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50 years of partnering to save lives

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glimpse

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11 Library Committee of the Bangladesh Parliament at ICDDR,B

Representatives of the Library Committee of the Bangladesh Parliament and concerned officials of the Parliament Library and Parliament Secretariat visited the ICDDR,B's Library on 23 May 2010...

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Commemorative Stamp Released on the Golden Jubilee of ICDDR,B

To mark the golden jubilee of ICDDR,B, a commemorative stamp was issued by the Ministry of Post and Telecommunications, Government of the People's Republic of Bangladesh. The special stamp was released at a reception held at the Radisson Hotel in Dhaka on 20 June 2010 by Chief Guest Mr Abul Maal Abdul Muhith, Hon'ble Finance Minister, Government of the People's Republic of Bangladesh. The event took place following the June 2010 meeting of the ICDDR,B Board of Trustees (BoT). Dr Alejandro Cravioto, Executive Director of ICDDR,B, welcomed the guests and expressed his views on how the collaboration between the Bangladesh Government and ICDDR,B is helping save lives over the years with generous support from donors of both home and abroad.

The event was graced by Dr AFM Ruhul Haque, Hon'ble Minister for Health and Family Welfare; Mr Abul Kalam Azad, MP, Hon'ble Minister for Information and Cultural Affairs; and Mr Rajiuddin Ahmed Raju, Hon'ble Minister for Post and Telecommunications as Special Guests. The ICDDR,B's Board of Trustees, some former chairs, former directors, senior scientists, and alumni of ICDDR,B, along with representatives of donor agencies, were also present on the occasion.



Hon'ble Minister for Health and Family Welfare Dr AFM Ruhul Haque said, "I am very happy to see today that ICDDR,B has come a long way since it was first housed in the building of the Institute of Public Health to have its own campus with a full-fledged hospital and its own eight-storey building with the assistance of the Government of Bangladesh. The Government of Bangladesh has made considerable contributions towards ICDDR,B not only financially but also by recognizing ICDDR,B as a national asset. I would like to see the special relationship that ICDDR,B has nurtured with the Government of Bangladesh over the past forty years and continue to provide and share its expertise in the field of public health for the greater benefit of the people of Bangladesh. I wish ICDDR,B all success in its future endeavours. And in this regard, the Government of Bangladesh shall extend all its support to ICDDR,B."

Hon'ble Minister for Information and Cultural Affairs Mr Abul Kalam Azad, who also happens to be an ICDDR,B alumnus, stated: "I would like to congratulate all the staff members of ICDDR,B—the

My association with ICDDR,B goes back to its earliest days, when it was established as PAK-SEATO Cholera Research Laboratory (CRL). As a junior member of the Pakistan Civil Service, I escorted the President of Pakistan Ayub Khan to the CRL in Mohakhali. Later in 1978, during the internationalization process of this institution, I was serving as Secretary, Economic Relations Division (ERD) when CRL was re-established as ICDDR,B. I am very proud of ICDDR,B.

Mr Abul Maal Abdul Muhith

scientists and researchers for their commitment and hard work to maintain the international standards of ICDDR,B. You have been, and shall continue to be, the backbone of this institution. I also congratulate the medical staff at Dhaka and Matlab hospitals for their relentless efforts in caring for diarrhoea patients; you have done a remarkable job in saving the lives of thousands of people over the past few decades."

Dr Nicolaus Lorenz, Chair, ICDDR,B Board of Trustees, said "ICDDR,B's success over the past five decades is largely due to its highly-qualified scientific and support staff. I would like to see this institutional asset be further nurtured so that the Centre is well-prepared to face the global health challenges that may come up in the future. On behalf of the Board of Trustees, I wish the very best to the Centre and hope that as many as possible of us will be here to celebrate 50 years from now the 100th anniversary."

Dr William Greenough, Former Director of ICDDR,B, reminisced on his long association with the Centre, thus: "I feel blessed and fulfilled to have participated in the founding days of this great institution. It has been without doubt the greatest privilege of my life to have participated in the initial research effort that helped lay the ground work for the discovery of ORT as well as the many other extraordinary contributions to global health that Bangladesh has made through its lasting support to ICDDR,B. This support came from the Government of Bangladesh as well as other remarkably effective non-profit organizations, such as the Bangladesh Rural Advancement Committee (BRAC), the Grameen Bank, and many others. Upon my return to Dhaka in 1977, the Government of Bangladesh had the remarkable foresight to establish a truly international research institution on its own soil and CRL became ICDDR,B."

Other dignitaries who spoke on the occasion include the three members of the ICDDR,B Board of Trustees from Bangladesh (Mr Shaikh Altaf Ali, Secretary, Ministry of Health and Family Welfare; Mr M Mosharraf Hossain Bhuiyan, Secretary, ERD, Ministry of Finance and Planning; and Professor Dr Md Suhrab Ali, Retd Member, Bangladesh Public Service Commission and former President, Bangladesh Medical Association) and Dr Firdausi Qadri, Senior Scientist and Head, Immunology Laboratory, ICDDR,B.

ICDDR,B and the Fogarty International Clinical Research Scholars & Fellows Program

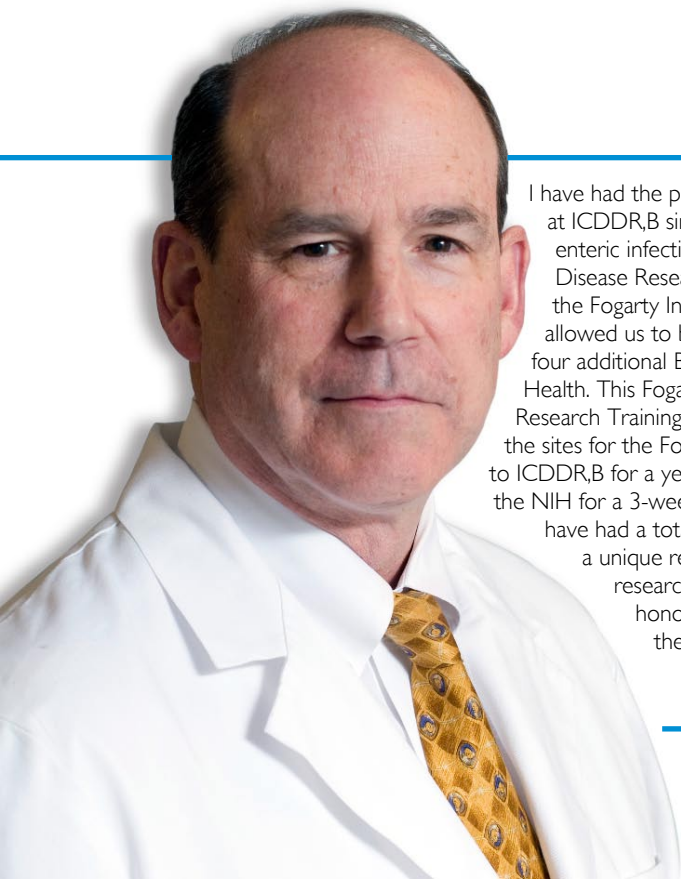
As an international arm to the US National Institutes of Health (NIH), the John E Fogarty International Center for Advanced Study in the Health Sciences, established in 1968, developed a multi-faceted chain of collaborations with academic and research institutions for capacity-building of the future leaders in global health research in 29 host sites of 19 nations. The areas of research include: HIV/AIDS, sexually transmitted infections; enteric infections; malaria; substance abuse; mental health; oncology; diseases of the heart, lung, and blood; neurology; ophthalmology; and dietary approaches in nutrition.

The Fogarty International Center is dedicated to advancing the mission of NIH through various research training grants and awards that include the following:

- Fogarty International Clinical Research Scholars & Fellows Program
- AIDS International Training and Research Program
- Fogarty International Collaborative Trauma and Injury Research Training Program
- Framework Programs for Global Health
- Global Infectious Disease Research Training Program
- Global Research Training in Population Health
- Independent Scientist in Global Health Award
- Informatics Training for Global Health
- International Research Ethics Education and Curriculum Development Award

- International Clinical, Operational, and Health Services Research and Training Award
- International Clinical, Operational, and Health Services Research and Training Award for AIDS and Tuberculosis
- International Collaborative Genetics Research Training Program
- International Malaria Clinical, Operational & Health Services Research Training Programs Planning Grants
- International Research Scientist Development Award for US Post-doctoral Scientists
- International Training and Research in Environmental and Occupational Health
- Medical Education Partnership Initiative
- Millennium Promise Awards: Non-communicable Chronic Diseases Research Training Program

Although ICDDR,B may have access to many of the above grants and awards, current collaboration in the Fogarty International Clinical Research Scholars & Fellows (FICRS-F) Program has been continuing over the years. The mother organization—National Institutes of Health—has been collaborating with ICDDR,B for about 15 years through various research partnerships with Massachusetts General Hospital (MGH) of the Harvard Medical School. The primary focus of the present story is on collaborations between the Fogarty International Center and ICDDR,B which is currently hosting two of the total 29 sites for the Fogarty International Clinical Research Scholars & Fellows Program, with training of ICDDR,B scientists under an exchange programme. Of the two Fogarty sites at ICDDR,B, one is for enteric diseases, and the other one for non-communicable diseases.



I have had the pleasure of working in collaboration with Dr Firdausi Qadri and other investigators at ICDDR,B since 2000, with a focus on human immune responses to cholera and other enteric infections. This work has been supported by an International Collaboration in Infectious Disease Research grant from the NIH. During 2001-2006, we also had a training grant from the Fogarty International Centre under the Actions in Building Capacity Program, which allowed us to bring two Bangladeshi scientists to the USA for laboratory training as well as four additional Bangladeshi investigators to get masters degrees at the Harvard School of Public Health. This Fogarty ABC Program was followed by the current Fogarty Global Infectious Disease Research Training Program, run by Dr Edward Ryan. Since 2005, ICDDR,B has also been one of the sites for the Fogarty International Clinical Research Scholars Program; this brings a US student to ICDDR,B for a year of training, coupled with a Bangladeshi scientist who gets trained with them at the NIH for a 3-week course in the summer, followed by a year of support back at the Centre. We have had a total of six US and Bangladeshi Scholars trained so far in this program. ICDDR,B is a unique resource that combines outstanding patient-care, wonderfully-innovative clinical research, strong programs for training, and a commitment to service. It has been an honor and a pleasure to collaborate with Dr Firdausi Qadri and other individuals at the Centre over the past 11 years.

Professor Stephen B Calderwood
Harvard Medical School, USA

It should be made clear that Fogarty's contribution is not meant for helping students to earn academic degrees—it rather supplements the knowledge-base of students already enrolled in various universities with self or other financial support. At an advanced stage of their academic studies, Fogarty offers funds for specific assignments in a mandated field of health sciences for their orientation towards global health research. After initial briefing at the NIH, the pairs of young scientists in the Scholars Program are sent to the host sites around the world to accomplish the assignments. The Fogarty International Clinical Research Scholars Support Center at Vanderbilt University, USA, offers a one-year clinical research training for graduate-level US students in the health professions. This is an opportunity for highly-motivated individuals to experience mentored research training at the top-ranking NIH-funded research centres in developing countries in Africa, Asia, and the Americas, with the selected US scholar matched with an international scholar with similar training and background.

Under the Scholars Program (initially called the Fogarty/Ellison Program) initiated in 2003, the first cohort of scholars pursued clinical research training during 2004-2005. Since 2007, the Program came under the administrative control of the Vanderbilt University, for those international sites that have no US partner institutions. The Principal Investigator of the Program at the Vanderbilt University is Professor Sten Vermund. Outstanding US graduate students with research interests in any of the above disciplines are paired with foreign counterparts in the low- and middle-income countries through a mechanism which provides opportunities for them to build capacity in global health research.

Site for enteric diseases

The Fogarty site at ICDDR,B for enteric diseases is housed in the Immunology Laboratory of ICDDR,B, with Senior Scientist and Head of the Laboratory Dr Firdausi Qadri as Principal Investigator and mentor of the Fogarty Scholars and Fellows. The Principal Investigators of the Programme housed at the Massachusetts General Hospital, Harvard Medical School, are: Professor Stephen B Calderwood and Dr Edward T Ryan. They also mentor the Fogarty Scholars and Fellows during the training period. An interactive communication is maintained between the sites by conference calls and by visits of scientists from the two sites to each other's institutions.

This site at ICDDR,B had its first cohort in 2005-2006, with Eric J Nelson as the US Scholar and Ashraf Islam Khan as the local counterpart. With no break in the series, the fifth cohort just concluded their work in June 2010, with Alison Kuchta as the US Scholar and Taufiqur Rahman Bhuiyan as her local counterpart. Other pairs over the years were: Channa Jayasekera (USA) and Yasmin Ara Begum (ICDDR,B) in 2006-2007, Aaron B Harris (USA) and Md Saruar Bhuiyan (ICDDR,B) in 2007-2008, Ana Weil (USA) and Fahima Chowdhury (ICDDR,B), Emily Kendall (USA) and Azim Hossain (ICDDR,B) in 2008-2009.

The new pair selected for 2010-2011 in this site is: Sweta Patel (USA) and Farhana Khanam (ICDDR,B).



Partnering in training, education, and capacity-building has markedly benefited both teams in this ongoing international collaborative effort. The cross-training and collaboration of having ICDDR,B partners working in the laboratories and institutions at Harvard/Massachusetts General Hospital, and US doctors and scientists coming to work in Bangladesh has been wonderful. These interactions have had significant impact on the long-term training and development for all involved, have greatly facilitated our scientific advances, and represent superb investments in education and long-term training both at the Centre and MGH-Harvard.

Edward T Ryan
Director, Tropical & Geographic Medicine Center
Massachusetts General Hospital



The Fogarty Program over the years has provided a partnership between trainees from widely-differing backgrounds and has succeeded in opening up minds and developing researchers who have become highly competent and successful scientists. In my opinion, our collaboration with Professor Steve Calderwood and his leadership has helped steer us with our large group of young scientists with open and searching minds towards a meaningful career in cholera and other enteric infections.

Dr Firdausi Qadri
Senior Scientist and Head, Immunology Laboratory, ICDDR,B

Comments of some Fogarty Scholars on their work and experiences gathered while at ICDDR,B highlight the importance of this collaboration:



I learned so much in my time here both scientifically and culturally. Everyone at ICDDR,B and in Bangladesh has been so welcoming and kind. I have made many friends and collaborations that will last forever. Hopefully, I can return someday in the future.

Alison Kuchta



After an intensive orientation in Bethesda, Alison Kuchta and I began our research at ICDDR,B on immunological responses in cholera patients under the mentorship of Professor Stephen B Calderwood and Dr Firdausi Qadri. We were able to contribute to the research on T cell studies and to determine novel methods for determination of cytokine responses in cholera patients. As a Bangladeshi Scholar, this experience was truly fruitful and helped me not only in improving my scientific ability and thinking-capacity but was also useful in making me more articulate and expressive—an attribute needed in my career. This programme has helped me think critically and independently but also collaboratively.

Taufiqur Rahman



At ICDDR,B, I used flow cytometry to examine T cell responses in the blood of patients with acute cholera. Occasionally, I also took part in clinical activities, such as medical rounds and triage...I had the unique experience of conducting laboratory research in a setting where I could maintain contact with the patients that the research is designed to eventually affect. Dr Qadri's laboratory is active in several areas of cutting-edge research, and I learned immensely from her leadership and mentorship...I have observed the deep commitment of ICDDR,B staff in both laboratory work and treating patients...The Fogarty Program allowed me a life-changing opportunity and provided me with several formative career development opportunities. I learned a lot from my friendships with other Fogarty scholars who have worked throughout the world in different areas of research. Living in Bangladesh was wonderful! I enjoyed seeing the beautiful countryside and learning about the rich history of Dhaka. I was fortunate to make some lifelong friends there.

Ana Weil

Site for non-communicable diseases

Currently, the Principal Investigator of the Fogarty Program at ICDDR,B site for non-communicable disease is Professor Alejandro Cravioto, the Executive Director himself. He is also the mentor of the Fogarty Scholars in this discipline, with Dr Laura Reichenbach as an additional mentor.

This site at ICDDR,B had its first cohort of scientists on non-communicable diseases only in 2009-2010, with Evelyn Rebecca Ford from the USA and Dr Fauzia Akhter Huda as her local counterpart. After orientation for two weeks at the Bethesda campus of the NIH, they were placed at ICDDR,B for 10 months beginning August 2009. Their research interests are: maternal health, identifying mechanisms to reduce maternal mortality and



Being situated in Bangladesh, ICDDR,B enjoys a unique opportunity for understanding the diseases and health challenges facing developing countries worldwide and, in turn, it provides facilities for research and training to Bangladeshi and other nationals in collaboration with national and international institutions. The Fogarty International Clinical Research Scholars Program is an example of important collaboration that offers opportunity for mentored intense clinical research training at the top-ranking NIH-funded research centres like ICDDR,B. Benefits accrue to both scholars and the organizations.

Dr Aftab Uddin

Senior Manager, Technical Training Unit, ICDDR,B

Evelyn and Fauzia as a 2009-2010 pair comment on their work, thus:



General of Health Services in Bangladesh to measure the impact of post-abortion contraceptive. Our recommendations were highly appreciated by the Ministry of Health and Family Welfare. Experience gained from this programme would be very helpful in enhancing my knowledge and skills to undertake more research on the determinants of maternal health.

Evelyn Rebecca Ford

It's good to combine careers...use my clinical practice and apply to population-based or community-based research, to translational ends. I'm passionate about these issues...they are of enormous complexity and will require a lot of collective creativity to address effectively, which brought me to ICDDR,B...In working with scientists, both internally and externally, there is opportunity to interact with policy-makers, personnel of the Government of Bangladesh, and donors

Fogarty International Clinical Research Scholars Program (2009-2010) provided me the opportunity to promote and exchange views on global health-related research and facilitated relationships with different collaborators for future funding opportunities. My Fogarty twin Ms Evelyn Ford worked with me in one of our existing projects "Abortion and MR monitoring and evaluation." We really enjoyed working together. We proposed to introduce a new indicator in the national MIS format of the Directorate

Fauzia Akhter Huda

morbidity, including risk from unsafe abortion, and more generally, on the underlying social determinants of health. The Fogarty-sponsored research especially focused on reducing maternal morbidity relating to abortion and spanned over two research projects titled "Strengthening health system capacity to monitor and evaluate programmes targeted at reducing abortion-related maternal mortality" and "Strengthening menstrual regulation management information system (MR-MIS) in Bangladesh."

In addition to Professor Cravioto, Dr Laura Reichenbach also mentored this pair because of her keen interest in translational research, maternal and reproductive health, and in most difficult and in-navigable issues. Laura, however, explained her role, thus: "I was a mentor to Evelyn...I honestly don't think I had a formal supervisory role for Fauzia but we met occasionally to discuss her work."

The next pair of Scholars who will be working at ICDDR,B in the Fogarty site for non-communicable diseases during 2010-2011 has also been selected. They are: John Daniel Parr from the USA and Dr Masuma Akhter Khanam of ICDDR,B. John is currently finishing his third year at the Medical College of Wisconsin in Milwaukee, and Dr Masuma is a Research Investigator in the Chronic Disease Unit of the Centre.

The FICRS-F Program intended for a comparatively senior group of scientists at the post-graduate and post-doctoral level is also ongoing under the administrative responsibility of the Massachusetts General Hospital with NIH funding.

In addition to these scholars, several ICDDR,B scientists have received training since 2001 on vaccine development under an exchange programme of Massachusetts General Hospital, Harvard Medical School, and ICDDR,B with NIH funding. They include: Muhammad Asaduzzaman, Debasish Saha, Mohammed Ashfaqul Alam, Kazi Mizanur Rahman, Muntasir Rahman, Dipak Mitra, Alaulah Sheikh, Abdullah Al-Tarique, and M Saruar Bhuiyan.



I have worked at MGH/Harvard in Boston for 12 months and in a collaborative effort with Dr James E Graham at the University of Louisville-Kentucky for 3 months. My research, guided by Dr Edward T Ryan, Associate Professor, Harvard Medical School and Dr Firdausi Qadri, ICDDR,B, focused on the host-pathogen interaction of *Salmonella* Typhi and *S. Paratyphi*. I found the programme extremely helpful because this gave me an opportunity to learn some novel techniques which enriched my scientific skills. Later, I transferred all the new technologies to junior researchers and scientists at ICDDR,B. My fellowship helped me improve my scientific ability and made me more articulate and efficient to work independently.

Alaulah Sheikh

The GIDTRP is an additional Fogarty programme ongoing from 2006 where a fellow from Bangladesh goes to the Massachusetts General Hospital for a one-year period.

Prior to this (as detailed in the quote from Professor Calderwood), ICDDR,B had been with the Fogarty Ellison Program and the ABC (Action in Building Capacity) Program where Bangladeshi fellows have gone to the USA for formal degrees or training in the labs at the Massachusetts General Hospital/Harvard.

We at ICDDR,B hope in the days to come the existing collaborations with the Fogarty International Center vis-a-vis the National Institutes of Health will further be strengthened, and ICDDR,B will be exploring more opportunities to work together.



WHO-Global Outbreak Alert and Response Network

The Global Outbreak Alert and Response Network (GOARN) is a technical collaboration of existing institutions and networks that pool human and technical resources for the rapid identification and confirmation of, and response to, disease outbreaks of international importance. The GOARN provides an operational framework to link expertise and skills to keep the international community constantly alert to the threat of outbreaks and ready to respond.

OBJECTIVES

The GOARN contributes towards global health security by:

- combating the international spread of disease outbreaks
- ensuring that appropriate technical assistance reaches affected states rapidly
- contributing to long-term preparedness for epidemic and capacity-building.

The initial meeting of partners in Geneva in April 2000 brought together representatives of technical institutions, organizations, and networks in global epidemic surveillance and response to discuss global outbreaks. Participants identified the need for a global network, building on new and existing partnerships, to deal with the global threats of epidemic-prone and emerging diseases. A Steering Committee of network partners guides the development of the network.

WHO coordinates international outbreak response, using resources from the network. It also provides a secretarial service for the network, e.g. employment of project manager and support for the Steering Committee and Structures, as part of the Alert and Response Operations. In addition, protocols for network structure, operations, and communications have been developed to improve coordination among partners.

Guiding Principles for International Outbreak Alert and Response

Since April 2000, the GOARN has been bringing agreed standards to international epidemic response through the development of Guiding Principles for International Outbreak Alert and Response and operational protocols to standardize epidemiological, clinical and laboratory management, research, communications, logistics support, security, evacuation, and communications systems.

Partners

GOARN focuses on technical and operational resources from scientific institutions in member states, medical and surveillance initiatives, regional technical networks, networks of laboratories, United Nations organizations, e.g. UNICEF, UNHCR, the Red Cross (International Committee of the Red Cross, International Federation of Red Cross and Red Crescent Societies, and national societies) and international humanitarian organizations, e.g. ICDDR,B, Médecins sans Frontières, International Rescue Committee, Merlin and Epicentre). Technical institutions, networks, and organizations with the capacity to contribute to international outbreak alert and response are welcome to participate in the GOARN.

ICDDR,B and GOARN

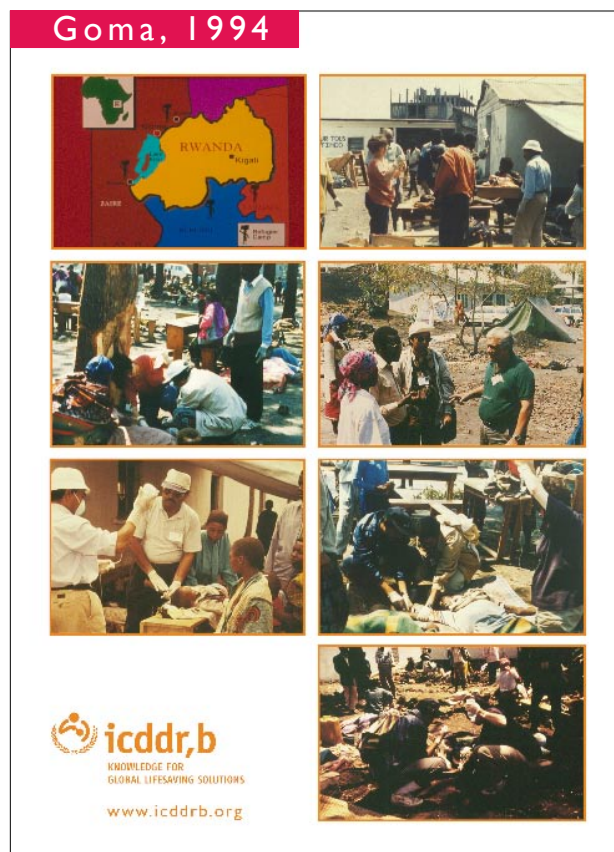
ICDDR,B is one of the founding technical partners of the GOARN. Before inception of the GOARN 10 years ago, ICDDR,B had an already-established track-record in several international outbreak responses in Ecuador, Peru, Cambodia, Mozambique, Yemen, and the major cholera outbreak among Rwandans in the refugee camps in Goma, Zaire (presently Democratic Republic of Congo) in 1994. The ICDDR,B's epidemic response team assisted in reducing mortality rate from as high as 48.7% to below 1%. ICDDR,B is now an active participant in the GOARN. In 2002, at the request of the GOARN, ICDDR,B sent a team of scientists to Zanzibar, Africa, to investigate an outbreak of cholera.

In August 2008, a cholera outbreak swept across Zimbabwe spreading to Botswana, Mozambique, South Africa, and Zambia. By the end of 2008, approximately 98,000 cases were reported with more than 4,000 deaths, making it the deadliest African cholera outbreak in the past 15 years. The Zimbabwean Government declared the outbreak a national emergency and requested for international aid.

Following a request from the GOARN, ICDDR,B sent a team of three clinicians, one laboratory scientist, and two medical epidemiologists who were deployed as part of the GOARN's support to the Ministry of Health (Zimbabwe), WHO, other UN agencies, and NGOs in the outbreak response. ICDDR,B worked in parallel teams at Bulawayo and Chinoyi.

The Director General of WHO Dr Margaret Chan, in a note of thanks to the Government, praised Bangladesh for its prompt action in sending cholera experts to tackle the epidemic in Zimbabwe.

International footprints of ICDDR,B in response to cholera epidemics



In 2009, experts from ICDDR,B were deployed for the cholera responses in Papua New Guinea. They also offered technical support for response to leptospirosis in the Philippines.

In addition to participating actively in international outbreak response missions, ICDDR,B has been providing members of the

faculty for the GOARN's training courses on outbreak response and those conducted by the GOARN partners, such as the Association of Medical Doctors of Asia.

ICDDR,B is further involved in the development of a GOARN's train-the-trainers course, supporting capacity-building for both preparedness and response and ensuring the further dissemination of expertise gained and lifesaving solutions explored over the past 50 years.

During March 2010, Dr John Watson and Dr Stephen Martin from the Disease Control in Emergencies (DCE) team of the WHO in the Department of Global Alert and Response visited ICDDR,B to further cross-sectoral collaboration and enhance the goals of cholera-control activities. The WHO staff members were also involved with the cholera response in Zimbabwe, along with the ICDDR,B team.

ICDDR,B launched a comprehensive programme focusing on instruction in the Dhaka Hospital Surveillance System, familiarization of the cholera treatment wards and the treatment management techniques developed at ICDDR,B, and an overview of the numerous projects being undertaken, including those relating to cholera vaccine, enteric and environmental microbiology, and training. Visits to the field sites—Mohammadpur and Mirpur (in Dhaka), Mirzapur (in Tangail), Barisal, and Matlab—were also arranged.

Such cross-collaborations enable WHO to respond rapidly, using the lifesaving techniques developed by ICDDR,B, to the needs of its member states, WHO country and regional offices, and international partners addressing cholera outbreaks and to further disseminate the knowledge widely through educational courses.

Automatic Weather Station at Matlab with RIHN funding contributes to environmental studies in Bangladesh

To develop an insight on the effects of environmental changes on human life, Research Institute for Humanity and Nature (RIHN), a Japanese inter-university organization, installed an Automatic Weather Station (AWS) in 2008 at the Matlab Health Research Centre of ICDDR,B. Through a formal Memorandum of Understanding between ICDDR,B and RIHN, the AWS monitors various weather-related indicators.

As part of the RIHN's environmental research project 'Environmental changes and infectious diseases in tropical Asia', the AWS is intended to create a meteorological and hydrological database in Bangladesh to see how natural forces, such as wind, rain, temperature, and sunlight affect the epidemiology and endemicity of infectious and water-borne diseases and to monitor vector dynamism.

Glimpses at RIHN

Established in 2001 by the Government of Japan, RIHN attempts to uphold integrated cooperative research towards the solution of global environmental problems and to create an augmented field of environmental studies. The Institute provides funds for environmental campaigns and carries out multi-dimensional fixed-term research projects to comprehend the impacts of nature on humanity through its resourceful environment scientists who operate largely in the field of natural sciences. In simple words, RIHN seeks to understand human experiences in the midst of nature. The Institute has made a path of progression having attached endowed researchers from Japan and the rest of the world. With an objective of greater knowledge acquisition and making prospects for future developments, RIHN analyzes the key drivers of ecological, societal and demographic changes, including population increase, deforestation, urbanization, resettlement, changes in water-bodies and their management, lifestyle changes, disease primacy and the causal factors, and many other facts that encroach human interests.

The research projects of RIHN are designed through five research domains: circulation, diversity, resources, ecohistory, and ecosophy. Conceptually, the domains are complementary to one another but they have so far operated mostly as separate fields. To describe how their findings may achieve a higher level of integration—to form the field of 'global environmental studies' and achieve a qualitative improvement in human ability to address global environmental problems—the Institute looks forward to developing synergies between projects and domains.

Environmental changes and infectious diseases in tropical Asia

'Environmental changes and infectious diseases in tropical Asia' is one of the many ongoing research projects of RIHN. It examines the effects of social and environmental changes on the ecology of human diseases in tropical Asia. The health-related overview



of a human population is an aspect of the human ecosystem built up of both biophysical and human elements, and conservation of human ecosystem is, therefore, essential for the survival of human populations. The field of ecohealth considers human health and disease in relation to environmental conditions, which is crucial for understanding causes of diseases, nature of pathogens, and the possible disease-purging measures.

The project deploys several research groups, of which one study group in Laos examines patterns of liver fluke infection, a parasitic infection associated with the consumption of raw freshwater fish, and another group is developing an integrated ecological and medical approach to malaria control and elimination in Southeast Asia. Their work focuses on malaria in the border regions of Viet Nam and on a new kind of human malaria due to *Plasmodium knowlesi*. The China Study Group investigates how social and environmental change affects vulnerability to HIV. The Bangladesh Study Group is primarily dedicated to improving the knowledge-base of diseases, on which sensible ecohealth campaigns—especially those relating to flood and health—can be based. It aims at developing a meteorological, hydrological and health-related database in Bangladesh. In collaboration with ICDDR,B, the project intends to quantify the relationship between climate and disease, including the long-term effects of flood on morbidity and mortality and the effect of the Indian Ocean Dipole on the incidence of cholera in Matlab and Dhaka. It also envisions conducting a pilot study to improve national statistics on tropical diseases, such as filaria, leishmaniasis, and rabies. Data on the effects of the 2004 flood have already been collected in Matlab.

The weather station at Matlab is a crucial component of this project which records sunshine, wind speed, wind direction, rainfall, temperature, humidity, water level and tide speed to observe the climatic trend in this region. Some major parts of the multi-functional AWS are: data-logger, wind sensor, temperature and humidity sensor, radiation sensor, pressure sensor, rain gauge, and a hydrometer.

Establishment of an Automatic Weather Station at Matlab Health Research Centre is a very important addition to its research infrastructure which would continuously generate selected critical environmental and climate variables for conducting research in the field of environmental health and climate change and their impact on infectious disease dynamics, in particular, and on the society, in general. This is in line with the ICDDR,B's Strategic Plan 2020 wherein Environmental Health, Urbanization and Climate Change have been highlighted as one of the research themes.

Dr Md. Yunus, Senior Scientist, Public Health Sciences Division, ICDDR,B

The first AWS was installed over the Public Health Sciences Division (PHSD) building of ICDDR,B in Dhaka by another Japanese institution—Disaster Prevention Research Institute (DPRI) of the Kyoto University. Both RIHN and ICDDR,B can access the raw data produced by the two AWSs, and the final data are processed by RIHN which are provided to ICDDR,B within 90 days of collection. RIHN will be responsible for the maintenance, repair, or replacement of equipment of both the AWSs until March 2013 while ICDDR,B will have the responsibility of routine check-up to determine if the equipment is functioning properly. RIHN will retain ownership of the Matlab AWS up to March 2013, and then the ownership may be transferred to ICDDR,B upon a written request and RIHN's approval of such a request.

The data obtained by the AWS will help researchers reach diverse inferences concerning relationships between human life and ecology of pathogens and vectors responsible for human disease. ICDDR,B scientists will be able to develop a cholera prediction model, understand morbidity- and mortality-related outcomes and, in the long run, deduce the effects of climate change through this surveillance system. In this era when climate change and environmental alterations pose a great challenge to the human civilization, findings from the RIHN-ICDDR,B collaborative research work will potentially contribute to the betterment of long-term health of the global population.

Library Committee of the Bangladesh Parliament at ICDDR,B



Representatives of the Library Committee of the Bangladesh Parliament and concerned officials of the Parliament Library and Parliament Secretariat visited the ICDDR,B's Library on 23 May 2010. The 10-member team included four Members of Parliament (MPs) led by Hon'ble Deputy Speaker and Chairman, Library Committee Mr Shawkat Ali. The distinguished MPs were: Mr Kazi Keramat Ali, Mr Md. Ishaque Hossain Talukder, and Mr Golam Faruk Khandakar Prince.

Dr Alejandro Cravioto, Executive Director of ICDDR,B, welcomed the Committee and briefed them about ICDDR,B and its research and service activities. This was followed by a PowerPoint presentation by Dr Md Nazim Uddin, Senior Manager, Library and Information Services Unit on the services provided by the Library. The Team toured the Library where they were given a practical demonstration on accessing some of the library's online facilities and services, such as Library Automation, Online Public Access Catalogue (OPAC), Institutional Repository (IR), online databases, e.g. HINARI and similar sites. The members were impressed with the state-of-the-art facilities and services of the Library. The Deputy Speaker expressed his keen interest in collaborating with ICDDR,B to enhance the capacity of the staff of the Parliament Library. The Team also toured the hospital.

The purpose of the visit was to gather and share knowledge to develop and enrich the Bangladesh Parliament Library established in 1972. In August 2009, the United Nations Development Programme (UNDP) in Dhaka engaged a 3-member library and information management expert team (Library Mission), headed by Mr M Shamsul Islam Khan, former Head, Dissemination and Information Services Centre (DISC) and presently Head, Publications Unit, Executive Director's Division, ICDDR,B and former President of the Library Association of Bangladesh. The Mission conducted a 10-day study to assess the present situation of the Parliament Library; the team members made recommendations on the overall needs of their library for a user-friendly online system, including an efficient database, information services to MPs, and preservation of records and documents. The study was conducted under the UNDP-Bangladesh Parliament Programme. The visit of the Parliamentary Committee to ICDDR,B was a follow-up to the recommendations of their Library Mission.

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