Annual Report 2023-2024

Environment and Population Research

ANNUAL REPORT
2023-2024

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Message from the Executive President

Welcome to our 2023-2024 Annual Report of Environment and Population Research Centre (EPRC).

In the pleasant moment of publishing annual report 2023-2024 I deeply mourn for the founding Executive President Dr. Bilqis Amin Hoque who left us on 1st of August 2023. She served this position until her death and brought EPRC to its highest peak of fame. I commemorate all of her good deeds in painful heart. May Almighty grant Jannatul Ferdaous for the departed soul. Her memory, ideology and spirit will be with us to guide in the future even in her absence.

Since its foundation in 1998 EPRC has gained immense competence and became acquainted in national and international arena. I am grateful to everyone who contributed and dedicated themselves to this endeavor. Despite continuity of COVID-19 Pandemic, we had carried out multi-disciplinary various researches covered by eight projects in environment, water, sanitation, hygiene, health, agriculture, food security, education, disaster risks reduction, climate change adaptation and mitigation, renewable energy, occupational safety and health, and livelihood. We have applied engineering, technological, technical, policy, gender, monitoring, social science, education, governance and/or other approach to carry out the research in rural, urban, slum, and disaster areas/conditions.

We have successfully completed six projects by the year-end while remaining two are underway. Reaching approximately about 1,153,763 people through capacity building, awareness raising, training, education, and access to improved technology is indeed a great success for the organization.

We have observed that the women members of local level government institution, the Union Parishad can lead the rural sanitation program and development of indicators for water & sanitation towards sustainable development goal (SDG), rural & urban safe drinking water system, community-based pipe water supply, and integrated renewable energy & pipe water supply in arsenic affected areas. They can also lead the development of menstrual hygiene management system in schools & communities, building non-communicable disease awareness among rural & urban poor, occupational health & safety, women & children-based disaster risks reduction, integrated organic agriculture & environmental health, and other areas of research. EPRC has initiated an action research to develop mobile App based drinking water quality monitoring system in the urban areas.

Since 2000, EPRC has been hosting the secretariat and playing the global chair of GARNET-SA. GARNET-SA promotes capacity building through demand-based knowledge exchange, collaborative research and student fellowship in WASH, environment, and agriculture among practitioners and students. Currently GARNET-SA, a voluntary network, is linked to about 560 members' organizations. Two institutions for offering short courses and diploma have been initiated; while the mobile water and agricultural & environmental laboratory, and the well-developed library strengthened.

Our sincere gratitude and thanks to the government of the People's Republic of Bangladesh, our donor agencies, partners, collaborators, members of the Executive Committee, advisors, school teachers, community people, religious leaders, and all the staffs of EPRC who helped EPRC greatly in undertaking the activities with active co-operations and important suggestions.

The EPRC family looks forward to working with all in future.

Mozzammel Hoque

Prof. M. Mozzammel Hoque, Ph. D
Executive President, EPRC

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Profile of EPRC

About EPRC

The Environment and Population Research Centre (EPRC), founded in 1998, is a multidisciplinary, non-governmental institution dedicated to research, development, education, training, and networking. It was established by the nationally and internationally renowned researcher Dr. Bilqis Amin Hoque, a distinguished academic and development professional. She held prestigious positions with ICDDR, B and the World Bank. Until her passing, she served as an Adjunct Professor at Emory University, USA. Guided by its Vision and Mission, EPRC works in a variety of fields, including WASH (Water, Sanitation, and Hygiene), water resources, food security, agriculture, organic farming, renewable energy, satellite-based smart irrigation, wastewater management, environmental protection, disaster risk reduction, climate change adaptation and mitigation, education, indoor air quality, public health, occupational health and safety, infrastructure, and related social and policy issues at local, regional, and global levels. A key focus of EPRC's development initiatives is managing water resources and promoting human rights and gender equity, particularly for socially disadvantaged communities, with an emphasis on women.

EPRC has successfully carried out its mission by implementing strategic research, academic, and development activities aimed at achieving sustainable outcomes. It collaborates with government agencies, non-governmental organizations, and donor agencies in Bangladesh and internationally.

EPRC operates 27 field offices across Bangladesh, with its head office located in Dhaka. The organization also runs an environmental and basic food testing laboratory, an MIS & data center, a training center, an educational institution, and a makeshift health clinic for marginalized populations in Gazipur and Uttar Matlab, Chandpur. EPRC is structured into 13 cells/sections: Human Resources, Finance, Social Behavioral Change (SBC), Capacity Building, Advocacy, Training and Research, GIS & MIS, Fundraising and Public Relations, Gender, Monitoring & Evaluation, Internal Audit, Disaster Management, Administration, Logistics, and Procurement.

EPRC coordinates the Global Applied Research Network for Water, Sanitation, Hygiene, Environment, and Agriculture-South Asia (GARNET-SA), a network of over 600 member organizations. The network is guided by an advisory committee that includes members from Bangladesh and other regional countries. The GARNET-SA chapter in India is coordinated by the Indian Institute of Bio-Social Research and Development (IBRAD) in West Bengal, India, in collaboration with EPRC.

EPRC works closely with grassroots community-based organizations (CBOs), local government bodies, institutions, Water Management Groups (WMGs), and other stakeholders. It has pioneered capacity-building initiatives for vulnerable women, empowering them to start small

businesses in sectors such as agriculture, food processing, improved cooking stoves, nursery management, sanitation, safe drinking water supply, and other livelihood improvement/income-generating activities.

EPRC has extensive experience in social mobilization and capacity development through group formation, need-based training on crop production technology, tailoring, paramedical services, veterinary care, small-scale fruit cultivation, and other self-improvement groups (SIGs). The organization also develops a wide range of training materials, including IEC (Information, Education, and Communication) materials, BCC (Behavioral Change Communication) tools, posters, leaflets, flashcards, billboards, and audiovisual resources. In addition, EPRC organizes and hosts short training courses, workshops, and postgraduate research in collaboration with institutions and universities from Bangladesh, India, USA, Netherlands, Japan, Denmark, and other countries.

EPRC employs a permanent team of professionals with expertise in environmental issues, water resources, civil engineering, social sciences, economics, public health, business management, statistics, sociology, agriculture, renewable energy, disaster risk management, climate change, food security, drinking water, sanitation, hygiene, air quality, local government, and capacity building. When needed, qualified registered associate members and short-term professionals are brought in from various sources, including GARNET-SA member organizations, to support specific projects. Over the years, EPRC has been involved in more than 100 projects across Bangladesh and internationally, achieving a strong record of success. In summary, EPRC has considerable experience and a deep commitment to sustainable development in both normal and disaster/emergency conditions, working in rural and urban areas alike.

Vision:
To redress suffering of the community people, especially the poor through appropriate management of resource at local, regional and global levels.

Mission:
To undertake strategic research, training, technical service, laboratory analysis, information exchange, and networking for effective and sustainable achievements in targeted development programs irrespective to religion, cast and creed.

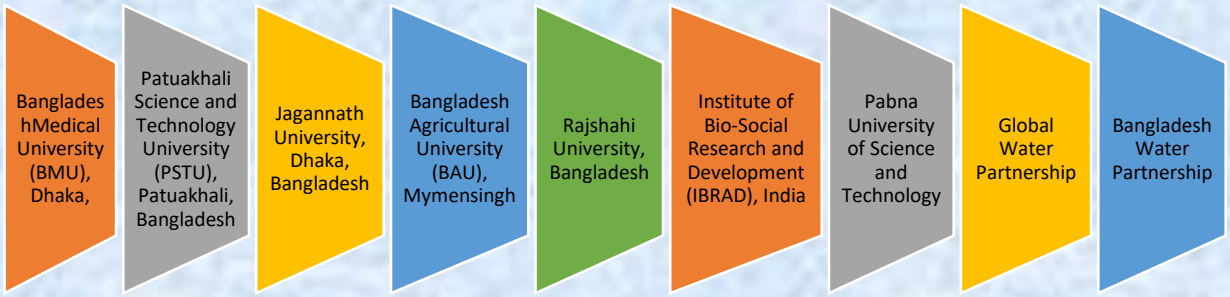
Objective
EPRC aims to contribute to sustainable development by advancing knowledge, technology, and the management of human & natural resources. It focuses on institutional capacity building, monitoring and evaluation, and addressing policy issues. Key strategic objectives include developing innovative technologies and techniques, enhancing the capacities of men, women, and children, and fostering collaboration with national & international organizations, including governments, NGOs, and academic institutions. EPRC works in rural, urban, and coastal regions both in normal and disaster conditions in Bangladesh as well as in the other countries.

Legal Affiliation

Year of Establishment	NGO Affairs Burea Reg. No.	Joint Stock Companies Reg. No.	ADB CMS Registration No.	USAID DUNS No.
1998	1674	S2746 (159)/2002	040782	731607292

TIN Number/ Cicrle 93	BIN/VAT Number	Trade License Number
145072908857	002067868-0101	TRAD/DNCC/084788/2022

Membership and MoU



Areas of Interest

- Drinking Water and Water Safety Plans
- Water Resources
- Wastewater & Waste
- Hygiene & Sanitation
- Air, Soil & other Environment
- Public Health
- Occupational Safety
- Agriculture & Forestry
- Food Security & Nutrition
- Education & Training
- Fisheries
- Disaster Risks Management
- Climate Change Adaptation and Mitigation
- Energy
- Infrastructure

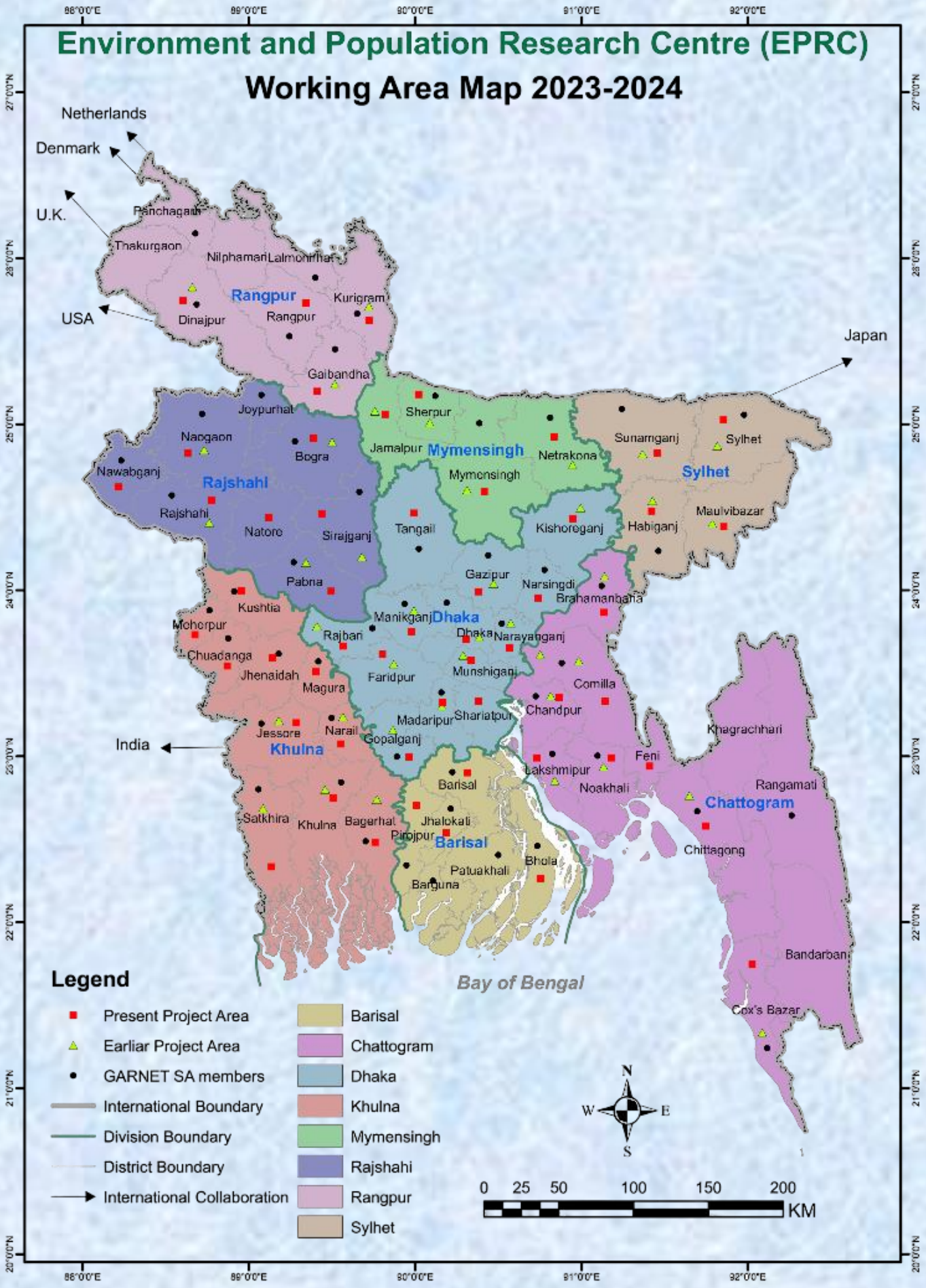
Special Focus

- Graduate and Post graduate Research and Educational Collaboration
- Technology and Technique Development
- Women and Children Capacity Building and Development
- Small NGOs Capacity Building
- Collaboration with GO, NGO, INGO & Academic Institutions
- Analysis of Environmental Samples at Laboratory & Field Level
- Practical Use of GIS and Remote Sensing
- Realization of SDG and other National and International Commitments
- Networking

Addressing SDG

Working Areas

As of June 2024


Environment and Population Research Centre (EPRC)
Working Area Map 2023-2024
Netherlands
Denmark
U.K.
USA
Japan
India
Panchagarh
Thakurgaon
Nilphamari
Lalmonirhat
Rangpur
Kurigram
Dinajpur
Rangpur
Gaibandha
Joypurhat
Sherpur
Jamalpur
Mymensingh
Netrakona
Sunamganj
Sylhet
Sylhet
Naogaon
Bogra
Nawabganj
Rajshahi
Rajshahi
Natore
Sirajganj
Tangail
Kishoreganj
Habiganj
Maulvibazar
Pabna
Gazipur
Narsingdi
Brahamanbaria
Kushtia
Manikganj
Dhaka
Dhaka
Narayanganj
Meherpur
Rajbari
Chuadanga
Jhenaidah
Magura
Faridpur
Munshiganj
Comilla
Chandpur
Madaripur
Shariatpur
Jessore
Narail
Gopalganj
Khulna
Khagrachhari
Feni
Lakshmipur
Noakhali
Barisal
Rangamati
Chattogram
Satkhira
Khulna
Bagerhat
Jhalokati
Pirojpur
Barisal
Chittagong
Patuakhali
Bhola
Barguna
Bandarban
Cox's Bazar
Bay of Bengal
Legend
Present Project Area
Earliar Project Area
GARNET SA members
International Boundary
Division Boundary
District Boundary
International Collaboration
Barisal
Chattogram
Dhaka
Khulna
Mymensingh
Rajshahi
Rangpur
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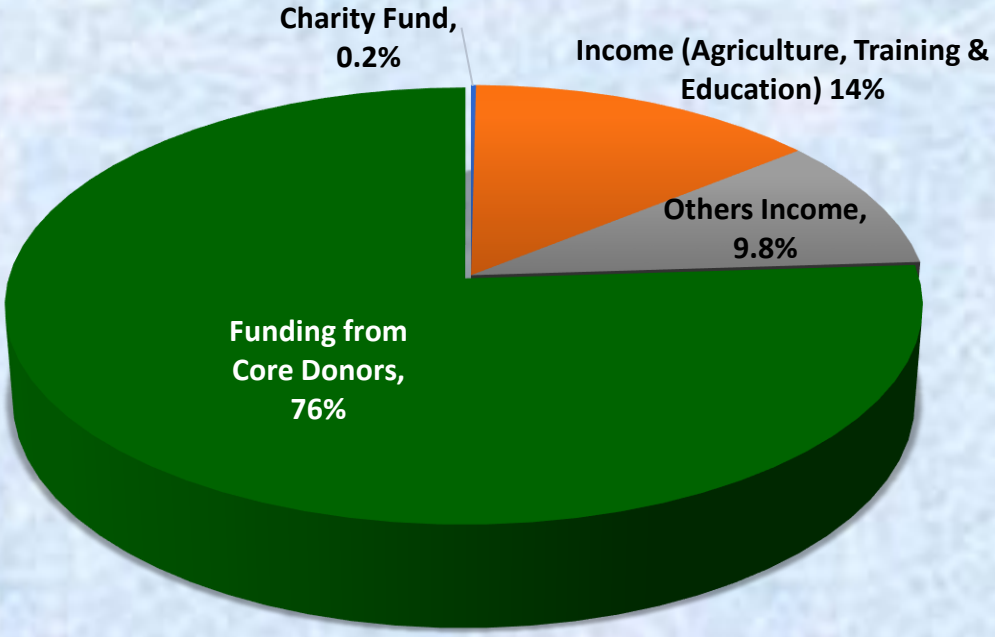
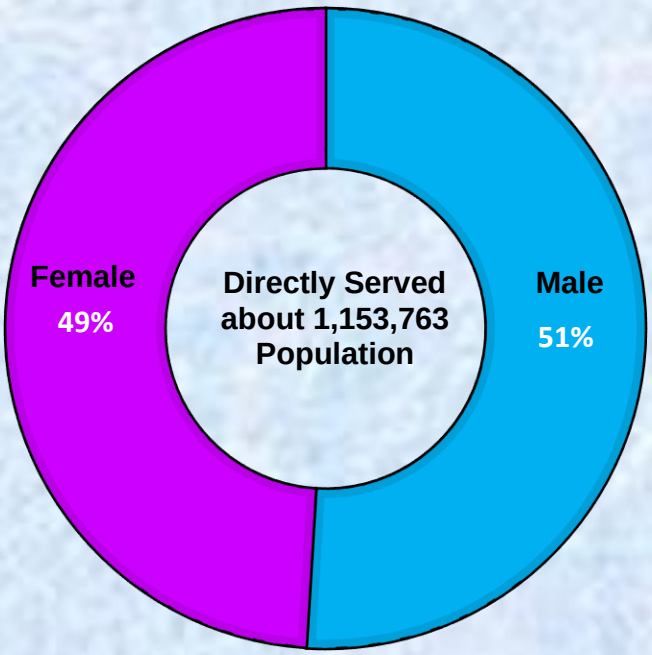
KM

EPRC Financial Achievements and Population Served





1. COVID-19 Pandemic Prevention and Assistance

OVERVIEW

The COVID-19 pandemic highlighted the critical role of safe water, sanitation, and hygiene (WASH) in controlling the spread of infectious diseases. In Bangladesh, EPRC recognized that effective pandemic prevention required more than promoting handwashing alone—it also demanded addressing underlying water quality challenges that can undermine hygiene practices.

Drawing on lessons from the COVID-19 period, EPRC integrated low-cost, locally appropriate hand hygiene solutions into its program design while prioritizing improvements in safe water access. The organization emphasized that in settings with high risk of E. coli contamination; simply encouraging handwashing is insufficient without ensuring that water itself is safe. By combining water quality interventions with robust hygiene promotion, EPRC's approach aimed to reduce infection risks more effectively and build long-term community resilience against COVID-19 and other communicable diseases.

APPROACH

EPRC's approach to addressing the interaction between water quality, hand hygiene, and COVID-19 risk in Bangladesh was grounded in the lessons learned during the pandemic. Recognizing that effective hand hygiene promotion required more than just behavioral messaging, EPRC redesigned its hygiene promotion component to integrate low-cost, locally appropriate handwashing facilities accessible to poor and rural communities.

At the same time, EPRC acknowledged that unsafe water quality—especially E. coli contamination—undermines the health benefits of handwashing, as people using contaminated water risk spreading infection even while practicing recommended hygiene behaviors. The program therefore adopted a combined strategy, promoting safe water supply interventions alongside hand hygiene education, to reduce overall infection risk and improve resilience against COVID-19 and other communicable diseases.

ACHIEVEMENT

- **Hand Hygiene Infrastructure**: EPRC developed and renovated 52 handwashing stations across health centers and communities, including 4 permanent units, 15 basin upgrades, and 33 low-cost, locally adapted models using local materials like buckets and bamboo.
- **Water Quality Monitoring**: A total of 80 water samples were tested (44 via satellite, 36 in-situ) across seasonal rounds. Parameters such as arsenic, salinity, turbidity, E. coli and pH were analyzed to inform safe water access in coastal areas.
- **Training and Capacity Building**: 233 health workers and 537 community members were trained on COVID-19 prevention and hand hygiene. Courtyard sessions promoted hygiene behavior change at the household level.
- **Community-Level Engagement**: EPRC conducted KAP surveys with 583 stakeholders and led demonstrations of low-cost handwashing setups in homes and religious centers. Seasonal analysis helped identify barriers to consistent hygiene practices.
- **Academic Contribution**: Three Master's theses were completed with the University of Stirling, covering hand hygiene and COVID-19 links, water quality monitoring, and flood-related health impacts in Bangladesh.

2. Water, Sanitation and Hygiene towards SDG

OVERVIEW

In 2024, Bangladesh ranked 107th out of 167 countries in the global Sustainable Development Goals (SDG) Index, with an SDG score of 64.35 out of 100 (9th edition of the Sustainable Development Report, UN Sustainable Development Solutions Network, June 17). While Bangladesh is ahead of India (109th), Pakistan (137th), and Afghanistan (162nd) in South Asia, it still lags behind Bhutan (61st), Maldives (67th), Sri Lanka (93rd), and Nepal (95th). This ranking underscore both the progress made and the persistent challenges in achieving SDG 6— "Clean Water and Sanitation for All." Despite major gains in expanding access to improved water and sanitation, millions in Bangladesh—especially those in arsenic-affected, saline-prone, and disaster-vulnerable regions—still lack safe, equitable, and climate-resilient WASH (Water, Sanitation, and Hygiene) services. These gaps pose significant risks to public health, economic development, and climate resilience.

In 2023-2024, EPRC's WASH initiatives targeted these critical challenges through a comprehensive, community-centered approach focused on the most vulnerable populations, with an emphasis on women, children, and the ultra-poor. Key strategies included arsenic mitigation in high-risk zones, installation and rehabilitation of safe water points, promotion of improved sanitation and hygiene practices, and capacity-building for local institutions and community-based organizations. We leveraged technological innovation—such as mobile applications for water quality monitoring and service reporting—and evidence-based planning to strengthen local ownership and accountability. Through participatory approaches, we facilitated the declaration of arsenic-safe and open defecation free (ODF) communities, improved hygiene behaviors, and enhanced operation and maintenance systems.

However, the sector continues to face systemic barriers: high contamination levels in water sources, limited investment in adaptive technologies, fragmented coordination, and capacity gaps at the local level. Addressing these challenges will require sustained partnerships, policy commitment, and investments in scalable, climate-adaptive solutions. As EPRC moves forward, we remain committed to supporting Bangladesh's journey toward SDG 6 by advancing equitable, safe, and resilient WASH systems—protecting public health, empowering communities, and fostering sustainable development for all.

APPROACH

EPRC's approach to safe drinking water supply in 2023-2024 was guided by the principles of equity, resilience, community ownership, and evidence-based planning. Recognizing the persistent threat of arsenic contamination and the growing impacts of climate change—such as salinity intrusion and water scarcity—the Centre prioritized the deployment of climate-resilient and locally appropriate technologies in hydro-geologically challenged regions. A major focus was placed on arsenic mitigation, with targeted interventions in unions and pourashavas where over 60% of tube-wells were found contaminated. To ensure that interventions reached those most in need, equity-based site selection criteria were adopted, emphasizing inclusion of ultra-poor, remote, and marginalized households.

In parallel, EPRC promoted the use of digital innovation to improve service delivery, transparency, and responsiveness. The TAPP Water App was developed and piloted as a user-friendly mobile platform for communities, local governments, and service providers to report water quality issues, request maintenance, facilitate bill payment, and access water safety education. This digital tool aimed to bridge service gaps in piped water systems and improve accountability.

Another key component of the approach was institutional and community capacity building. Thousands of Water Point Operation & Maintenance (O&M) Committees and Community-Based Organizations (CBOs) were formed and trained to manage local water supply systems. Extensive training and orientation sessions were conducted for DPHE staff, LGI representatives, and NGO partners to strengthen their role in planning, implementation, and sustainability of water safety measures.

Finally, EPRC ensured its interventions were rooted in multi-stakeholder collaboration and data-driven decision-making. Through partnerships with local governments, NGOs, research institutions, and private suppliers, the organization developed detailed GIS-based arsenic risk maps, conducted field monitoring using mobile tools, and integrated evidence into the design of mitigation plans. This holistic, decentralized, and participatory approach positioned EPRC's safe water supply work as both impactful and scalable in alignment with national goals and SDG 6.

ACHIEVEMENT

- **Arsenic-Safe Water Infrastructure:**
  - Installed or rehabilitated 7,274 arsenic-safe water points across vulnerable regions.
  - Rehabilitated 73 previously non-functional community water sources, restoring safe water access to over 6,000 individuals.
  - Submitted over 5,400 additional sites for future prioritization based on equity-focused assessments.
- **Adoption of Digital Tools:**
  - Successfully developed and field-tested the TAPP Water App in Betaga Union, Kurigram Pourashava, and Faridpur Pourashava.
  - Hundreds of service requests were logged and addressed during app trials.
  - Formal adoption by Betaga Union Parishad and endorsement by Faridpur Pourashava with recommendations for expansion.
- **Community Empowerment and Management:**
  - Formed and trained 3,353 Water Point Operation & Maintenance Committees to ensure local-level management.
  - Promoted local government ownership—Betaga Union published the app's services on its official website.
- **Capacity Building:**
  - Trained over 13,000 local stakeholders, including DPHE staff and LGI representatives, on safe water supply management and arsenic mitigation strategies.
  - Strengthened partnerships among local governments, private suppliers, NGOs, and research institutions for sustained service delivery.
- **Evidence-Based Arsenic Risk Reduction:**
  - Tested over 6.5 million drinking water sources nationwide under the Arsenic Risk Reduction Project (ARRP), identifying priority hotspots for mitigation.
  - Developed union-level GIS maps to support precise, targeted planning of safe water interventions.
  - Improved capacity of over 19,000 tube-well testers, mechanics, and local officials for arsenic screening and response.

2.2 PROMOTION OF SANITATION

APPROACH

EPRC's approach to sanitation promotion in 2023-2024 focused on community empowerment, and sustainable service delivery. Recognizing that poor and ultra-poor households often lacked access to safe sanitation, the program prioritized to target the most vulnerable communities. A central pillar of this approach was the adoption of Community-Led Total Sanitation (CLTS) models, which mobilize entire communities to eliminate open defecation through collective decision-making, local leadership, and mutual accountability.

To ensure long-term sustainability, EPRC emphasized building local institutional capacity by forming and training Community-Based Organizations (CBOs) and Water Point Operation & Maintenance (O&M) Committees. These groups were equipped to lead sanitation planning, manage facilities, and promote ODF commitments within their communities. The approach also included engaging local government institutions to support declarations of open defecation free (ODF) status and strengthen coordination for sustained monitoring and enforcement.

ACHIEVEMENT

- **Conversion of Unhygienic Latrines:** Over 32,000 unhygienic latrines were converted to hygienic latrines, reducing environmental contamination and disease risk in vulnerable areas.
- **New Sanitation Infrastructure:** Installed over 1,200 new improved latrines to expand access in underserved communities.
- **ODF Declarations:** Facilitated the declaration of 335 communities, 96 villages, and 10 unions as either arsenic-safe and ODF **or** ODF-only, contributing to Bangladesh's national target of eliminating open defecation.

- **Community Engagement:** Conducted targeted community mobilization using CLTS principles, supporting collective action and local ownership of sanitation improvements.
- **Institutional Strengthening:** Formed and trained thousands of CBOs and O&M Committees to manage local sanitation planning, operation, and maintenance effectively.

2.3 PROMOTION OF HAND HYGIENE

APPROACH

EPRC's approach to hand hygiene promotion in 2023-2024 emphasized behavior change communication, locally appropriate technologies, and capacity building to address persistent gaps in hygiene practices—especially in vulnerable, climate-affected, and arsenic-prone regions. A key principle of this approach was the recognition that access to running water is essential for effective handwashing, which is critical for protecting public health by preventing the spread of infectious diseases.

To support this, the program promoted low-cost, locally adapted handwashing facilities designed to ensure regular availability of running water at the household and community levels. Community engagement was central to this strategy, with extensive behavior change communication delivered through courtyard sessions, community events, and local demonstrations to encourage consistent handwashing at critical times.

The approach also focused on training local stakeholders, health workers, and community leaders to reinforce hygiene messages, demonstrate proper handwashing techniques with running water, and sustain local promotion activities. Additionally, EPRC integrated hand hygiene promotion into broader WASH initiatives, ensuring that arsenic mitigation, water safety planning, and sanitation interventions were all aligned to improve hygiene awareness and practice for comprehensive public health impact.

ACHIEVEMENT

- **Handwashing Facilities:** Supported over 34,000 households to establish handwashing stations using low-cost, locally appropriate technologies, improving daily access to handwashing with soap and water.
- **Behavior Change Communication:** Delivered over 32,000 courtyard sessions that included hand hygiene promotion along with broader WASH awareness, reaching over 510,000 people with participatory messaging.
- **Health Facility Improvements:** In climate-vulnerable coastal upazilas, demonstrated and renovated 52 handwashing facilities across healthcare settings, including permanent wash stations and low-cost adapted solutions in community clinics and households.
- **Training and Capacity Building:** Trained 233 health workers (doctors, nurses, paramedics) and over 500 community members and leaders to improve hand hygiene knowledge, promote proper handwashing behavior, and sustain local capacity for ongoing hygiene promotion.
- **Community Demonstrations:** Conducted household and religious center–based demonstrations using local materials to show practical, low-cost methods of installing and maintaining handwashing stations.

2.4 PROMOTION OF MENSTRUAL HYGIENE

APPROACH

The menstrual hygiene promotion component was strategically integrated within the broader Water, Sanitation, and Hygiene (WASH) interventions. Recognizing menstrual hygiene as a critical element of personal and public health, especially for adolescent girls and women in rural and underserved communities, EPRC adopted a community-led and inclusive approach. Menstrual hygiene topics were embedded within awareness-raising campaigns, school-based education, and national WASH-related observances to ensure normalization of the subject and to encourage open discussions.

To maximize outreach and acceptance, EPRC organized targeted events and sessions during national days such as Menstrual Hygiene Day**,** Global Handwashing Day**,** and National Sanitation Month, where menstrual hygiene was highlighted as a core theme. Schools, community-based organizations (CBOs), and local government institutions were used as key platforms for dissemination. EPRC also leveraged the existing community mobilization structure—such as courtyard sessions and CBO meetings—to conduct awareness sessions, especially focusing on adolescent girls, women, and their caregivers. Coordination with local education departments and Union Parishads ensured institutional support and broader participation. Communication was enhanced through context-appropriate Information, Education, and Communication (IEC) materials developed and used to educate and sensitize stakeholders at multiple levels.

ACHIEVEMENT

- **Celebration of Menstrual Hygiene Day (MHM Day):** Observed MHM Day 2024 at 20 venues, including 10 schools and 10 community-based organizations across multiple unions.
- **Integration with National WASH Campaigns:** Menstrual hygiene awareness was embedded in broader campaigns during Global Handwashing Day, National Sanitation Month, World Water Day, and World Toilet Day.
- **Extensive Awareness Events:** Conducted over 229 events with MHM components, reaching diverse groups across schools, communities, union, and upazila levels.
- **Community Engagement and Participation:** Reached thousands of adolescent girls, women, teachers, CBO members, and local leaders with menstrual hygiene information and education.

- **Promotion of Open Dialogue and Social Acceptance:** Encouraged open discussions on menstruation, helping to break taboos and reduce stigma, particularly in conservative rural communities.
- **Use of Context-Specific IEC Materials:** Developed and used locally appropriate Information, Education, and Communication (IEC) materials to deliver menstrual hygiene messages effectively.
- **Institutional Capacity Strengthening:** Built the capacity of schools and CBOs to serve as platforms for sustained menstrual hygiene promotion.
- **Support to National and Global Goals:** Contributed to national sanitation and health objectives, and supported SDG 6.2, focusing on hygiene needs of women and girls.

2.5 PROMOTION OF WATER SAFETY PLANNING

APPROACH

EPRC adopted a comprehensive Water Safety Planning (WSP) approach aligned with WHO and UNICEF guidelines to ensure safe drinking water from source to point-of-use, especially in arsenic-affected and climate-vulnerable regions. This included protecting water sources from contamination, selecting resilient technologies like DTW, STW, RWHS, and AISRU, and applying appropriate treatment and disinfection methods. Safe storage and hygienic handling were promoted at the household level using jerry cans and water purifying tablets. Community pipeline systems were established and monitored to ensure distribution safety, while over 3,600 local caretakers and user groups were trained on operation, maintenance, and risk prevention. WSP Corners were institutionalized in Union Parishads with water quality test kits and visual IEC tools to strengthen local surveillance, feedback, and continuous risk-based water management.

ACHIEVEMENT

- **WSP-Compliant Water Points:** Installed or repaired 3,812 arsenic-safe sources across seven high-risk upazilas using WHO-UNICEF WSP principles.
- **Water Quality Surveillance**: Routine testing of arsenic, salinity, pH, iron, turbidity, and other parameters through WSP corners and field kits.
- **Caregiver and Community Training**: Trained 3,686 caretakers and 94,897 users in preventive maintenance, safe water handling, and arsenic awareness.
- **Community-Based O&M**: Distributed maintenance toolkits to 840 community-based organizations (CBOs) to ensure decentralized management.
- **Institutionalized WSP**: WSP Corners established in four Union Parishads to institutionalize ongoing surveillance, community monitoring, and technical support.
- **Certified Safe Zones**: Facilitated declaration of 101 communities, 19 villages, and 3 Unions as arsenic-safe and open defecation free (ODF) zones.
- **GIS-Based Planning**: Developed union-level arsenic-risk maps using large-scale water point screening to guide precise WSP planning in climate-sensitive areas.

3. Sustainable Agriculture, Food and Environment

OVERVIEW

EPRC's mission recognizes that sustainable development cannot be achieved without protecting the environment, ensuring food safety, and building climate resilience. In 2024, our work advanced integrated solutions at the intersection of safe water supply, environmental health, and community empowerment—laying foundations for more sustainable agriculture, safer food systems, and healthier environments across Bangladesh. Groundwater contamination by arsenic, salinity, and other pollutants continues to threaten not only drinking water but also irrigation safety and food security in many regions. EPRC addressed these challenges through targeted arsenic mitigation, supporting safe water access for over 740,000 people in vulnerable communities and promoting equity-based site selection to prioritize marginalized groups. By investing in climate-resilient and locally adapted water technologies, we helped reduce environmental contamination risks while strengthening community capacity to manage resources sustainably.

Our commitment to environmental health also extended to urban air quality monitoring in Dhaka and Gazipur, where EPRC operated a network of real-time PM2.5 sensors to generate vital data for policy, research, and public awareness. In addition, we piloted innovative behavioral interventions ("nudges") to reduce single-use plastic bag consumption in Dhaka's markets—contributing to broader efforts to tackle plastic pollution in rivers and oceans. Throughout these initiatives, EPRC championed participatory planning, capacity building, and technology transfer to empower local institutions and communities. By fostering partnerships with government agencies, local governments, NGOs, and academic institutions, we advanced an integrated approach that connects safe drinking water, sanitation, hygiene, environmental protection, and food security. As Bangladesh works toward achieving the Sustainable Development Goals, including SDG 2 (Zero Hunger), SDG 6 (Clean Water and Sanitation), SDG 11 (Sustainable Cities and Communities), SDG 12 (Responsible Consumption and Production), and SDG 13 (Climate Action), EPRC remains committed to delivering evidence-based, community-owned, and environmentally sound solutions for a healthier, more resilient future.

3.1 SUSTAINABLE AGRICULTURE AND FOOD SECURITY

APPROACH

EPRC's approach to sustainable agriculture and food security in 2024 was primarily anchored in its commitment to ensuring safe, reliable, and climate-resilient water supply for vulnerable communities. Recognizing that arsenic contamination and salinity intrusion threaten not just drinking water but also irrigation safety and crop productivity, EPRC prioritized arsenic mitigation and equity-based site selection in rural, agriculture-dependent regions.

By installing and rehabilitating arsenic-safe water points in high-risk zones and promoting climate-resilient, locally adapted water supply technologies, the approach sought to reduce environmental contamination risks while supporting safe water access essential for both household consumption and small-scale irrigation. EPRC also emphasized community empowerment and institutional capacity building, ensuring that local governments and community-based organizations could plan, manage, and sustain these water resources to enhance food security outcomes.

ACHIEVEMENT

- **Arsenic-Safe Water Infrastructure:** Installed or rehabilitated 7,274 arsenic-safe water points across vulnerable rural regions, improving safe water availability critical for both drinking and agricultural use.
- **Equity-Based Targeting:** Focused on the most affected, underserved areas to ensure that poor and ultra-poor farming communities received priority in safe water planning and infrastructure investment.
- **Capacity Building:** Formed and trained thousands of Community-Based Organizations (CBOs) and Water Point O&M Committees to manage local water resources sustainably, reinforcing local ownership and resilience.
- **Integrated Planning:** Used evidence-based GIS mapping and risk assessment to target arsenic hotspots, supporting more informed and effective local planning for safe water in agriculture-dependent regions.
- **Climate-Resilient Technologies:** Promoted adaptive, low-cost water supply solutions designed for saline-prone and arsenic-affected areas, supporting agricultural livelihoods threatened by climate change and water quality degradation.

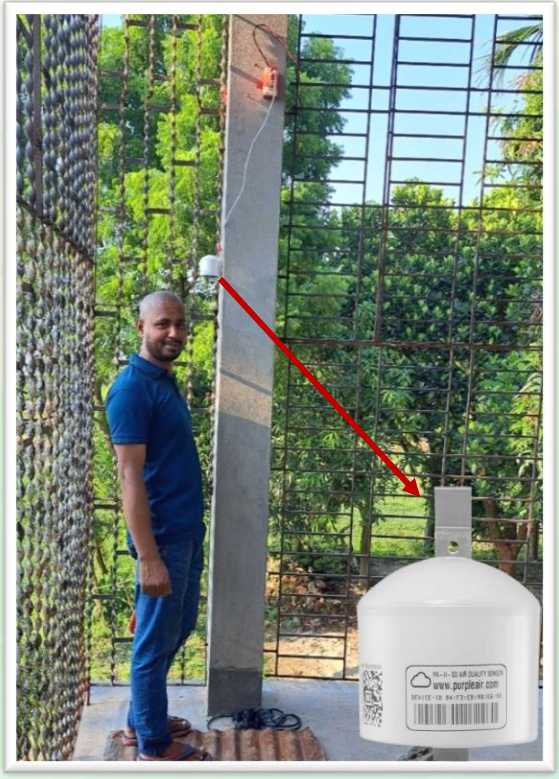
APPROACH

EPRC's approach to environmental health in 2024 was built on evidence generation, community engagement, and policy-relevant innovation to address Bangladesh's urgent urban environmental challenges. Recognizing that air pollution and plastic waste are major threats to public health, EPRC invested in low-cost, high-resolution air quality monitoring to generate real-time, location-specific data on PM2.5 concentrations in Dhaka and its outskirts.

By collaborating with Emory University, EPRC aimed to strengthen national capacity for evidence-based policy development, urban planning, and public health risk reduction. At the same time, EPRC piloted behavioral "nudge" interventions in Dhaka markets collaborating with University of Rhods Island to reduce single-use plastic bag consumption. This approach focused on low-cost, culturally adapted strategies to shift consumer norms and vendor practices—complementing regulatory measures with community-level behavior change to tackle plastic pollution in rivers, drainage systems, and urban environments.

ACHIEVEMENT

- **Air Quality Monitoring Network:** Installed and operated five PurpleAir PA-II-SD air quality sensors in strategic urban and peri-urban locations in Dhaka and Gazipur.
- **Real-Time Data Generation:** Produced continuous, high-resolution PM2.5 data shared publicly via the PurpleAir platform to support transparency, research, and community awareness.
- **Policy and Planning Support:** Strengthened the evidence base for urban planning, public health advisories, and future interventions to reduce air pollution exposure.
- **Research Collaboration:** Facilitated joint research and capacity building between Bangladeshi and U.S. academic institutions to advance environmental health knowledge.
- **Plastic Reduction Interventions:** Conducted two randomized field experiments in Dhaka markets to test low-cost behavioral nudges aimed at reducing plastic bag use.
- **Behavioral Change Strategies:** Piloted choice-based nudges (active choice and environmental messaging) and reminder systems with reusable bag distribution to shift consumer behavior.
- **Community and Vendor Engagement:** Engaged over 55 vendors and 520+ consumers, collecting over 800 survey and observational records to evaluate intervention effectiveness.
- **Evidence for Policy:** Generated empirical data to inform scalable plastic waste reduction strategies and future regulatory or voluntary approaches.



4. Disaster Risk Reduction and Climate Change Adaptation and Mitigation

OVERVIEW

Bangladesh stands among the world's most climate-vulnerable countries, facing increasing threats from cyclones, floods, salinity intrusion, groundwater contamination, and extreme weather events that endanger lives, livelihoods, and ecosystems. At EPRC, we recognize that disaster risk reduction (DRR) and climate change adaptation and mitigation are not standalone goals but must be integrated into all aspects of development planning, service delivery, and community engagement. In 2024, EPRC advanced a holistic approach by prioritizing equity-based, locally adapted, and community-owned solutions focused on the most vulnerable and disaster-prone regions. We placed special emphasis on arsenic- and salinity-affected coastal and riverine areas, where safe drinking water access is critically threatened by climate change. Through targeted arsenic mitigation, climate-resilient water supply technologies, and capacity-building for local institutions and community-based organizations, we worked to enhance community resilience to both chronic and acute water-related hazards.

EPRC also contributed to environmental mitigation efforts by addressing urban air quality and plastic pollution, two drivers of environmental degradation that exacerbate health risks and reduce climate resilience in rapidly growing cities. By operating a network of real-time air quality monitors and piloting behavioral "nudges" to reduce single-use plastic bag consumption in Dhaka's markets, we supported evidence-based policymaking, public awareness, and sustainable consumption practices. Through these initiatives, EPRC strengthened the capacity of local governments, CBOs, and households to plan for, respond to, and reduce risks associated with climate change and disasters. Our commitment remains to deliver inclusive, data-driven, and scalable solutions that protect public health, safeguard natural resources, and build a more resilient and sustainable future for all Bangladeshis.

4.1 ARSENIC MITIGATION IN CLIMATE-VULNERABLE REGIONS

APPROACH

EPRC's arsenic mitigation strategy in 2023-2024 placed specific emphasis on regions that are both arsenic-affected and climate-vulnerable**,** such as saline-prone and hydro-geologically unstable areas in coastal and low-lying parts of Bangladesh. Recognizing the compounded risks of arsenic contamination and climate stressors—such as salinity intrusion, flooding, and drought—EPRC designed a context-sensitive approach that prioritized high-risk unions and upazilas where groundwater contamination aligns with heightened climate vulnerability.

The project adopted an equity-based site selection process, ensuring that poor and ultra-poor communities exposed to both arsenic and environmental hazards received priority intervention. EPRC promoted climate-resilient water supply technologies—those capable of withstanding saline intrusion and seasonal variability—tailored to local conditions rather than one-size-fits-all solutions. At the institutional level, EPRC worked to enhance the arsenic risk management capacity of local stakeholders by training DPHE personnel, local government representatives, and NGOs on water safety planning, arsenic screening, and risk mapping.

In addition, EPRC engaged in GIS-based arsenic hotspot mapping using multi-year testing data, supporting informed decision-making in areas where deeper aquifer safety is increasingly uncertain. This targeted, data-driven approach ensured that arsenic mitigation was not only about supplying water but also about reducing long-term exposure risks in areas where climate change is intensifying groundwater stress and shifting contamination patterns.

ACHIEVEMENT

- **Expansion of Arsenic-Safe Water Points in Salinity- and Flood-Prone Regions:** Successfully installed or rehabilitated 7,274 arsenic-safe water points**,** a significant proportion of which were located in salinity-affected and flood-prone upazilas in Khulna, Satkhira, Jashore, Barishal, and Faridpur regions.
- **Risk-Based Planning for Future Arsenic-Safe Infrastructure:** Identified and submitted over 5,400 additional water points for future intervention using arsenic and vulnerability risk overlays**.**
- **Arsenic-Safe and ODF Declarations in Climate-Sensitive Rural Areas:** Supported the declaration of 335 communities, 96 villages, and 10 unions as arsenic-safe or arsenic-safe and open defecation free (ODF), with a focus on climate-sensitive rural zones.
- **Capacity Building for Climate-Adapted Arsenic Risk Management:** Built local institutional capacity through the training of over 13,000 stakeholders (including DPHE, LGIs, and NGOs) specifically on arsenic screening protocols, safe technology options, and water safety planning under environmental stress.
- **Comprehensive Screening and GIS Mapping for Climate-Risk Mitigation:** Utilized large-scale screening under the Arsenic Risk Reduction Project (ARRP), covering 7.5 million water sources**,** and generated union-level GIS maps to guide precise arsenic mitigation planning in climate-risk zones.
- **Community Engagement on Climate-Linked Arsenic Health Risks:** Promoted community awareness **on** arsenic-health risks linked to deteriorating aquifers and climate-sensitive water use behavior through 32,000+ courtyard sessions.

APPROACH

In May 2024, Cyclone Remal struck Bangladesh's coastal belt with damaging winds, storm surge, and heavy rainfall that forced mass evacuations and devastated communities in Khulna Satkhira and Pirojpur districts. Homes, cropland, drinking water sources, and sanitation facilities were severely damaged, creating an urgent humanitarian crisis for displaced and marginalized households.

EPRC adopted a rapid, coordinated, and needs-based emergency response approach to support cyclone-affected populations in these highly vulnerable coastal regions. The strategy prioritized equity in targeting—ensuring that ultra-poor, marginalized, and disaster-affected families received timely and appropriate assistance.

EPRC mobilized its own institutional funds and leveraged partnerships with government, local and international NGOs, development agencies, and community leaders to coordinate relief operations.

The approach emphasized culturally appropriate, centrally and locally procured relief items designed to meet immediate needs for food security, safe drinking water, and basic health protection. EPRC also emphasized community-level coordination, ensuring that local authorities and community-based organizations were engaged in planning, distribution, and beneficiary selection to maximize transparency and accountability.

ACHIEVEMENT

Under EPRC's leadership, a coordinated emergency response to Cyclone Remal 2024 delivered essential humanitarian assistance to thousands of cyclone-affected families across three severely impacted coastal upazilas: Paikgachha (Khulna District), Assasuni (Satkhira District), and Nazirpur (Pirojpur District).

- **Widespread Coverage and Equity-Based Targeting:**
  - Reached Paikgachha, Assasuni, and Nazirpur with relief support, prioritizing ultra-poor, marginalized, and highly affected households through local consultation and multi-stakeholder collaboration.
- **Water Supply and Quality Interventions**:
  - Installed and rehabilitated a range of water supply technologies including DTWs, STWs, Mini RO units, AIRPs, AISRUs, RWHS (new and repaired), community pipelines, and raised platforms for tube-wells to ensure safe drinking water access in flood-prone and saline-affected areas.
  - Distributed water purification tablets (6,000 units total) and 150 jerricans to support safe household water storage and use.
  - Provided 2,000 liters of safe drinking water through mobile trucking in hardest-hit communities.
- **Sanitation and Hygiene Promotion**
  - Delivered 78 new twin-pit latrines to improve safe sanitation in displaced and flood-affected areas.
  - Distributed 6 kg of bleaching powder to help disinfect communal spaces.
  - Supplied 1,195 hygiene kit boxes across the three upazilas to promote safe personal hygiene, especially in crowded shelters and temporary living spaces.
- **Shelter and Household Support**
  - Supported 32 new house constructions for families who lost their homes to cyclone damage.
  - Distributed 400 tarpaulins to enable rapid emergency shelter solutions and repairs.
- **Food Security and Financial Assistance**
  - Delivered 400 food packages to meet immediate nutrition needs of displaced households.
  - Provided cash support to 1,812 households, enabling families to purchase urgent necessities with flexibility and dignity.
- **Collaborative, Multi-Agency Implementation**
  - Successfully coordinated a broad partnership of government agencies (DPHE), local and international NGOs (JCF, BRAC, BDRCS, WFP, NGOF), and local government representatives to ensure efficient resource mobilization and equitable, transparent distribution.

5. PUBLIC HEALTH

OVERVIEW

EPRC is committed to protecting and improving public health through an integrated, evidence-based approach that addresses the diverse determinants of health in Bangladesh's most vulnerable communities. Recognizing that health outcomes depend on safe water, sanitation, hygiene, environmental conditions, and occupational safety, EPRC designs and delivers interventions that are equity-based, locally appropriate, and sustainable.

In 2024, EPRC's public health initiatives included expanding safe water supply and arsenic mitigation in climate-vulnerable, saline-affected, and arsenic-prone regions, using climate-resilient technologies and equity-based site selection to prioritize the most marginalized households. The organization strengthened hygiene promotion, informed by COVID-19 lessons, by integrating low-cost handwashing facilities and consistent behavior change communication to reduce infection risks.

Beyond household and community WASH, EPRC also addressed environmental health challenges such as air pollution and plastic waste. Urban air quality monitoring in Dhaka and Gazipur provided real-time data to inform policy and public awareness, while behavioral nudges in city markets aimed to reduce single-use plastic consumption. EPRC's emergency response during floods and cyclones delivered essential health protection through clean water, hygiene kits, sanitation support, and shelter materials to disaster-affected families.

Importantly, EPRC also worked to promote occupational safety and preventive health knowledge among marginalized workers. By raising awareness of workplace health risks and building capacity for preventive practices, EPRC sought to improve health outcomes among urban informal workers often excluded from traditional health services. Through these interconnected efforts, EPRC advanced its mission to deliver inclusive, evidence-driven public health improvements that protect health, empower communities, and support Bangladesh's progress toward the Sustainable Development Goals.

5.1 PROMOTING OCCUPATIONAL SAFETY AND PREVENTIVE HEALTH KNOWLEDGE AMONG MARGINALIZED WORKERS

APPROACH

EPRC's approach to promoting occupational safety and preventive health knowledge focused on improving the well-being of garments and textile workers in Gazipur city, who often face crowded, high-risk working conditions with limited access to formal occupational health services. The initiative aimed to raise awareness of workplace health hazards, encourage preventive health behaviors, and strengthen workers' knowledge of practical, low-cost safety practices suitable for the garments sector.

The program delivered targeted training sessions, distributed user-friendly educational materials, and emphasized simple, culturally appropriate messaging to help garments workers recognize common occupational health risks and adopt safer work practices.

- **Study Area and Target Population**: Conducted research on occupational health and safety among garments workers in Bhakhral and Bhadam, Ward No. 52 of Gazipur City Corporation. Covered 58 workers from 14 garment and textile factories living near their workplaces.
- **Assessment of Water Access and Quality:** Found piped water was the main source at both home and workplace. Workers expressed satisfaction with water quality, availability, and taste, noting improvements after the COVID-19 period.
- **Improved Hygiene Practices Post-COVID:** Reported better taste and no smell from improved water sources, encouraging safer drinking practices at home.
- **COVID-19 Knowledge and Preventive Behaviors:** Workers demonstrated sound understanding of COVID-19 transmission. Practiced regular handwashing and social distancing to reduce infection risk.
- **Participation in Workplace Health Activities:** Forty One percent of workers joined factory-organized COVID-19 prevention activities. Activities included discussion meetings, handwashing demonstrations, mask and soap distribution, and guidance on mask wearing.

ACHIEVEMENT

- **Targeted Research on Garment Workers' Health and Safety:** Successfully conducted a focused occupational health and safety study among 58 garment workers from 14 factories in Bhakhral and Bhadam, Ward No. 52 of Gazipur City Corporation, ensuring representation of a highly vulnerable labor group.
- **Enhanced Understanding of Water Access and Quality**: Identified that both households and workplaces primarily rely on piped water sources. Workers expressed increased satisfaction with the quality, availability, and taste of water, highlighting notable improvements in safe water supply after the COVID-19 period.
- **Promotion of Safe Hygiene Practices Post-COVID**: Documented positive behavioral changes as workers reported safer drinking practices, such as consuming water with no unpleasant taste or odor, contributing to improved household hygiene and reduced health risks.
- **Strengthened Knowledge and Practices on COVID-19 Prevention**: Demonstrated workers' strong awareness of COVID-19 transmission routes, with widespread adoption of preventive behaviors such as frequent handwashing and maintaining social distancing, displaying the effectiveness of health awareness initiatives.
- **Increased Worker Participation in Health-Promoting Activities**: Achieved significant engagement with 41% of workers actively participating in factory-led health initiatives, including awareness meetings, practical handwashing sessions, and the distribution of masks and soaps. This indicates growing collaboration between factories and workers to safeguard occupational health.

6. EDUCATION, TRAINING AND CAPACITY BUILDING

OVERVIEW

The education programs have demonstrated a comprehensive and inclusive approach to strengthening primary education and promoting hygiene awareness across schools and communities in Bangladesh. Two key interventions—the WASH in Schools Program and the Out of School Children (OOSC) Education Program under PEDP-4—have been particularly impactful in enhancing educational access, equity, and sustainability.

The WASH in Schools Program was implemented across 95 schools, directly reaching 18,275 students with improved sanitation and hygiene education. Teachers and School Management Committees (SMCs) were trained to integrate WASH topics into school curricula, institutionalizing hygiene practices. A strong focus was placed on menstrual hygiene management (MHM), with 2,200 adolescent girls receiving targeted training, contributing to reduced stigma and increased attendance. To support sustainable implementation, six stakeholder training manuals were developed covering areas such as hygiene promotion, gender inclusion, and water system maintenance. A total of 6,365 individuals—including teachers, health workers, local representatives, and CBO members—were trained to promote safe WASH practices. Broader community engagement reached over 40,000 people through awareness campaigns aimed at eliminating open defecation and improving household hygiene. These efforts were further supported by the distribution of Information, Education, and Communication (IEC) materials in partnership with UNICEF.

Complementing this, the OOSC Education Program under PEDP-4 targeted children aged 8–14 who had never enrolled in or had dropped out of school. Utilizing a flexible, community-based model, the program established non-formal learning centers that provided accelerated learning equivalent to Grades 1–5 over a 3–4 year cycle. Upon completion, learners received certification equal to that of formal primary school graduates. The program focused on marginalized groups—particularly children from remote areas, ethnic minorities, and those with disabilities—and emphasized gender equity. Key strategies included community mapping, modular curricula, locally trained facilitators, and continuous monitoring to ensure learning quality. The initiative directly contributes to Sustainable Development Goal 4 (SDG 4) by reducing educational disparities and ensuring that no child is left behind.

Together, these programs have not only expanded access to education but also improved learning environments, built capacity at the school and community levels, and promoted inclusive development through active stakeholder engagement.

6.1 OUT OF SCHOOL CHILDREN (OOSC) EDUCATION PROGRAM

APPROACH

To implement this program BRAC has been engaged as the Implementation Supporting Agency (ISA) and EPRC has been engaged as the Implementation Assisting Agency (IAA). The Out of School Children (OOSC) Education Program under PEDP-4 adopts a flexible, inclusive, and community-driven approach to bring marginalized children aged 8–14 into the education system. The program begins with comprehensive mapping to identify OOSC across Cumilla district, focusing on underserved groups such as children from remote areas, urban slums, minority communities, and those with disabilities.

Once identified, learners are enrolled in *non-formal Learning Centers* (LCs) established close to their communities. These centers offer an *accelerated learning curriculum* equivalent to grades 1–5 within a shorter timeframe (typically 3 years), enabling older children to catch up and transition into formal secondary education or skills training. EPRC as the IAA responsible to operate 10 LCs under Ward No. 22 and 23 in Cumilla City Corporation and 30 LCs in rural areas of Monoharganj Upzila in Cumilla district.

Locally appointed teachers are trained to deliver *child-friendly, competency-based instruction* in a supportive environment. The program emphasizes *flexible learning hours*, continuous assessment, and life skills education, with strong community engagement to ensure retention and success. Partnerships with NGOs and local stakeholders enhance outreach, monitoring, and quality assurance, ensuring that the approach remains responsive, scalable, and sustainable.

ACHIEVEMENT

- **Full Target Achievement in Cumilla:** Successfully established and operated 40 Learning Centers in Cumilla City Corporation and in Monoharganj Upazila with 100% enrollment (1500 children), all of whom completed education up to Grade V by December 2024, meeting both enrollment and academic targets.
- **Improved Learning Outcomes:** Students demonstrated good subject competency, became literate in Bengali and English, acquired basic math skills (including fractions), and engaged in creative activities like drawing and handicrafts—indicating well-rounded development.
- **Accelerated and Flexible Learning Model:** Delivered a condensed curriculum equivalent to Grades 1–5 within 3–4 years, enabling students to reintegrate into formal secondary or vocational education pathways, while addressing age-appropriate learning needs.
- **Enhanced Community and Institutional Capacity:** Strengthened parental awareness, increased community ownership, and built the capacity of teachers and facilitators through structured training—creating a supportive environment for sustainable, inclusive education.

Overall, the OOSC Education Program has effectively reduced education gaps, empowered underserved communities, and advanced the national goal of universal primary education, making a lasting impact both locally (Cumilla) and nationally under PEDP-4.

6.2 WASH IN SCHOOLS PROGRAM

APPROACH

The approach of the WASH in Schools program was designed to integrate safe water, sanitation, and hygiene practices into the education system while promoting behavioral change among students and communities. The program began by assessing the capacity of schools, teachers, and school management committees (SMCs) to identify gaps in WASH knowledge and facilities. Based on this assessment, training modules and manuals were developed to build the technical and managerial capacity of teachers, SMCs, and community-based organizations. A child-centered learning approach was adopted, ensuring that students became active participants in hygiene promotion through hands-on demonstrations, awareness campaigns, and peer-to-peer learning.

A strong emphasis was placed on gender-sensitive interventions, particularly menstrual hygiene management (MHM), to ensure that adolescent girls had the knowledge and facilities needed to manage their health safely. Infrastructure development was coupled with behavioral change activities, such as providing safe drinking water points, handwashing stations, and improved sanitation facilities in schools. Simultaneously, Information, Education, and Communication (IEC) materials—posters, billboards, wall paintings, handwashing stickers—were distributed widely to reinforce hygiene messages both inside and outside classrooms.

The program also adopted a participatory approach, engaging parents, local government institutions, and communities in awareness-raising activities to strengthen ownership and sustainability. This community involvement helped reinforce WASH education in schools by creating supportive environments at home and in the broader community. By combining capacity building, infrastructure improvement, gender inclusion, and community engagement, the WASH in Schools program successfully established schools as hubs for sustainable hygiene education and long-term behavioral change.

ACHIEVEMENT

The WASH in Schools program achieved significant progress in improving hygiene, sanitation, and water safety among students and communities.

- **School-Based Hygiene Education:** Improved hygiene and sanitation practices in 95 schools, reaching 18,275 students and integrating WASH into the curriculum through trained teachers and SMCs.
- **Gender-Inclusive Support:** Provided Menstrual Hygiene Management (MHM) training to 2,200 adolescent girls, reducing absenteeism and promoting health and confidence.
- **Capacity Building of Stakeholders:** Trained 6,365 individuals—including teachers, health workers, and local leaders—through six tailored WASH training modules and manuals.
- **Community-Wide Engagement:** Reached over 40,000 community members through awareness campaigns focused on eliminating open defecation and improving hygiene behavior.
- **WASH Awareness Materials:** Distributed diverse IEC materials (posters, wall art, stickers, etc.) to reinforce hygiene messages in schools and surrounding communities.

Overall, the WASH in Schools program not only improved the immediate learning environment for thousands of students by providing safe and hygienic facilities but also strengthened community awareness, promoted gender-sensitive practices, and laid the foundation for long-term sustainable WASH behavior across the targeted areas.

OVERVIEW

The Global Applied Research Network -South Asia (GARNET-SA) is one of the EPRC's programs and its global coordination is conducted by EPRC in collaboration with an Advisory Committee. The main objective of the network is to build capacity of the professionals/practitioners based on exchange of applied research related information on drinking water, sanitation, environment, agriculture and climate change adaptation. It is a member demand-based network. The specific activities and topics of interests are updated /modified according to the suggestions of the members. It is a voluntary and open-to-all knowledge exchange initiative organized by local and international professionals. The network advisory committee comprised of representatives from Bangladesh Water Resources Planning Organization (WARPO), Department of Environment (DOE) World Health Organization Bangladesh, UNICEF Bangladesh, BCSIR, WEDC, Loughborough University UK, OSAKA, Japan, Indian Institute of Bio-Social Research and Development (IBRAD), All India Institute of Public Health and John Hopkins University USA. Recently GARNET-SA India has been launched by Indian Institute of Bio-Social Research and Development (IBRAD). Professor S. B. Roy, Chairman of IBRAD is coordinating it in collaboration with Dr Bilqis Amin Hoque.

The GARNET-SA began functioning formally in Bangladesh in April, 1992. It was launched by a group of professionals from ICDDRB, UNICEF, Department of Public Health Engineering (DPHE), Department of Disaster Management (DDM), DFID, WHO, Bangladesh Council of Scientific & Industrial Research (BCSIR), Agency for Social, Forestry & Environmental Conservation (ASFEC), Development Association for Cooperation in Bangladesh (DACOB), CARE Bangladesh, following a workshop on "Mobilization of Non-governmental Organizations (NGOs) in water supply and sanitation" in BRAC Auditorium Rajendrapur on April 12-13, 1992. The GARNET-Bangladesh joined the global GARNET by the Water Engineering and Development Center (WEDC) at Loughborough University, UK and The Water Supply and Sanitation Collaborative Council (WSSCC) in 1995. The Network then scaled-up its activities to South Asia and international level in 1997 in collaboration with WEDC (as GARNET-SA). The secretariat of GARNET-SA moved from ICDDRB to EPRC in 2000. Currently there are approximately 600 organization members from different kinds of organizations in Bangladesh and other countries in South Asia, USA, UK and Japan. The memberships are offered to different organizations. Individuals can become members in specified cases. Application forms can be obtained from EPRC offices and this website. Dr. Bilqis Amin Hoque was the Coordinator/Principal Investigator of the network since its formation until her death in August 01, 2023.Now the network is coordinated by Dr. M Mozzammel Hoque, Executive President, EPRC.

The main activities of GARNET-SA include holding workshops and seminars, organizing training, collaborative research and educational program, production of six-monthly newsletters and other reports as well as communication materials, and collaborative relief and recovery activities in hazards/disasters. GARNET-SA has been organizing four or more local information sharing and training workshops per year. As of 2010 it has organized 40 numbers of national & 05 numbers of international conferences, conducted a few collaborative researches on development of arsenic removal technology (Home-made Emergency GARNET filter) and other issues, produced communication materials with member organizations, provided environmental, hygiene, ORS and other relief support in almost all disasters in Bangladesh, and done other activities in collaboration with member organizations. The local workshops have been designed to build the capacity of small NGOs, schools, local government institutions and other local stakeholders as demanded by the local GARNET-SA members. In addition, six monthly GARNET newsletters have been produced and distributed among the members since 1996. GARNET-SA sincerely appreciates your and your organization's contribution to the continuing realization of its objectives and implementation of the activities

7. QUEST HUMANITY PROGRAM

OVERVIEW

The Quest Humanity Program is EPRC's comprehensive human development initiative aimed at advancing the well-being of marginalized and vulnerable groups in Bangladesh. Recognizing the realities of poverty, social exclusion, and lack of economic security that make life especially difficult for disadvantaged communities, the program was designed to bring positive, sustainable change across multiple dimensions of people's lives.

Rooted in EPRC's mission of social justice and equity, the Quest Humanity Program works to address the critical needs of children, women, and disaster-affected families by integrating education, health, nutrition, empowerment, and livelihoods support. Its activities include integrated education and skill development for orphan and disadvantaged children**,** nutrition and education support for underprivileged children**,** women's education and awareness programs**,** nutritional support and awareness for pregnant women**,** financial assistance for economically struggling families**,** rapid relief distribution in disaster-affected areas**,** and training with material support for self-employment, especially among women**.**

Through this holistic approach, EPRC aims to break cycles of poverty and vulnerability by not only meeting immediate needs but also building the foundations for long-term self-reliance, dignity, and opportunity. The program is committed to expanding its coverage and deepening its impact in the coming years, striving for a more just, equitable, and resilient society where no one is left behind.

APPROACH

EPRC's Integrated Education and Skill Development Program for Orphan and Disadvantaged Children and Adolescents is designed to ensure access to free, quality education for vulnerable rural children who lack family support or financial means. The program operates through Jamiaul Ulum Madrasa, established in June 2022 in Mautupi-Mandartali village, Baganbari Union, Matlab Uttar Upazila, Chandpur district, on the initiative of EPRC's late founding president, Professor Dr. Bilqis Amin Hoque.

The approach focuses on providing a safe, supportive, and culturally rooted learning environment that meets both academic and basic living needs of orphans and disadvantaged children. The madrasa delivers education following the Befaqul Madarisil Arabia Bangladesh (BEFAQ) curriculum, combining Arabic, Bangla, Mathematics, English, and general knowledge. Instruction is structured into three levels: Nurani (pre-primary), Nazera (Qur'an recitation), and Hifzul Qur'an (memorization).

EPRC's approach ensures not only formal education but also comprehensive welfare by offering free textbooks, notebooks, stationery, three nutritious meals daily, safe accommodation, regular healthful sanitation facilities, and recreational space. Emphasis is placed on moral education and the overall mental and spiritual development of the students.

ACHIEVEMENT

Establishment and Operation: Successfully established and operated Jamiaul Ulum Madrasa under the Quest Humanity Program, serving orphan and disadvantaged children in a rural area.

- **Accredited Curriculum Delivery:** Affiliated with BEFAQ, ensuring a recognized curriculum covering Arabic, Bangla, Mathematics, English, and general knowledge.
- **Structured Educational Levels:** Maintained three distinct educational levels (Nurani, Nazera, Hifzul Qur'an) to support age-appropriate learning and religious studies.
- **Free Access for Vulnerable Children:** Provided free education to 38 enrolled students, ensuring access regardless of family income.
- **Provision of Learning Materials:** Ensured comprehensive support, including free textbooks, notebooks, and learning materials for all students.
- **Comprehensive Nutrition and Boarding:** Delivered three nutritious meals daily and offered safe, secure boarding facilities with clean latrines, safe drinking water (via deep tube-well), and dedicated recreational spaces.
- **Additional Welfare Support:** Distributed at least one set of new clothes annually and provided special meals during Ramadan to support the children's dignity and well-being.
- **Vision for Future Readiness:** Committed to the vision of preparing students for international-standard education, building the foundation for lifelong learning and self-reliance.

7.2 EDUCATION AND NUTRITION PROGRAM FOR UNDERPRIVILEGED

APPROACH

EPRC's Education and Nutrition Program for Underprivileged Children was launched in 2020 to address the urgent needs of children in Tongi, Gazipur, who face heightened risks due to poverty, parental absence during work hours, and lack of safe childcare. Many parents in this area work as day laborers or in garment factories—often single mothers—leaving children vulnerable to neglect, child labor, substance abuse, and early involvement in crime.

The program's approach is to provide a secure, nurturing environment for one full year, helping these children adapt to structured learning and preparing them for integration into mainstream schools or madrasas. EPRC offers free education, nutritious meals, and emotional support in a safe setting designed to foster holistic development. The curriculum combines Bangla, mathematics, general knowledge, religious values, and behavior education, delivered by a dedicated teacher who provides care with maternal warmth. Weekly recreational and cultural activities promote mental well-being and social skills.

This initiative is funded through community generosity and is guided by a commitment to reduce child vulnerability, support working mothers, and lay the foundation for lifelong learning and improved well-being.

ACHIEVEMENT

- **Sustained Program Delivery Since 2020**: Successfully operated for four consecutive years in the Tongi area, targeting highly vulnerable children.
- **Safe, Structured Learning Environment**: Created a secure, child-friendly space where children spend the day in structured learning and supervised care, protecting them from child labor, street risks, and exploitation.
- **Growth and Reach**: Started with just 8 children in 2020, growing to an average of 25 children per year. A total of 115 children have participated from 2020 to 2024, with 22 children enrolled in 2024**.**
- **Educational Support and Free Learning Materials**: Delivered a comprehensive curriculum including Bangla, mathematics, general knowledge, religious and behavioral education. Provided free books, notebooks, pens, and educational supplies to all enrolled children.
- **Nutritional Support and Meals**: Offered daily nutritious lunches to all participating children, supporting healthy growth and reducing food insecurity.
- **Personalized, Caring Instruction**: Employed a dedicated teacher who delivers lessons with maternal care and emotional support, fostering trust and learning readiness.
- **Holistic Child Development**: Included weekly recreational and cultural classes to encourage mental well-being, creativity, and social interaction**.**
- **Community-Supported and Future-Focused**: Operated with community donations and local goodwill, with plans to expand services so that 100+ underprivileged children can benefit in the coming years.

APPROACH

EPRC's Women's Education and Awareness Program was launched in 2015 to address the longstanding educational and social exclusion faced by many women in Tongi who never had the opportunity to attend school or complete basic education. Recognizing that domestic responsibilities and cultural barriers often keep these women from formal learning spaces, EPRC designed a community-based, flexible model that delivers education directly to women in their own courtyards and neighborhoods.

The approach began with informal literacy sessions and has evolved into a more systematic and structured program offering weekly adult education classes. It emphasizes not only literacy and general knowledge but also religious and moral education, with special month-long courses during Ramadan that include group Tarawih prayers and instruction in basic Islamic principles. EPRC also conducted demand surveys to tailor the program to local needs and has plans to develop topic-based training modules, teaching materials, and permanent facilities to support women's skill development and empowerment.

ACHIEVEMENT

- **Consistent Delivery Since 2015**: Sustained women-focused education and awareness activities in Tongi for nearly a decade.
- **Accessible Community-Based Learning**: Delivered education directly in women's own neighborhoods, overcoming barriers of mobility, domestic work, and cultural constraints.
- **Structured Weekly Adult Education**: Conducted weekly literacy and general education classes tailored to adult women with limited or no prior schooling.
- **Focused Religious and Moral Education**: Organized month-long Ramadan sessions emphasizing Islamic teachings, group Tarawih prayers, and moral development.
- **Significant Reach and Impact**: Reached approximately 250 women so far, building their knowledge, confidence, and community engagement.
- **Participatory and Needs-Based Design**: Carried out demand surveys to identify local priorities and shape relevant, culturally appropriate programming.
- **Future Expansion and Capacity-Building Plans**: Developed plans for topic-based training modules, production of teaching materials, permanent learning facilities, and expanded programming to support women's skills development and empowerment.

7.4 NUTRITIONAL SUPPORT AND AWARENESS PROGRAM FOR PREGNANT WOMEN

APPROACH

EPRC's Nutritional Support and Awareness Program for Pregnant Women was launched in 2021 to address the pressing health risks faced by expectant mothers in densely populated, low-income areas such as Tongi, Gazipur. Recognizing that many women lack access to essential prenatal care, nutritious food, and health education, the program is designed to improve maternal and newborn health outcomes by providing direct nutritional support, awareness-raising, and family engagement**.**

The approach emphasizes equity-based targeting of economically vulnerable pregnant women, delivering practical, low-cost, and culturally appropriate support. Families are encouraged and guided to prioritize maternal nutrition and routine health checkups through their own means wherever possible. For households unable to afford nutritious food, EPRC provides monthly cash support of BDT 1,000 to purchase healthy foods during pregnancy.

The program also includes regular mobile follow-up calls and monthly in-person discussions with pregnant women and their families to reinforce key health messages, promote sustained behavior change, and ensure continuous support. Special emphasis is placed on mental and spiritual well-being, offering holistic care that helps lay the foundation for a healthier next generation.

ACHIEVEMENT

- **Targeted Support for Vulnerable Pregnant Women**: Focused on low-income, high-risk communities in Tongi, Gazipur with limited access to prenatal nutrition and care.
- **Direct Cash Assistance for Nutrition**: Provided monthly BDT 1,000 cash transfers to families unable to afford nutritious food for pregnant women.
- **Behavior Change and Family Engagement**: Conducted monthly in-person/courtyard discussions with pregnant women and their families to increase awareness of prenatal and postnatal health practices. Encouraged families to invest in routine health checkups and nutrition with their own resources.
- **Consistent Follow-Up and Monitoring**: Used mobile phone follow-up to remind families about nutrition goals and monitor health practices.
- **Demonstrated Impact**: 39 pregnant women have benefited directly from the program to date.
- **Future Plans for Expanded Service Delivery**: Planning to expand coverage, deliver routine home-based nutrition support, improve health awareness sessions, and raise the quality of health checkup services through field staff, contingent on additional funding.

7.5 FINANCIAL ASSISTANCE PROGRAM FOR MEMBERS OF ECONOMICALLY DISADVANTAGED FAMILIES

APPROACH

EPRC's Financial Assistance Program for Members of Economically Disadvantaged Families was launched in 2015 with the goal of directly supporting Bangladesh's fight against poverty in line with SDG 1 and the government's 8th Five Year Plan (2021–2025). The program recognizes that many families struggle to meet even their basic daily needs, lacking the income security to access food, shelter, healthcare, and education.

The approach focuses on providing targeted, equity-based financial assistance to the most vulnerable households to help improve their quality of life and address urgent needs. Support is designed to be flexible and responsive, offering both regular monthly cash transfers to selected families and one-time or needs-based cash assistance to others facing acute crises. By delivering direct financial aid, EPRC aims to reduce the pressures of extreme poverty and create opportunities for families to stabilize and plan for a more secure, dignified future.

ACHIEVEMENT

- **Long-Term Commitment Since 2015**: Operated continuously for nearly a decade to support poverty reduction among Bangladesh's most vulnerable households.
- **Regular Monthly Financial Assistance**: Currently provides consistent cash support to 7 low-income families, ensuring they can meet essential needs such as food, shelter, and healthcare.
- **Responsive, Needs-Based Aid**: Delivered additional one-time or ad hoc cash assistance to families facing sudden crises or extraordinary hardship.
- **Poverty Reduction and Social Inclusion**: Helped economically disadvantaged households improve their basic living standards, reducing their vulnerability to hunger, homelessness, and deprivation.
- **Alignment with National and Global Goals**: Directly supports SDG 1 (No Poverty) and Bangladesh's 8th Five Year Plan commitment to end extreme poverty and promote inclusive development.
- **Vision for Expansion**: Plans to broaden coverage and increase the number of supported families in the coming years, reinforcing EPRC's role in building a dignified, self-reliant, poverty-free society.

APPROACH

EPRC's Training and Distribution of Materials for Self-Employment of Marginalized Communities, Especially Women aims to break the cycle of poverty and economic exclusion by equipping disadvantaged groups—particularly women—with practical skills and resources for self-employment. Recognizing that many women and marginalized families lack access to training, capital, or employment opportunities, the program is designed to promote sustainable livelihoods, financial independence, and gender equality.

The approach aligns with Bangladesh's 8th Five Year Plan and SDGs 1 (No Poverty), 5 (Gender Equality), and 8 (Decent Work and Economic Growth**)**. EPRC delivers targeted skills training in areas such as tailoring, handicrafts, food processing, and agriculture, combined with the provision of essential start-up materials. By investing in both capacity-building and resource support, the program enables participants—especially women—to launch or expand income-generating activities and achieve greater economic security and dignity.

ACHIEVEMENT

- **Empowering Women Through Skills Training**: Provided training to 150 women in areas including tailoring, handicrafts, food processing, and agriculture, tailored to local economic opportunities.
- **Distribution of Start-Up Materials**: Distributed 10 sewing machines**,** 10 goats, and 200 indigenous chickens and ducks to help participants establish sustainable self-employment ventures.
- **Fostering Self-Reliance**: Enabled approximately 50% of participating women to achieve greater financial independence and self-reliance through their new or expanded income-generating activities.
- **Focus on Marginalized and Low-Income Communities**: Targeted economically disadvantaged groups, especially women with limited education or work experience, to promote inclusive, equitable development**.**
- **Contribution to National and Global Goals**: Supported Bangladesh's 8th Five Year Plan priorities and advanced progress toward SDG 1 (ending poverty), SDG 5 (gender equality), and SDG 8 (decent work and economic growth) by promoting sustainable, inclusive livelihoods.

Our Development Collaborators and Partners

EPRC has maintained national and international partnerships for addressing the challenges and conducted/initiated many new and innovative researches, education, service and training activities.

International

- Bill & Melinda Gates Foundation
- Asian Development Bank (ADB)
- World Bank Bangladesh (WB)
- Dutch Research Council (NWO)
- Global Water Partnership (GWP)
- All India Institute of Hygiene and Public Health (India)
- Japan International Cooperation agency (JICA)
- Child Health Foundation (CHF), USA
- Russell IPM, UK
- Stockholm Environment Institute, Sweden
- The Flora Family Foundation, USA
- FCDO (DFID) Bangladesh
- Ocean Foundation, USA
- UNIFEM, India
- Qatar Charity
- Rotary International

Universities:

- Delft University of Technology (TU Delft), Netherlands
- University of Washington, Seatle, USA
- University of Stirling, Scotland, UK
- WEDC at Loughborough University, UK
- Johns Hopkins University, USA
- Nagoya University, Japan
- The University of York, UK
- Columbia University, USA
- Bangladesh Agricultural University (BAU)
- Kyoto University, Japan
- University of Southampton, UK
- United Nations University, Japan
- Patuakhali Science & Technology University

National/GoB

- Bangladesh Water Development Board (BWDB)
- Department of Public Health Engineering (DPHE)
- Bureau of Non-Formal Education (BNFE)
- Department of Environment (DOE)
- National Institute of Local Government (NILG)
- Local Government Engineering Department (LGED)
- Ministry of Health and Family Welfare (MoHFW)
- Department of Disaster Management (DDM**)**
- Bangladesh Rice Research Institute (BRRI)
- Rural Development Academy (RDA)
- Dhaka North City Corporation
- Ministry of Environment and Forest
- Bangladesh Livestock Research Institute
- Department of Livestock Services
- Bangladesh Agricultural Research Institute (BARI)

United Nations:

- UNICEF, Bangladesh
- World Health Organization (WHO)