2020 ANNUAL REPORT

Tackling Global Challenges During a Pandemic

CRDFGLOBAL

CEO Letter

A Message From Our CEO

CRDF Global's 25th anniversary was a year to remember. The COVID-19 pandemic spread throughout the world, a dramatic reminder of vulnerabilities inherent in our highly interconnected world. We faced and overcame unprecedented challenges with closed borders, cities on lockdown, and supply chains interrupted.

With prior experience delivering remote engagements with partners in conflict zones, CRDF Global rapidly retooled many of its programs to a virtual format. Over the course of the year, we delivered more than 160 virtual trainings, workshops, conferences, and events. Internally, we quickly adopted an effective business rhythm working remotely and redeployed some staff in our travel and logistics division to other areas. We are proud that we had no layoffs during this time and instead hired 79 additional personnel. The downtime also allowed us to renovate our regional offices in Virginia, Amman, and Kyiv.

25 years ago, CRDF Global's origin was based on a shared understanding that threats and opportunities often go hand in hand. The fall of the Soviet Union and the emergence of the newly independent states offered tremendous opportunities. But they also posed a threat in the form of the proliferation of WMD scientific knowledge and skills. CRDF Global provided a bridge for many scientists and helped reform institutions that would allow them to prosper and contribute to their national economies and cultures. Over the years, CRDF Global evolved along with the concept and application of cooperative threat reduction, bringing its unique blend of entrepreneurship, grantmaking, technical acumen, and international security awareness to changing challenges in counterproliferation, biosecurity, strategic trade management, cybersecurity, and other areas.

In 2020 we again stepped into the most pressing challenge, a global pandemic on a scale not experienced since 1918. With support from the Centers for Disease Control, we helped partner nations improve emergency health preparedness, conduct effective disease surveillance, strengthen borders, and improve laboratory systems. This work is ongoing and growing.

I invite you to go over our year in review and discover our Women in Science and Security initiative, highlights of our work in food security, innovation ecosystems, and international visitor exchange, as well as our security assistance missions. Also, hear from our incredible staff about our work and who we are in their words. I am grateful to lead this enterprise and extremely proud of our growing, resilient, and dedicated team.

Sincerely,



MIKE DIGNAM President and CEO





Who We Are

In 2020, CRDF Global continued the journey to embody our values in our processes, policies, and decisions. Despite the challenge of a pandemic and operating in a virtual environment, our intent to do the right thing, the right way, never wavered.



WE HIT OUR 25TH ANNIVERSARY IN 2020

FIMELINE

25 Years of International Collaboration



1992-1995

The Civilian Research and Development Foundation is Born

The Freedom Support Act passes, calling for a "research and development foundation" to rescue the scientific community of the former Soviet Union and support collaboration between US and former Soviet scientists on civilian-oriented projects. This paves the way for the US Civilian Research & Development Foundation (CRDF) to be founded in 1995. Almost immediately after, CRDF launches the Cooperative Grants Program to support joint U.S.-Eurasia research teams and receives over 3,000 proposals.



1998

Launch of the Grant Assistance Program

CRDF launches the Grant Assistance Program (GAP) as an outgrowth of its own internal mechanism to administer its awards and activities in the former Soviet Union. Government agencies, industry, academic institutions and other organizations in support of scientific research use the program to administer collaborative R&D projects in basic and applied sciences, and to promote the permanent transition of former weapons scientists to civilian research activities.



1998

Promoting Research and Education in Russia

The Basic Research and Higher Education (BRHE) program launches to support research capacity in Russian universities. Throughout the program's 14-year span, CRDF partnered with the Ministry of Education and Science of the Russian Federation to establish 20 Research and Education Centers in 18 cities across Russia. The Russian government later independently established over 300 similar university-based research and education centers based on the BRHE model.



• 2003

Fighting Terrorism Through Cooperative Research

In the wake of the events of September 11, 2001, CRDF initiates the Special Antiterrorism Cooperative Research Competition for 17 teams of U.S.-Eurasian scientists to work together to identify innovative solutions aimed at neutralizing threats. These research collaborations yielded the development of a more sensitive, nondestructive method for detecting explosives in personal luggage, postal parcels, and shipping containers, as well as a new explosion-mitigating form of concrete to decrease the effects of terrorist-instigated vehicle crashes.



2004

2005

Engaging New Regions

For the first time in its history, CRDF expands its mission outside of Eurasia and hosts six Iraqi scientists in Washington, DC to help them apply their skills to civilian work and rebuilding civilian science in Iraq. These efforts help set the foundation for the Iraqi Virtual Science Library in 2008.



Celebrating Individuals in International Scientific Cooperation

CRDF organizes an annual gala to distribute the George Brown Award for International Scientific Cooperation. In recognition of the late Congressman George Brown, the gala honors his role in promoting international science cooperation, celebrating individuals from the policy, business, science, and technology communities who have contributed substantially to furthering international science and technology cooperation.



2007

Bringing Cutting-Edge Assistive Technology to the U.S.

CRDF helps bring cutting-edge assistive technology to the U.S. by providing the Russian tech company, Gravitonus, with market validation research, business consultation, and access to American investors. The Alternative Computer Control System (ACCS) would allow those living with disabilities to fully operate a computer using a wireless, iPod-like sensor, thus helping them lead independent lives by means of a tool that was more accurate, comfortable, faster, and less expensive than those already on the market.



Who We Are

wnat we Accomplished



2007

Bridging Countries Through Science

CRDF and partners in Armenia, Azerbaijan, and Georgia organize the South Caucasus Cooperative Research Program, the first grant competition to involve project teams with collaborators from the U.S. and each of the countries in the South Caucasus. Of the more than 300 South Caucasus project team members, 88 were former weapons researchers seeking to apply their expertise to the solution of civilian research problems.



2007

Strengthening Individuals and Building Relationships in Agriculture

CRDF's partnership with the U.S. Department of Agriculture begins with a cooperative agreement to fund research projects, develop proposals, and facilitate international agricultural programs with the Agricultural Research Service. By 2017, the organization's portfolio expands to include the U.S. Forest Service and supports contract oversight, project management, procurement services, travel and logistics for events, and consultant support in 105 countries with more than 500 activities.



2008

Opening the Gateway to Change

CRDF helps Iraqi scientists and engineers access up-to-date scientific data, expand their research horizons, and contribute to their nation's reconstruction through the Iraq Virtual Science Library (IVSL). An online database that provided free, full-text access to more than a million peer-reviewed articles and a large collection of educational materials, the IVSL contributed to a three-fold increase in the number of publications made by Iraqi scientists in the world's leading journals—from approx. 80 publications in 2005 to almost 240 in 2008. CRDF Global later establishes Virtual Science Libraries in Afghanistan, Algeria, Armenia, Morocco, Kazakhstan, Kyrgyzstan, and Tajikistan, serving more than 350 academic institutions.



2009

Laying The Foundation For New Partnerships

CRDF Global participates in the first-ever U.S. science delegation to the Democratic People's Republic of Korea. As part of a six-person delegation to Pyongyang, CRDF Global staff members gain rare wide-ranging access to DPRK scientists and promote academic research exchanges with the U.S. Distinct from other delegations that travel to the DPRK for humanitarian, economic or nonproliferation purposes, this delegation is one of the first significant efforts focused on science cooperation.





The Start of a New Chapter

To mark the 15th anniversary of the foundation, CRDF becomes CRDF Global.



2012

2010

Expanding Global Innovation Initiatives

The Global Innovation through Science and Technology (GIST) program, which started in 2010 to promote technology commercialization and entrepreneurship in developing and transitional economies, expands into new regions, including a GIST Startup Boot Camp in Istanbul. The same year, the GIST Transformers Journey invites 17 emerging entrepreneurs to the U.S. to attend trainings, and networking events at leading companies and institutions, including Google, MIT, Orrick, Stanford University, and the White House.

2012

International Collaborations in Tuberculosis Research

To assist in global efforts to better prevent, diagnose, and treat tuberculosis (TB), and particularly in the context of HIV, CRDF Global partners with the National Institutes of Health's National Institute of Allergy and Infectious Diseases (NIAID) on the Regional Prospective Observational Research for Tuberculosis (RePORT) program. The RePORT program is a global network of scientists and investigators leading clinical and laboratory TB research in China, Brazil, South Africa, India, Indonesia, and the Philippines, with the goal of addressing local and global research priorities, , particularly in support of the development of rapid, sensitive, low cost diagnostics; identification of biomarkers to assess TB treatment response and risk of developing disease; and understanding TB immunology and pathogenesis to inform vaccine development. The program has been successful in advancing regional TB science, strengthening TB research capacity and infrastructure and fostering research collaboration globally.



2013

Empowering Women in Nonproliferation Around the World

The Robin Copeland Memorial Fellowship launches, providing women from scientific, technical, educational, and policy backgrounds in emerging countries the opportunity to deepen their understanding of contemporary nonproliferation issues while working alongside influential leaders.

6

CRDFGLOBAL



2013

Sibbiopharm: From Bioweapons to Biotechnology

Funded by the U.S. Department of State's BioIndustry Initiative Program, CRDF Global concluded a large-scale, decade-long transformation of a former biological plant in Siberia into a biotechnology production facility that now employs hundreds of scientists and contributes to the Russia's agriculture and food industries.



2014

Securing Chemical Laboratories

CRDF Global administers Chemical Security Improvement Grants to improve the physical and procedural security of chemical laboratories and facilities around the world. These awards aim to enhance the physical and/ or procedural security of industrial and academic chemical facilities by preventing the accidental or intentional misuse of hazardous chemicals.



2014 Fighting Ebola in West Africa

During the Ebola outbreak in West Africa, CRDF Global supports hands-on trainings in Liberia to reduce Ebola transmission through a community home-based care program for 3,000 infected and 50,000 non-infected households. Programming includes the mass education of community members, health workers, and community leaders.



2014

Galaxy Serpent

CRDF Global helps launch Galaxy Serpent, a first-of-its-kind virtual tabletop exercise in which teams of scientists from around the world test the efficacy of model national nuclear forensics libraries (NNFLs) to better address issues of nuclear smuggling and forensics. After recently concluding its 4th iteration, Galaxy Serpent has featured teams from over 30 countries throughout Dr. Borgardt's stewardship. Participating scientists have used their experience in this internationally collaborative exercise to develop in-country human and technical capacity and ultimately inform their own countries' efforts in developing NNFLs.





2015

Sustaining Innovation Ecosystems

CRDF Global concludes the Technology Commercialization Project (TCP) in Kazakhstan. With funding from the Kazakh government and the World Bank, the TCP bolstered Kazakhstan's nascent innovation community by improving the commercial relevance of scientific research within the country.



2017

Connecting Emerging Leaders Around the Globe

CRDF Global joins the Global Ties U.S. network as an implementing partner of the International Visitor Leadership Program (IVLP). Working closely with community-based organizations to bring emerging leaders from around the world to the U.S., this partnership allows us to continue our mission of building a safe and secure world through international collaboration in the fields of science diplomacy and security.



2017

Increasing Technical Capacity in Biosafety & Biosecurity

CRDF Global co-manages the Cooperative Threat Reduction Biosciences Fellowship Program (CBFP) to promote biological safety and security (BS&S) by increasing technical capacity for scientists in the Middle East, and to establish a regional network for sustainable cooperation on laboratory diagnosis and BS&S standards.



2019

Entering the Realm of Cybersecurity

The organization's first hackathon for students in Kyiv kickstarts the launch of its cybersecurity programs that aim to strengthen cyber infrastructure, expand information security workforces, and build cybersecurity culture



2020

Breaking Barriers in the New Decade

Following its 2019 Breaking Barriers event, CRDF Global releases a best practices guide to help organizations identify, examine, and propose solutions to barriers that women experience when pursuing STEMM and security-related paths.



MISSION AREAS



OUR CAPABILITIES



Full-Cycle Grant Program Management



Curriculum Development





Institution Capability Development



Travel & Logistics



Physical Security Updates



Workshops

Equipment Procurement



Regional Programing







Fellowships & Mentorship





Security Assessments



Remote Solution



Peer Review & Competition Management



2020 presented unforeseen challenges for everyone, and we were no exception. Despite a global pandemic, we are proud to have continued to grow our impact and establish new partnerships. Identifying innovative solutions, adapting to new systems, and continuing our technology transformations, we collaborated with foreign governments, international organizations, research institutions, and local partners to continue our mission of building a healthier, more sustainable world.

OUR IMPACT

\$56.2 M \$22 M 920 TOTAL NUMBER OF AWARDS TOTAL COMPLETED COMPLETED PROJECT PROJECT VALUE VALUE GROWTH +2,500 457 +140PARTICIPANTS NUMBER OF COUNTRIES PARTNER INSTITUTIONS IMPACTED WE WORKED WITH IMPACTED

SELECT PARTNERS & FUNDERS





OVERCOMING THE PANDEMIC OUR TRANSITION INTO THE VIRTUAL WORLD

ONBOARDING SESSIONS

"Despite being in a virtual environment, we continued to focus on people and were able to onboard 79 new employees and 18 interns in a personal manner that stayed true to our culture."

TECHNOLOGICAL TRANSFORMATIONS



New systems Implemented in 2020

TOTAL NUMBER OF VIRTUAL ENGAGEMENTS

+160

Virtual Conferences, Events, Trainings, and Workshops



CONTINUED STAFF ENGAGEMENTS





HIGHLIGHTS OF OUR YEAR



When the COVID-19 pln 2020, CRDF Global expanded its strategic efforts in global health security with new work acquired through the U.S. Centers for Disease Control and Prevention (CDC) in the Central Asia Region, South and Southeast Asia Region, and Middle East-North African Region to enhance regional and national preparedness to prevent, detect, and respond to COVID-19 and other health threats.

Collaborating with national stakeholders, CRDF Global strengthened public health emergency management systems by providing technical assistance to develop policies, plans, and procedures; supporting the renovation of public health emergency operations centers; training key personnel; and enhancing national laboratory capacities to support disease surveillance priorities. CRDF Global also worked with national and regional partners to develop core capacities for routine public health functions and effective public health responses at designated points of entry, such as border crossings, airports, and maritime ports.



Expanding International Research Collaborations to Fight COVID-19 In 2020, CRDF Global awarded funds to four international research teams to further global knowledge on preventing, detecting, and responding to COVID-19. Under the auspices of the (three-year) e-ASIA Research Program, researchers from the U.S. and East and Southeast Asia began collaborations to foster the development of diagnostics, therapeutics, preventive strategies, and effective vaccination against COVID-19 – all while strengthening multilateral collaborations between their countries.

Over the next three years, researchers at four U.S. universities will partner with their counterparts in Japan, the Philippines, Thailand, and Vietnam to analyze COVID-19 diagnostic and vaccine efficacy, investigate the longterm neurological impacts of the virus, and study factors contributing to COVID-19 susceptibility, host immunity, and disease severity.

HIGHLIGHTS OF OUR YEAR (CONTINUED)



Securing Chemical Facilities in Lebanon Following the ammonium nitrate explosion in Beirut on August 4, 2020, chemical industries across the Middle East have started to re-examine security practices that leave them vulnerable to accidental or intentional chemical incidents as well as the theft of chemicals for illicit purposes.

This year, CRDF Global joined the Lebanese CBRN National Commission in their efforts to re-assess chemical security management and chemical inventory practices to establish a more solid foundation for public safety and security of facilities. Through remote and on-site consultations to key chemical and storage facilities across Lebanon, CRDF Global's chemical security and neutralization expert team assessed vulnerabilities and developed guidance to better secure weaponizable chemicals and prevent accidental or malicious chemical incidents.



Opening the Dialogue on Nuclear Security in South Asia

CRDF Global, in partnership with the World Institute for Nuclear Security (WINS), conducted the Nuclear Security and Nonproliferation Webinar Series for academics, students, nuclear industry representatives, and researchers from universities and research and policy institutions from South and Southeast Asia. Twelve external subject-matter experts from 10 countries presented various nuclear security topics and facilitated discussions with participants, providing an open space to share best practices and thoughts on how to sustain peace and security in the region. All sessions included different learning approaches, including prerecorded materials, guizzes, live sessions, interactive lectures, and panel discussions. CRDF Global also created a virtual course using their proprietary Remote Training Expert Discussion and Onsite Exercises (REDOX) platform with pre-recorded lectures, quizzes, a discussion board, and additional resources.

HIGHLIGHTS OF OUR YEAR (CONTINUED)



Strengthening Cyber Defense Systems in Ukraine

While many daily activities came to a halt during the COVID-19 pandemic, cyber-attacks did not. And as more industries rely on virtual communication technologies to conduct business, effective cyber trainings remain of vital importance in ensuring the safety and integrity of private information. In April 2020, CRDF Global supported Ukraine's National Security and Defense Council (NSDC) in hosting the country's first large-scale virtual hackathon to strengthen cyber defense systems among critical infrastructure (CI) and public institutions in Ukraine. 50 IT specialists from government agencies participated, along with 10 volunteer "ethical hackers" from leading cyber security companies. IT specialists learned approaches to secure systems against cyber-attacks and then tested their new skills against volunteer hackers in a highly interactive virtual laboratory made to emulate real-world scenarios. After the competition, IT specialists, volunteer hackers, and organizers discussed the best protective measures observed in the training.



Leading the Way in Virtual Exchange Programming

When the COVID-19 pandemic forced a pause on all inperson international exchange programs, CRDF Global's IVLP team set out to host the first hybrid virtual IVLP. The program - Combatting Gender-Based Violence: A Project for Brazil - started off like any other in-person project, but was swiftly moved into a virtual format after visitors were forced to return home due to travel restrictions.

While this was new territory for the entire exchange network, CRDF Global did not want this pause in programming to deny participants the invaluable opportunity to discover common ground with their U.S. counterparts and learn new approaches to combatting gender-based violence. In moving to virtual programming, CRDF Global's IVLP team gained firsthand experience scheduling, setting expectations, organizing content, managing language barriers, and facilitating group bonding in a fully virtual environment. As a result, subsequent IVLPs were successfully moved online over the course of the pandemic.

HIGHLIGHTS OF OUR YEAR (CONTINUED)



CRDF Global Supports Innovative & Female-Led Entrepreneurship in Ukraine

As part of our continued support for innovation and diversity globally, CRDF Global held two entrepreneurship events as part of the ongoing Science and Technology Entrepreneurship Program (STEP) in Ukraine. Both events were held in a hybrid format due to COVID-19.

The first event was a large startup competition of entrepreneurs titled the IT Arena Startup Competition. The event was attended by over 4,000 entrepreneurs who watched as 40 startups competed for top prizes. First place went to Tradomatic, an online agribusiness pairing service, second place to IOON, whose pocket device changes water into a sanitizer, and third place to ORTY, which enables restaurants to quickly launch digital self-service.

For the second event, CRDF Global partnered with Ukrainian Hub on the Female Leadership Program to host a female leadership program for startup founders across Eurasia. 120 female entrepreneurs received expert training in business and entrepreneurship. Four participants received \$5,000 grants for their projects relating to disease prevention, agriculture, AI, smart prosthetics, and virtual education programs.



Bridging the Gap Between Animal Health and Food Security

In 2020, CRDF Global secured a new partnership with the U.S. Department of Agriculture, which led to CRDF Global organizing the National Bio and Agro-Defense Facility's (NBAF) first Scientific Symposium. Over the span of five days, experts presented their research on disease prevention efforts and global responses to food security threats like African swine fever and foot and mouth disease. The virtual presentations and moderated roundtable discussions centered on viral disease pathogenesis, next-generation diagnostics, next-generation vaccines, epidemiology and disease ecology, and emergency response and research.

More than 1,000 people registered for the event from 39 different countries. Participants worked in government agencies, non-governmental organizations, universities, and research institutions. Through scientific collaborations with the National Bio and Agro-Defense Facility and the U.S. Department of Agriculture, CRDF Global is able to connect experts in animal disease and food security with partners in the field at every level—from individual farmers to government leaders all over the world.

CRDFGLOBAL

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HIGHLIGHTS OF OUR YEAR (CONTINUED)



Training Jordanian Customs Officials to Regulate WMD & Dual-Use Goods Under the auspices of the U.S. Department of State's Export Control and Related Border Security (EXBS) Program, CRDF Global subject matter experts joined with the Pacific Northwest National Laboratory to prepare Jordanian Customs Officials for the implementation of a new bylaw meant to regulate trade in goods that may be used in the development of weapons of mass destruction. Approved in August 2020, the Regulations for Customs Control on Dangerous Goods and Dual Use Materials bylaw creates a structure that allows Jordanian Customs to monitor the transit and transshipment of dangerous and dual-use goods through the country's territory. This is achieved via a licensing system, which allows merchants and shippers to submit applications for approval by Customs if a given transaction is deemed legitimate and not in violation of existing regulations. CRDF Global subject matter experts in strategic trade control and border security Dr. Scott Jones, Dr. Michael Beck, and Dr. Dan Joyner have assisted with the drafting of implementing regulations pertaining to the Bylaw, as well as the development of license applications to be used once the system is live.



How We've Grown

EMPLOYEE GROWTH AT A GLANCE

OUR GROWTH IN 3 REGIONAL HUBS

189 Total Employees





WOMEN IN SCIENCE

We promoted the active involvement and leadership of women in STEM and CBRN security fields by opening access to professional development opportunities, creating regional peer networks, and linking women with regional and international role models to serve as mentors. That effort led to the development and publishing of the "Best Practices for the Advancement and Inclusion of Women in STEMM and National Security" guide in English, Arabic, and Russian.



OFFICE RENOVATIONS

We improved our office facilities in all 3 hub locations, making them more accessible and aligned with our brand image and values.



STAFF HIGHLIGHTS

As a global organization, we are proud of our cultural diversity. The unique perspective each of our employees bring to each initiative allows us to achieve excellence through empathy and collaboration.



CRDFGLOBAL

Financial **Overview**

| | STATEMENT OF ACTIVITIES (USD) | 2020 | 2019 (thousands) |
|------------|---------------------------------|--------------|----------------------------|
| REVENUES | Grants & Contracts | \$28,995,584 | \$32,697 |
| | Solutions Services | \$2,162,999 | \$2,612 |
| | Investment (Loss) Income, Net | \$1,962,742 | \$2,447 |
| | Total Revenues, Net | \$33,121,325 | \$37,757 |
| EXPENSES | Program | \$32,474,577 | \$26,776 |
| | General & Administrative | \$1,233,492 | \$8,735 |
| | Total Expenses | \$33,708,069 | \$35,511 |
| NET ASSETS | Change in Net Assets | (\$586,744) | \$2,245 |
| | Net Assets at Beginning of Year | \$11,560,989 | \$9,316 |
| | Net Assets at End of Year | \$10,974,245 | \$11,561 |

The information presented here is drawn from the audited financial statements of CRDF Global. 2020 Statements were audited by RSM US, LLP in accordance with Generally Accepted Auditing Standards.

2020 Board of Directors

Anne Petersen (Chair)

Raymond R. Johnson Cathy Mannick Tomas Diaz de la Rubia E. William Colglazier Karen Holbrook Jill Hruby Raymond Orbach Gerald W. Parker Alan I. Leshner Mr. Paul Longsworth Maxine <u>Savitz ____</u>



Contact Us

Questions about CRDF Global or this year's Annual Report?

Please email us at <u>info@crdfglobal.org</u> or visit us at <u>www.crdfglobal.org</u>

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Safety, security, and sustainability through science, innovation, and collaboration.



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