMD)/CBRN event in Jordan.
<i>Project Title</i>	<i>Enhanced Biological Security and Disease Surveillance in Jordan</i>
Partner Country/Region	Jordan
Implementing Country	Canada - Global Partnership Program Global Affairs Canada
Collaborating Institution or Partner(s)	Jordanian Ministry of Health
Project Value	C\$3,000,000
Duration	2014-2017
Description	In partnership with the Jordanian Ministry of Health, Canada is implementing a project to strengthen biological security and disease diagnostics capacity in Jordan. Specific project activities include:  Provision of a fully-equipped modular BSL3 Laboratory (2015);

<i>Project Title</i>	<i>Enhanced Biological Security and Disease Surveillance in Jordan</i>
	Co-funding with the United Kingdom Ministry of Defence of a biosecurity guide (“Preventing Biological Threats: What You Can Do: A Guide to Biological Security Issues and How to Address Them”) prepared by the University of Bradford, to be launched at the BTWC Meeting of States Parties on 15 December 2015; and  Conduct of an INTERPOL workshop on Safety, Security and Surveillance of Microbiological Materials and Emerging Technologies (S3OMMET) with associated training and equipment.
<i>Project Title</i>	<i>Enhanced Biological Security and Disease Surveillance in Jordan</i>
Partner Country/Region	Jordan
Implementing Country	Canada - Global Partnership Program Global Affairs Canada
Collaborating Institution or Partner(s)	Jordanian Armed Forces Royal Medical Services
Project Value	C\$950,000
Duration	2014-2017
Description	Strengthened biological security and disease diagnostics capacity in Jordan through the provision of a fully-equipped mobile laboratory. The laboratory was delivered to Jordan in 2015, and GPP continues to provide maintenance support, as well as associated training, travel and equipment.
<i>Project Title</i>	<i>Establishing the Palestinian National Institute of Public Health &amp; Strengthening IHR-implementation</i>
Partner Country/Region	Palestine
Implementing Country	Norway
Collaborating Institution or Partner(s)	World Health Organization Palestinian National Institute of Public Health Norwegian Institute of Public Health
Project Value	NOK 36,000,000 (~US\$5 million)
Duration	2011-2016
Description	The World Health Organization, in close cooperation with the Norwegian Institute of Public Health, has played a supportive role in building up the Palestinian National Institute of Public Health. The support has consisted of providing professional advice as well as materials and equipment. The project was funded by Norway.

## Multi-Regional And Global Programming

<i>Project Title</i>	<i>Promoting Universality and Implementation of the Biological and Toxin Weapons (BTWC)</i>
Partner Country/Region	Africa, Latin America and the Caribbean
Implementing Country	Canada - Global Partnership Program Global Affairs Canada
Collaborating Institution or Partner(s)	Parliamentarians for Global Action (PGA)
Project Value	C\$255,000
Duration	2016-2018
Description	To promote universality and implementation of the Biological and Toxin Weapons Convention (BTWC) in Africa, Latin America and Caribbean and to enhance national implementation measures for the Convention.
<i>Project Title</i>	<i>CBRN 23. Building Capacity to Identify and Respond to Threats from CBRN Substances.</i>
Partner Country/Region	Albania, Cambodia, Iraq, Moldova, Senegal and Tunisia
Implementing Country	European Union - Leader of the Project Spain - FIIAPP Partners: UK - National Crime Agency
Project Value	€499,100
Duration	07-Jan-13 / 06-Jan-15
Description	Project funded by the EU Instrument contributing to Stability and Peace.  The European Commission is seeking external support to implement technical aspects related to the EU CBRN Risk Mitigation CoE. The overall objective of the project, of which this contract was a part is to: counter the threat arising from CBRN agents in particular when used in a criminal or terrorist context; and to improve preparedness and response capabilities of states to unlawful or criminal acts involving CBRN agents.
<i>Project Title</i>	<i>Project 36. MediPIET Further Development and Consolidation of the Mediterranean Programme for Intervention Epidemiology Training (IfS/2013/329-859)</i>
Partner Country/Region	Albania, Algeria, Armenia, Bosnia & Herzegovina, Egypt,

<i>Project Title</i>	<i>Project 36. MediPIET Further Development and Consolidation of the Mediterranean Programme for Intervention Epidemiology Training (IfS/2013/329-859)</i>
Implementing Country	former Yugoslav Republic of Macedonia, Georgia, Jordan, Kosovo <sup>1</sup> , Lebanon, Libya, Moldova, Montenegro, Morocco, Palestine, Serbia, Tunisia, Ukraine.  Two observer countries: Turkey and Israel. As members of the Scientific Advisory Board: Greece, France and Spain  European Union  Spain - Consortium FIIAPP, ISCIII
Project Value	€6,450,000
Duration	January 2014 to December 2017
Description	<p>MediPIET is a EuropeAid-DEVCO funded project under the Instrument contributing to Stability and Peace, linked to the Chemical, Biological, Radiological and Nuclear Centres of Excellence initiative – CBRN CoE. The project is led by the Consortium FIIAPP-ISCIII, with the scientific leadership of ECDC.</p> <p>This Project has been established under a regional perspective to contribute to the overall objective of enhancing health security in the Mediterranean basin by supporting capacity building for prevention and control of natural or man-made health threats posed by communicable diseases and other threats through a sustainable training programme in intervention epidemiology.</p> <p>The MediPIET project is aimed at consolidating a competent workforce in intervention epidemiology to carry out essential public health functions for prevention and control of national and cross-border challenges posed by communicable diseases and other health threats enhancing the biological aspect of CBRN CoE.</p> <p>The main objectives are:</p> <ul style="list-style-type: none"> <li>· Establishing a network of epidemiologists and trainers in field epidemiology among Public Health institutions of the participating countries in order to contribute to the reinforcement of the prevention and response to health threats</li> <li>· Training field epidemiologists in charge of the essential activities of public health for the prevention and control of communicable diseases and other risks, with a common language in the region</li> <li>· Promoting the collaboration, the exchange of experiences and knowledge between the countries of the Mediterranean and the commitment at the sustainability at national and regional levels</li> <li>· Reinforce institutional capacity at national and regional levels</li> </ul>

<i>Project Title</i>	<i>Project 36. MediPIET Further Development and Consolidation of the Mediterranean Programme for Intervention Epidemiology Training (IFS/2013/329-859)</i>
	<p>The above objectives are achieved through:</p> <p>A two years fellowship programme</p> <p>18 training modules with learning by doing methodology for fellows and additional participants</p> <p>12 training of trainers</p> <p>International Assignments</p> <p>Annual Scientific Conference</p> <p>Establishment of a network of Junior and Senior epidemiologists, network of Training Sites, a Training Centres Forum.</p>
<i>Project Title</i>	<i>CBRN 37. MEDILABSECURE - Establishment of Networks of Human and Animal Virology Laboratories and of Medical Entomology</i>
Partner Country/Region	Albania, Algeria, Armenia, Bosnia and Herzegovina, Egypt, former Yugoslav Republic of Macedonia, Georgia, Jordan, Kosovo <sup>1</sup> , Lebanon, Libya, Moldova, Montenegro, Morocco, Occupied Palestinian Territories, Serbia, Tunisia, Turkey and Ukraine
Implementing Country	<p>European Union</p> <p>France - Institut Pasteur-IRD</p> <p>Spain – INIA</p> <p>Italy - ISS</p>
Project Value	€3,600,000
Duration	48 months (starting date 06/01/2014)
Description	<p>Project funded by the EU Instrument contributing to Stability and Peace.</p> <p>Establishing networks of reference laboratories of human virology, animal virology, and medical entomology in the Mediterranean and the South-East Europe Black Sea region to support the priority diagnostic needs relying on the existing facilities and diagnosis capacities available in the EpiSouth-Plus Area by:</p> <ul style="list-style-type: none"> <li>- Developing a first cluster for awareness, risk assessment, monitoring and control of emerging or re-emerging viruses with vector transmission. This cluster will need the interaction of several work packages, one for human health, one for animal health, one for entomology and one for public health reinforcement;</li> <li>- Launching a second cluster for awareness, monitoring and control of emerging respiratory viruses comprising several</li> </ul>

<i>Project Title</i>	<i>CBRN 37. MEDILABSECURE - Establishment of Networks of Human and Animal Virology Laboratories and of Medical Entomology</i>
	work packages for human health, animal health and public health; and - Capacity building of national laboratories in preparedness and response to emerging zoonotic viruses and respiratory viruses.
<i>Project Title</i>	<i>Establishment of an Expert Laboratory Network for Early Detection, Surveillance and Epidemic Preparedness and Support to Emerging or Re-emerging and Vector-Borne Threats in Europe</i>
Partner Country/Region	Austria, Belgium, Bosnia & Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, French, Great Britain, Greece, Hungary, Iceland, Ireland, Israel, Italy, Kosovo <sup>1</sup> , Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Russia, Saudi Arabia, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland and Turkey
Implementing Country	Germany (ECDC)
Collaborating Institution or Partner(s)	European Network for Diagnostics of “Imported” Viral Diseases (ENIVD)
Project Value	€1,200,807
Duration	2012-2015
Description	<p>Considerable attention has recently been directed to emerging and re-emerging infections in national and international discussions. Infectious diseases are a continuing menace to all people, regardless of age, gender, lifestyle, ethnic background, and socio-economic status. They cause suffering and death, and impose an enormous financial burden on society.</p> <p>Numerous viral outbreaks in the last few years like Ebola in Kikwit/Zaire, Côte d’Ivoire, and Liberia in 1996/97 and Nipha Virus in Malaysia in 1998 led to the building of the European Network for Diagnostics of “Imported” Viral Diseases (ENIVD). After several meetings, scientists from university medical centres, country health departments, and hospitals all over Europe have raised this network and agreed to collaborate on a few major tasks for the future, fixed in a Memorandum of Understanding signed by all members and their institutions.</p> <p>The ENIVD members meet regularly together with representatives from EC and WHO to exchange and gather information working on the improvement of the collaboration and diagnostics for “imported” viral diseases in Europe. Sharing the duties and strengthen the collaboration in the EC will help to enhance the emergency preparedness in all participating countries to the benefit for their citizens.</p>
<i>Project Title</i>	<i>Prevention of Infectious Diseases by Ensuring Blood Safety</i>

<i>Project Title</i>	<i>Prevention of Infectious Diseases by Ensuring Blood Safety</i>
Partner Country/Region	Burundi, Myanmar, Nicaragua, Egypt and Azerbaijan
Implementing Country	Japan
Project Value	in-kind contribution
Duration	2015-2016
Description	To learn Japanese experience in 100% volunteer blood donation, safety blood transfusion management, basic and cutting-edge technology.
<i>Project Title</i>	<i>Safe, Secure, and Sustainable Microbiology in the Middle East and North Africa</i>
Partner Country/Region	Egypt and Jordan
Implementing Country	The United Kingdom, through the Ministry of Defence American Society for Microbiology (ASM) (through US State Department)
Project Value	US\$254,125
Duration	2016-2017
Description	ASM will provide training to clinical and veterinary laboratories that will result in the development of testing, documentation, reporting, and referral standard operating procedures (SOPs) in according with international/Clinical and Laboratory Standards Institute (CLSI) standards. This program will strengthen diagnostic capacity, outbreak detection, and control strategies, and build the biosafety and BRM skills of clinical and agricultural scientists. This program will also enhance the regional laboratory network surveillance systems and address the issue of transboundary infectious diseases. This program will be based on an ASM workshop package, developed by ASM experts and successfully implemented in various countries around the world.
	ASM will expand on its ongoing program promoting the use of standardized curricula for biosafety and RCR, including specialized SOPs, in university and institutional labs. ASM will form a taskforce to customize the RCR and biosafety training curricula for use in university and institutional labs. Specifically, the adapted curricula will weave RCR and biorisk management principles and practice into the student research process, from choosing a research topic through publication. The incorporated SOPs will support practical, safe science, and provide a foundation for safe and ethical work as the scientists' careers develop.



<i>Project Title</i>	<i>Safe, Secure, and Sustainable Microbiology in the Middle East and North Africa</i>
	<p>ASM will also hold hands-on workshops for new cohorts of lab directors to provide training on how to implement the customized curricula and explore ways to frame RCR dual-use issues in the context of student research projects. These new cohorts will join their colleagues from the FY14 and FY15 cohorts in a MENA regional network that disseminates best practices and encourages the wide use of standardized biosafety curricula and associated SOPs. Through this engagement, participants will also gain situational awareness regarding the research and lab practices in key MENA institutions. The program will result in a customized RCR and biorisk management curricula with specialized SOPs and an expanded cohort of lab directors connected to an international network that promotes transparent and ethical research. Key activities include:</p> <p>Deliver a five-day workshop addressing gaps in laboratory capacity to identify, secure, and report on especially dangerous pathogens;</p> <p>A five-day hands-on workshop on the implementation of the MENA-customized RCR and biosafety training held in the MENA region;</p> <p>RCR and biorisk training curricula and SOPs customized for the MENA region.</p>
<i>Project Title</i>	<i>Establishment of German-Georgian, German-Kazakh and German-Tanzanian Networks for Biosecurity and Diagnosis of Dangerous Infectious Diseases and Providing Mobile Laboratory Capacity for Dangerous Pathogens in Mali</i>
Partner Country/Region	Georgia, Kazakhstan, Tanzania and Mali
Implementing Country	Germany In Mali: Germany and France
Collaborating Institutions	Bundeswehr Institute for Microbiology Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
Project Value	€3,400,000
Duration	2013-2016 (Mali: 2014-2016)
Description	<p>The aims of the projects in <i>Georgia, Kazakhstan</i> and <i>Tanzania</i> are to develop long-lasting networks within the framework of standardized detection, diagnostics and monitoring of highly pathogenic agents, awareness raising in the participating countries. Activities include the implementation of quality assessed diagnostic assays in order to conduct epidemiological investigations and establish a monitoring system (surveillance), trainings with regard to biosafety and biosecurity in dealing</p>

<i>Project Title</i>	<i>Establishment of German-Georgian, German-Kazakh and German-Tanzanian Networks for Biosecurity and Diagnosis of Dangerous Infectious Diseases and Providing Mobile Laboratory Capacity for Dangerous Pathogens in Mali</i>
	and handling highly pathogenic agents and laboratory equipment support. In <i>Mali</i> the project aims to strengthen the capacity of the Malian health sector to better respond to an outbreak of Ebola or other biological hazards by providing it with a mobile diagnostic lab capacity. The project includes the provision of complete mobile laboratory equipment, training of respective staff (lab and decision makers), support for analysing Ebola or other potentially lethal samples, field exercises and risk communication training. The project is aligned with respective initiatives and WHO.
<i>Project Title</i>	<i>CBRN 22. Provision of Specialized Technical Training to Enhance First Responder Capabilities in Case of CBRN Incidents</i>
Partner Country/Region	Indonesia, Morocco, Mauritania and Thailand
Implementing Country	European Union; Leader of the Project: France Expertise (France); Partners: FIIAPP (Spain) and National Crime Agency (UK).
Project Value	€700,000
Duration	07-Jan-13 / 06-Jan-15
Description	<p>Project funded by the EU Instrument contributing to Stability and Peace.</p> <p>The European Commission is seeking external support to implement technical aspects related to the EU CBRN Risk Mitigation CoE. The overall objective of this project is to reinforce interagency coordination to respond to CBRN incidents. This includes defining standard operational procedures in response to such incidents, e.g. post-incident management and site restoration.</p>
<i>Project Title</i>	<i>Cooperative Biological Engagement Program in the Middle East and Southwest Asia</i>
Partner Country/Region	Iraq, Jordan and Turkey
Implementing Country	The United States Department of Defense Cooperative Threat Reduction Program
Collaborating Institution or Partner(s)	<p>National Ministries of health, agriculture, emergency services, education and science, and defense of participating countries</p> <p>World Health Organization (WHO)</p> <p>World Organisation for Animal Health (OIE)</p> <p>Food and Agriculture Organisation (FAO) of the United Nations</p>

<i>Project Title</i>	<i>Cooperative Biological Engagement Program in the Middle East and Southwest Asia</i>
	GHSA coordination groups United States Centers for Disease Control (CDC)
Project Value	US\$47,700,000
Duration	FY2016
Description	<p>Specific activities include:</p> <ul style="list-style-type: none"> <li>• enhancing disease detection and reporting through infrastructure improvements, training, and sustainment;</li> <li>• enhancing biosafety and biosecurity through infrastructure improvements, training, and sustainment;</li> <li>• conducting joint research projects to prevent proliferation of pathogens of security concern;</li> <li>• providing fellowships and grants to students and researchers to promote integration into the international research community; and</li> <li>• providing electronic disease reporting systems to enhance capability to detect and report on outbreaks of diseases of security concern.</li> </ul> <p>working with partner countries to strengthen regional and cross-border linkages and facilitate the adoption of biosurveillance-related BS&amp;S best practices</p>
<i>Project Title</i>	<i>Bioterrorism Evidence Exploitation Workshop and Operation</i>
Partner Country/Region	Iraq, Malaysia, Philippines, Indonesia, Singapore and Thailand
Implementing Country	Canada - Global Partnership Program Global Affairs Canada
Collaborating Institution or Partner(s)	International Criminal Police Organization (INTERPOL)
Project Value	C\$741,967
Duration	2016-2018
Description	To support the Governments of Iraq and select countries in Southeast Asia (Malaysia, Philippines, Indonesia, Singapore and Thailand) to better prepare for, detect and respond to BioTerrorism threats. This Project is designed to strengthen the capabilities of law enforcement experts to conduct effective responses to biological attacks and mitigate serious threats posed by terrorist groups operating in Iraq and Southeast Asia.

<i>Project Title</i>	<i>Improving Biological Safety, Security and Capabilities/Capacities in the Middle East and North Africa to Reduce International Biological Risks</i>
Partner Country/Region	Countries within the Middle East and North Africa
Implementing Country	United Kingdom, through the International Biological Security Programme, Counter Proliferation & Arms Control Centre (CPACC), Ministry of Defence (MoD)
	<i>Note – a number of projects are jointly funded with or conducted in support of other GP members programmes. Unless otherwise specified, the costs shown here represent the UK funding contribution.</i>
Collaborating Institution or Partner(s)	<p>UK - Defence Science and Technology Laboratory (Dstl) implementing the projects on behalf of CPACC.</p> <p>Other partners include (but are not limited to):</p> <p>US Centers for Disease Control and Prevention (CDC)</p> <p>UK - Public Health England (PHE)</p> <p>Institut Pasteur de Tunis, Tunisia</p> <p>Farhat Hached University Hospital, Tunisia</p> <p>Food and Agriculture Organisation of the United Nations (FAO)</p> <p>World Organisation for Animal Health (OIE)</p> <p>Fera Science Ltd, UK; International Plant Protection Convention (IPPC)</p> <p>New Zealand Ministry of Agriculture;</p>
Project Value	£870,000
Duration	2011 – 2017
Description	<p>In partnership with countries in the Middle East and North Africa, and working jointly with or supporting other GP members' programmes, the UK is implementing a number of projects to improve biological safety and security and to strengthen capacities to detect, rapidly identify and diagnose highly dangerous pathogens and emerging infectious diseases that present regional and global threats. Some specific project activities and implementing partners include:</p> <p>Further contribution to existing US-led Field Epidemiology Training Programmes (FETPs) run by CDC in Iraq and Morocco to build in-country capacity and regional capacity in public health, biosafety and security, disease surveillance and outbreak response (£580K).</p> <p>Epidemiological and disease surveillance capacity building for emerging vector borne pathogens in Tunisia (with expert UK support provided by PHE) (£26K).</p> <p>Strengthening plant pathogen biosecurity in selected MENA</p>

<i>Project Title</i>	<i>Improving Biological Safety, Security and Capabilities/Capacities in the Middle East and North Africa to Reduce International Biological Risks</i>
	and Horn of Africa States; needs assessment and capacity development through FAO, Fera Science Ltd and IPPC; New Zealand Ministry of Agriculture (£150K).  Analysis of legal and regulatory frameworks to support disease detection and response in MENA by Georgetown University department of health policy and management (\$300K USD)  Safe, secure and sustainable microbiology in Iraq/Jordan (\$255KUSD).
<i>Project Title</i>	<i>Biological Risk Management in the Middle East and North Africa (MENA) Region</i>
Partner Country/Region	MENA - Morocco, Algeria, Egypt, Lebanon, Jordan, Iraq, Turkey & UAE
Implementing Country	Canada - Global Partnership Program Global Affairs Canada
Collaborating Institution or Partner(s)	International Federation of Biosafety Associations (IFBA) Tunisian National Biosafety Association
Project Value	C\$44,700
Duration	2016-2017
Description	To promote safe, secure & responsible work with biological materials in the Middle East and North Africa, IFBA and the Tunisian National Biosafety Association will convene a Biological Risk Management Symposium and follow-on Conference in Tunisia in April 2017.
<i>Project Title</i>	<i>Projects to Establish Modern and Mobile Diagnostics for Crimean-Congo-Viral-Haemorrhagic Fever in Kosovo, on diagnostics and surveillance of viral-haemorrhagic fevers in Nigeria.</i>  <i>Project to improve infectious disease surveillance and fight against arbo virus in mosquitos in Rio de Janeiro to prepare for the Olympic Games in 2016 in Brazil.</i>  <i>International Global Partnership Initiated Academia for the Control of Health Threats (GIBACHT): Training of scientists from Africa and Asia for the prevention of highly dangerous diseases</i>
Partner Country/Region	Nigeria, Brazil, Kosovo, Asia and Africa
Implementing Country	Germany
Collaborating Institution	Bernhard Nocht Institute for Tropical Medicine
Project Value	€1,250,000 plus €1,200,000 for GIBACHT
Duration	2013/14-2016

<i>Project Title</i>	<p><i>Projects to Establish Modern and Mobile Diagnostics for Crimean-Congo-Viral-Haemorrhagic Fever in Kosovo, on diagnostics and surveillance of viral-haemorrhagic fevers in Nigeria.</i></p> <p><i>Project to improve infectious disease surveillance and fight against arbo virus in mosquitos in Rio de Janeiro to prepare for the Olympic Games in 2016 in Brazil.</i></p> <p><i>International Global Partnership Initiated Academia for the Control of Health Threats (GIBACHT): Training of scientists from Africa and Asia for the prevention of highly dangerous diseases</i></p>
Description	<p>The projects focus on diagnostics and surveillance, with objectives that include:</p> <p>Establishing a dengue virus surveillance and protection measure in Rio de Janeiro;</p> <p>Collect mosquitos in different parts of Brazil;</p> <p>Training of laboratory operatives and equipment of laboratories to diagnose Ebola and other unidentified samples;</p> <p>Characterization of Ebola virus strains; and</p> <p>Research connected to Lassa virus and other tropical diseases.</p>
<i>Project Title</i>	<p><i>Projects on the Prevalence and Diagnostics of Brucella, Q-Fever and viral haemorrhagic fever infections in Egypt, on Brucellosis in Pakistan and on the prevalence and diagnosis of Crimean-Congo-haemorrhagic fever, rift valley fever and zoonotic paramyxo-virus-infections in Sub-Saharan-Africa</i></p>
Partner Country/Region	Pakistan, Egypt and Sub-Saharan Africa
Implementing Country	Germany
Collaborating Institution	Friedrich-Loeffler-Institut
Project Value	€2,000,000
Duration	2013-2016
Description	<p>The projects focus on surveillance, diagnostics and good laboratory practice. They include training; seminars and lectures on epidemiology, diagnostic techniques, biosafety, biosecurity and brucellosis diagnosis for scientists; the collection and examination of samples with new laboratory equipment and the installation of a network of institutes in order to strengthen the diagnostic capacities and the sustainability of the projects.</p>
<i>Project Title</i>	<i>Dengue Tools</i>
Partner Country/Region	Sri Lanka, United Kingdom, Malaysia, Thailand, Switzerland, France, Germany, Spain, Singapore and Brazil
Implementing Country	Sweden (EC FP7 Health)
Project Value	€5,606,488

<i>Project Title</i>	<i>Dengue Tools</i>
Duration	2012-2016
Description	Dengue fever is a mosquito-borne viral disease estimated to cause about 50-100 million infections worldwide every year, of which 25,000 are fatal. Global incidence has risen rapidly in recent decades: some 2.5 billion people – two fifths of the world’s population – are now at risk, mainly in the tropics and sub-tropics, but climate change and travel patterns have also contributed to the introduction of Dengue fever even in Europe. “DengueTools” endeavours to achieve better diagnosis, surveillance, prevention, prediction and/or prevention of the spread of Dengue fever to previously uninfected regions (including Europe) in the context of climate change.

<i>Project Title</i>	<i>Programme: Swedish Research Links (Research Network Grant)</i>
Partner Country/Region	Low income countries and the lower-middle income countries on the OECD/DAC list (columns Least Developed Countries, Other Low Income Countries and Lower Middle Income Countries and Territories).
Implementing Country	Sweden
Project Value	€5,330,270 (SEK 51,700,000)
Duration	2012-2016
Description	<p>The purpose of the Swedish Research Links programme is to support the development of long-term research partnerships between Swedish researchers and researchers within low income and lower middle-income countries.</p> <p>The long-term aim of the programme is to contribute to mutual scientific and socioeconomic development of the countries involved. The programme aims to support knowledge exchange between the partners and long-term collaboration through high quality projects. The program is open to researchers from all academic disciplines, covering theoretical as well as empirical, basic as well as applied fields of research.</p>

<i>Project Title</i>	<i>UNIDIR Framework Agreement for Multi-year Cooperation</i>
Partner Country/Region	Global
Implementing Country	Norway
Collaborating Institution or Partner(s)	United Nations Institute for Disarmament Research (UNIDIR)
Project Value	NOK 12,500,000 (~US\$1,500,000)
Duration	2014-2016

<i>Project Title</i>	<i>UNIDIR Framework Agreement for Multi-year Cooperation</i>
Description	Support for strategic and structured disarmament and security-building activities that strengthen the ability of developing countries to implement disarmament commitments, as well as UNIDIR's capacity to advance disarmament and sustainable development.
<i>Project Title</i>	<i>ILPI WMD Project - Development and Disarmament</i>
Partner Country/Region	Global
Implementing Country	Norway
Collaborating Institution or Partner(s)	International Law and Policy Institute (ILPI)
Project Value	NOK 18,812,000 (~US\$2,200,000)
Duration	2014-2016
Description	To strengthen the capacity of developing countries, intergovernmental organisations and civil society to implement international obligations and participate in multilateral processes aimed at controlling and eliminating weapons of mass destruction
<i>Project Title</i>	<i>Support to WHO Special Program on Tropical Disease Research (TDR)</i>
Partner Country/Region	Global
Implementing Country	Sweden
Collaborating Institution or Partner(s)	World Health Organization (WHO)
Project Value	€18,042,500 (SEK 175,000,000)
Duration	2012-2016
Description	TDR is a global programme of scientific collaboration that helps facilitate, support and influence efforts to combat diseases of poverty. TDR is hosted at the World Health Organization (WHO), and is co-sponsored by the United Nations Children's Fund (UNICEF), the United Nations Development Programme (UNDP), the World Bank and WHO.
<i>Project Title</i>	<i>Support to the International Vaccine Institute (IVI)</i>
Partner Country/Region	International
Implementing Country	Sweden
Collaborating Institution or Partner(s)	International Vaccine Institute (IVI)



<i>Project Title</i>	<i>Support to the International Vaccine Institute (IVI)</i>
Project Value	€2,422,850 (SEK 23,500,000)
Duration	2012-2016
Description	The IVI is an international non-profit organization involved in all areas of the vaccine spectrum from new vaccine design in the laboratory to vaccine development and evaluation in the field to facilitating sustainable introduction of vaccines in countries where they are most needed.
<i>Project Title</i>	<i>Support to ReAct, Action on Antibiotic Resistance</i>
Partner Country/Region	Global
Implementing Country	Sweden
Collaborating Institution or Partner(s)	ReAct
Project Value	€5,005,505 (SEK 48,550,000)
Duration	2012-2016
Description	ReAct - is an independent global network for concerted action on antibiotic resistance. ReAct aims for profound change in awareness and action to manage the interacting social, political, ecological and technical forces that drive the rising rate of resistant human and animal infection and the rapid spread of resistance within and between communities and countries.
<i>Project Title</i>	<i>Development of a "Preventing Biological Threats" Guide</i>
Partner Country/Region	Global
Implementing Country	United Kingdom, through the International Biological Security Programme, Counter Proliferation & Arms Control Centre (CPACC), Ministry of Defence (MoD) and Canada's Global Partnership Program (GPP), Global Affairs Canada (GAC)
Collaborating Institution or Partner(s)	Coordinated by the University of Bradford (Bradford Disarmament Research Centre), UK, with inputs from other leading academics, countries and units/organisations (e.g. BWC ISU, INTERPOL, Jordan and South Africa)
Project Value	£120,000 (UK contribution £60,000, Canada contribution £60,000)
Duration	2013 – 2016
Description	The UK IBSP and Canadian GPP jointly funded a project to produce a freely available biological security/responsible science educational resource which will furnish educators at university undergraduate level with material and examples

<i>Project Title</i>	<i>Development of a "Preventing Biological Threats" Guide</i>
	<p>suitable for teaching this subject. The aim is to improve biosafety and biosecurity awareness amongst a wide target audience, as well as supporting the universality and implementation of the BTWC. The Guide titled "Preventing Biological Threats: What You Can Do" provides an overview of the potential biological threats in the twenty-first century and what states, organisations, scientists, and the international community as a whole are doing, and can do, to deal with such threats. The Guide includes chapters on dual use and responsible science, international legal agreements including the BTWC, and is currently available in English, Russian, Ukrainian and Arabic. Further translations are in prospect. There is an accompanying Handbook titled "Biological Security Education Handbook: The Power of Team-Based Learning" which seeks to facilitate the dissemination of training content by offering guidance on how to design Team-Based Learning seminars and training courses, in order to involve groups of scientists at all levels in discussion on these issues and what can be done to prevent the potential threats.</p> <p>The Guide and Handbook can both be found on the Bradford University website here: <a href="http://www.bradford.ac.uk/social-sciences/peace-studies/research/publications-and-projects/guide-to-biological-security-issues/">http://www.bradford.ac.uk/social-sciences/peace-studies/research/publications-and-projects/guide-to-biological-security-issues/</a></p>
<i>Project Title</i>	<i>Support to Intergovernmental Organisations to improve biosecurity, biosafety and Member States abilities to accurately and promptly diagnose and report disease outbreaks of national and international concern</i>
Partner Country/Region	Global, including States in the Middle East, North Africa, Central Asia, Caucasus, Afghanistan and Turkey.
Implementing Country	United Kingdom, through the International Biological Security Programme, Counter Proliferation & Arms Control Centre (CPACC), Ministry of Defence (MoD)
Collaborating Institution or Partner(s)	<p>Defence Science and Technology Laboratory (Dstl), UK, implementing the projects on behalf of CPACC</p> <p>World Health Organisation (WHO)</p> <p>World Organisation for Animal Health (OIE)</p> <p>Food and Agriculture Organisation of the United Nations (FAO)</p>
Project Value	£1,000,000
Duration	2012 – 2017
Description	<p>The UK IBSP has funded a package of projects implemented by the WHO, OIE and FAO including (but not limited to):</p> <p><u>WHO</u></p> <p>Providing expert legislative support to selected Member States</p>

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*Project Title*

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*Support to Intergovernmental Organisations to improve biosecurity, biosafety and Member States abilities to accurately and promptly diagnose and report disease outbreaks of national and international concern*

in the Middle East and South Asia to establish a legislative and legal framework that can enable the state to fulfil the IHRs – includes Afghanistan, Pakistan, Djibouti, Jordan (£50K).

Developing operational procedures adapted to Central Asian Member States for detection and response to public health events related to international travel, by improving the communication mechanisms of the national surveillance system (EBS in particular) with the points of entry (£90K).

Identification and assessment of key legislation, regulations and other legal instruments important to IHR implementation and in light of IHR requirements – includes Georgia and Turkey (£90K).

Establishing a relational IHR database for the monitoring, assessment and reporting of IHR core capacities (£90K).

Sustaining learning on International Health Regulations implementation through development of the IHR training toolkit (£90K).

Update and translation of Shipment of Infectious Substances guidelines into Arabic and Russian (£170K).

Global Health Security Preparedness, Developing Mechanisms for the Investigations of Deliberate or Accidental Use of Biological Agents (£90K)

This package of projects specifically builds upon activities previously funded by the IBSP supporting security related IHR implementation and promoting improved biosecurity. These projects are directly related to BTWC implementation and will also support work towards the development of adequate disease surveillance infrastructure to rapidly detect and respond to disease outbreaks whether natural, accidental or deliberate.

OIE

Laboratory twinning projects (£300K) including in MENA and Afghanistan.

National Performance of Veterinary Services (PVS) assessment missions including in Belarus, Azerbaijan and Pakistan (the latter co-funded with US Department of State Biological Engagement Programme) (£100K).

OIE attendance on the Global Health Security Agenda (GSHA) Joint External Evaluation (JEE) mission to Pakistan.

Contribution to the following conferences/meetings:

OIE Biological Threat Reduction Conference (£30K).

The 4th OIE Global Conference on Veterinary Education Bangkok, Thailand (June 2016) (£10K).

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<i>Project Title</i>	<i>Support to Intergovernmental Organisations to improve biosecurity, biosafety and Member States abilities to accurately and promptly diagnose and report disease outbreaks of national and international concern</i>
	Maintaining Global Freedom from Rinderpest (January 2016) 30K Euros.
	Global Framework on Transboundary Animal Diseases (GF-TADS) (30K euros) meeting focused on control of foot and mouth disease (FMD) and Peste des Petits Ruminants (PPR) (Dec 2015) – included presentations on the global strategy for PPR control and eradication.
	Regional Workshop on the OIE procedure for the official recognition of Member Countries disease status and for the endorsement of national official control programme with regard to FMD and PPR (Oct 2016; 30K euros)).
	A short series of regional workshops to improve Rift Valley Fever (RVF) surveillance and control, and to promote the secure, safe and effective use of vaccines for this purpose in support of ongoing OIE and FAO efforts to control RVF in Middle East/Africa (£70K).
	OIE-FAO FMD Reference Laboratory Network Meeting, (Nov 2016; 30K Euros).
	The package of projects is seeking to strengthen recipient laboratories' standards of biosafety and biosecurity, and improve national capacity to accurately and promptly diagnose and report animal diseases of national and international concern.
	<u>FAO</u>
	As detailed above, strengthening plant pathogen biosecurity in selected MENA and Horn of Africa States; needs assessment and capacity development through FAO, Fera Science Ltd and IPPC; New Zealand Ministry of Agriculture (£150K).
	Provision of Good Emergency Management Practice (GEMP) training courses – to improve national/regional capability to prepare for and respond to outbreaks of animal/zoonotic disease in the recipient countries included but was not limited to Kazakhstan, Azerbaijan, Armenia, Georgia, Tajikistan, Ukraine and Uzbekistan (£45K).
<i>Project Title</i>	<i>Joint OIE/FAO Post-Rinderpest Eradication Programme; UK IBSP Contribution to Peste des petits Ruminant (PPR) Vaccine Assessment</i>
Partner Country/Region	Global
Implementing Country	United Kingdom, through the International Biological Security Programme, Counter Proliferation & Arms Control Centre (CPACC), Ministry of Defence (MoD)
Collaborating Institution	UK - Defence Science and Technology Laboratory (Dstl), UK,

<i>Project Title</i>	<i>Joint OIE/FAO Post-Rinderpest Eradication Programme; UK IBSP Contribution to Peste des petits Ruminant (PPR) Vaccine Assessment</i>
or Partner(s)	implementing the project on behalf of CPACC  UK - Rinderpest virus (RPV) World Reference Laboratory at the Pirbright Institute  Food and Agriculture Organisation of the United Nations (FAO)  World Organisation for Animal Health (OIE)
Project Value	£500,000
Duration	2013 – 2016
Description	The UK IBSP has provided funding to support the joint OIE/FAO post-eradication programme to help reduce stocks and improve global security of the rinderpest virus, which is highly pathogenic, highly communicable and potentially devastating to livestock. Primarily affecting cattle, this disease poses a significant threat to food security. After earlier providing support for the development and distribution of a sequestration and security DVD for rinderpest virus, the IBSP is funding a PPR vaccine efficacy trial at the UK's Pirbright Institute. The research indicated that the PPR vaccine did not protect against rinderpest. The results of this work will directly dictate the future direction of post eradication virus as stocks of rinderpest virus will need to be retained for the production and assessment of an effective vaccine.
<i>Project Title</i>	<i>Elimination of a Bioterrorism Threat: Rinderpest Post-Eradication</i>
Partner Country/Region	Global
Implementing Country	Canada - Global Partnership Program  Global Affairs Canada
Collaborating Institution or Partner(s)	World Organisation for Animal Health (OIE)
Project Value	C\$4,153,000
Duration	2016-2018
Description	Canada is supporting OIE's efforts to strengthen global health security and contribution to reducing biological threats globally by reducing the risk of an intentional or unintentional release of the rinderpest virus and by increasing the ability and capacity of countries to rapidly control and then re-eradicate an incursion of the disease if it occurs.
<i>Project Title</i>	<i>Use of IFN-Expressing Vectors in Control of Nipah and Ebola Virus Diseases in Swine</i>

<i>Project Title</i>	<i>Use of IFN-Expressing Vectors in Control of Nipah and Ebola Virus Diseases in Swine</i>
Partner Country/Region	Global
Implementing Country	United States Department of Agriculture/Canada
Project Value	US\$31,533
Duration	2016-2017
Description	USDA ARS and the Canadian National Centre for Foreign Animal Disease are conducting a study to determine if administration of vectors expressing interferon will offer almost immediate protection against Nipah and/or ebolavirus and abolish or significantly reduce initial virus shedding in swine.
<i>Project Title</i>	<i>Mexico-USA-Canada Collaborative Research on Vesicular Stomatitis Diagnosis and Epidemiology</i>
Partner Country/Region	Global
Implementing Country	United States Department of Agriculture/Canada/Mexico
Project Value	US\$50,000
Duration	2016-2017
Description	USDA ARS, the National Center for Foreign Animal Disease in Canada, and the Mexico-USA Commission for the Prevention of Foot and Mouth Disease and other Foreign Diseases (SENASICA-CPA) are collaborating to establish an early warning surveillance system for vesicular stomatitis both in Mexico and the U.S., as well as increasing the diagnostic capabilities for vesicular diseases in all three countries by evaluating existing real-time PCR and related diagnostic tools.
<i>Project Title</i>	<i>Strengthening the Global Regime Against Biological Weapons - Support for the BTWC</i>
Partner Country/Region	Global
Implementing Country	Canada - Global Partnership Program Global Affairs Canada
Project Value	US\$275,000
Duration	2016-2017
Description	Through this Project Canada is supporting efforts to strengthen the Biological and Toxin Weapons Convention (BTWC) and related international efforts to prevent the development and use of biological weapons, by providing targeted support to the BTWC Implementation Support Unit (ISU) to advance universalization and the full and effective implementation of

<i>Project Title</i>	<i>Strengthening the Global Regime Against Biological Weapons - Support for the BTWC</i>
	<p>the Convention. Activities include:</p> <p>an international conference to prepare for the BTWC RevCon, co-sponsored by the Governments of China and Canada in Wuxi, China, 5-7 September 2016;</p> <p>co-sponsorship with the European Union of regional workshops in Brazil (for Latin America) and Addis Ababa (for Africa) in September 2016 to promote comprehensive and cross-regional dialogue on issues to be considered at the Eighth Review Conference;</p> <p>support for the BTWC Sponsorship Programme to enable resource-challenged countries to attend the August 2016 Preparatory Committee (PrepCom) and the November 2016 RevCon, thereby strengthening the Convention's effectiveness; and</p> <p>support for the ISU to conduct critical outreach and to participate, inter alia, in meetings of the Global Partnership and the Global Health Security Agenda (GHSA).</p>
<i>Project Title</i>	<i>OIE Biological Threat Reduction Activities</i>
Partner Country/Region	Global
Implementing Country	Canada - Global Partnership Program Global Affairs Canada
Collaborating Institution or Partner(s)	World Organisation for Animal Health (OIE)
Project Value	C\$2,519,880
Duration	2016-2018
Description	Canada is supporting OIE efforts to mitigate serious biological security threats posed by infectious diseases of animal origin and to assist member countries to better prevent, detect and respond to animal disease outbreaks. These activities include establishment of a "Biological Threat Reduction" ad hoc group to develop specific methodologies for veterinary laboratories related to the investigation of suspicious or deliberate biological incidents; assistance to member countries to implement the Performance of Veterinary Services (PVS) Pathway, which is a key component of both UN Security Council Resolution (UNSCR) 1540 and the GHSA; support for Veterinary Laboratory Twinning projects to address biosafety and biosecurity concerns for high consequence pathogens of security concern; support for OIE PVS experts to participate in the GHSA Joint External Evaluation (JEE) process; and conduct of regional biological threat reduction seminars for

<i>Project Title</i>	<i>OIE Biological Threat Reduction Activities</i>
	national focal points to the OIE.
<i>Project Title</i>	<i>INTERPOL's Chemical and Biological Terrorism Prevention and Response Initiative</i>
Partner Country/Region	Global - West Africa, South East Asia and Middle East and North Africa
Implementing Country	Canada - Global Partnership Program Global Affairs Canada
Collaborating Institution or Partner(s)	International Criminal Police Organization (INTERPOL)
Project Value	C\$4,713,985
Duration	2016-2018
Description	Canada supports activities that will enhance the capabilities of INTERPOL to assist its 190 member countries, particularly those partner countries in the Middle East and North Africa (MENA), Southeast Asia, and West and Sub-Saharan Africa to better prevent, prepare for, detect and respond to Chemical and Biological (CB) terrorism threats through a comprehensive package of programming assistance and countermeasures.
<i>Project Title</i>	<i>World Health Organisation (WHO) Biological Threat Reduction Programming</i>
Partner Country/Region	Global
Implementing Country	Canada - Global Partnership Program Global Affairs Canada
Collaborating Institution or Partner(s)	World Health Organisation (WHO)
Project Value	C\$3,287,803
Duration	2016-2018
Description	Through this project, Canada's Global Partnership Program is supporting WHO to address multiple high-priority, high-value biological threat reduction activities, including: strengthening global biological security (biosecurity) and biological safety (biosafety); improving collaboration at the "animal-human interface" to ensure more effective and rapid response to zoonotic disease threats (i.e. disease that originates in animals but can spread to humans); and enhancing global early warning and risk monitoring capacities to detect, assess and inform about global



<i>Project Title</i>	<i>World Health Organisation (WHO) Biological Threat Reduction Programming</i>
	biological threats.
<i>Project Title</i>	<i>Collaboration with Public Health Agency of Canada to Strengthen Global Biosecurity &amp; Biosafety</i>
Partner Country/Region	Global
Implementing Country	Canada - Global Partnership Program Global Affairs Canada
Collaborating Institution or Partner(s)	Public Health Agency of Canada
Project Value	C\$508,000
Duration	2016-2018
Description	This Project will make tangible contributions to strengthening global biosafety and biosecurity by supporting PHAC to, inter alia, a) enhance collaboration between the International Experts Group on Biosafety and Biosecurity Regulation (IEGBBR) and priority GPP countries that require technical support to strengthen their national biosafety and biosecurity policies and capacities, and b) assist at least five (5) countries to establish whole-of-government national biosafety and biosecurity systems.