



CSC Evaluation and Monitoring Programme

Tackling Natural and Human Induced Disasters in Urban Slums of Bangladesh

Reasat Faisal



Bangladesh is a densely populated South Asian country with a population of approximately 165 million. It is also one of the countries most susceptible to natural and human-induced disasters, including floods and fires, which have resulted in loss of life, destroyed agricultural crops, and hindered economic growth.

The existence of unplanned and illegal structures, such as slums and squatter settlements built by urban low-income communities, is a prominent feature of Bangladesh, particularly in Dhaka, the country's capital city and major economic hub. While there are a number of environmental

issues affecting this area, fire hazard-related disasters in particular require urgent attention. Promoting awareness of fire hazard risks and identifying effective mitigation measures can play a pivotal role in preventing fire outbreaks in these vulnerable locations. Reasat Faisal, a Commonwealth Alumnus, successfully implemented various innovative fire prevention measures while working for Bangladesh Rural Advancement Committee (BRAC), particularly focusing on capacity building and empowerment of slum residents and changing habits to tackle climate change and disasters.



Shialbari Jhilpar Slum in Rupnagar on fire in 2020.

Reasat Faisal was awarded a Commonwealth Shared Scholarship in 2016 to study for a Master's Degree in International Planning and Sustainable Development at University of Westminster. Upon completion of his studies, he returned to Bangladesh to continue working for his previous employer, Bangladesh Rural Advancement Committee (BRAC), as a Programme Specialist for Climate Change, Strategy and Research. He has led the implementation of projects on fire prevention in low-income communities in informal settlements and has successfully promoted the establishment of climate-resilient low-cost housing for these communities, thereby building the capacity of the vulnerable communities to tackle climate change and disasters. He is also a founding director of Kindling, a non-profit organisation which aims to support and inspire fire safety improvements, with a focus on low-income communities.

Becoming a Development Practitioner

Prior to being awarded a Commonwealth Scholarship, Reasat had been working for Bangladesh Rural Advancement Committee (BRAC), an NGO that aims to empower communities to overcome poverty and gain access to affordable basic services including health facilities, education, affordable housing and transportation, as well as opportunities to effectively engage with the government to realise their rights and entitlements. This work for BRAC marked the beginning of his career as a development practitioner.

‘Being the eldest child in my family I did choose to study Engineering thinking that it may lead to a future. Little did I know that I would become a development practitioner, a profession that gives me mental satisfaction as I work directly for the poor and marginalised groups in society.’

He added that, while urbanisation in Bangladesh contributes to economic development, rapid and unregulated urbanisation is accompanied by numerous and persistent challenges including increasing poverty and inequalities. While with BRAC, Reasat implemented various projects aimed at improving the well-being of urban, low-income communities through the reduction of multi-dimensional poverty and deprivation. He was also tasked with identifying opportunities for new, innovative projects and generating sustainable solutions to urban problems in Bangladesh. Before taking up his Commonwealth Scholarship, Reasat wrote:

‘Learning from my work, I figured out that I needed technical skills to understand the urban issues that Bangladesh is facing. Such an opportunity is now being provided by Commonwealth Shared Scholarships which will push me to think through the lens of sustainability. When I come back to my country, I intend to continue contributing to the urban development sector.’

By taking up a Commonwealth Shared Scholarship at the University of Westminster to study for a Master’s Degree in International Planning and Sustainable Development, he hoped to gain more knowledge and skills for tackling developmental issues and promoting sustainable development.

While on-scholarship, one of his ‘back home action plans’ was to use the knowledge and skills acquired to develop, trial and implement innovative projects in Bangladesh.

‘I would continue researching, finding new and better ways to face the urban challenges, and develop innovative ideas which will be piloted and tested before implementation keeping in mind the sustainability of the project.’

As part of his Master’s study, Reasat visited Kenya and Brazil to work with the local governments on city planning.

This international exposure gave him an opportunity to learn from other countries’ good practices on developmental issues.

‘Before the Scholarship, my knowledge and understanding of developmental issues was limited to my own country and its challenges. I realised how important it is to look at a problem with a broader set of eyes and how to identify the potential solutions for that problem.’

Following completion of his studies in the UK, the Commonwealth Alumnus and passionate development practitioner Reasat returned to his home country, and to his former employer BRAC. Working as a team lead for the development of BRAC’s Urban Development Strategy for 2018 to 2022, he has been instrumental in developing and managing a number of vital programmes and projects, and establishing strategic partnerships with local and international organisations.

‘The network that was established through the Commonwealth platform helped me to reach out to relevant stakeholders from the government, academia and other NGOs more confidently and influence them to collaborate with me to work on aligned goals to tackle the urban problems.’

As an urban resilience expert, Reasat has led the Climate Change and Disaster Risk Reduction Department at BRAC and successfully implemented pilot projects on fire prevention, renewable energy and waste management in the informal settlements. He has also worked on climate-resilient low-cost housing, capacity building for vulnerable communities to tackle climate change and disasters and providing access to affordable quality services.

Empowering Slum Residents Through Fire Prevention

Fire outbreaks are a frequent occurrence in the urban slums of Bangladesh, settlements dominated by marginalised, low-income communities. Despite the high risk of fire hazards posed by poor housing infrastructure, these communities have lacked both knowledge and adequate support to prevent or respond to such disasters. Reasat has led an innovative pilot project on fire prevention mechanisms, currently being replicated in 20 cities across Bangladesh. To implement this project successfully, Reasat being a human-centric design (HCD) specialist, used this approach, which incorporated the perspectives of the communities living in slums, alongside other stakeholders, to identify effective fire prevention measures.

‘This Scholarship gave me the much-needed confidence to go ahead and test out solutions through pilot projects and gather enough knowledge and insights which can help not only BRAC but also other NGOs and government to scale up the projects.’

This mechanism involves a holistic approach to tackling fire using innovative technical interventions, in this case training firefighting volunteers recruited from the slum residents.



Community Fire Heroes (Volunteers) demonstrating fire prevention mechanisms during Mock Drill in Korail (Dhaka) informal settlement in 2019.

In addition, Reasat has developed educational materials and an animated film promoting fire prevention practices, some of which have been used to raise awareness in local schools on fire hazards and prevention mechanisms.



300 school students participated in fire safety and fire prevention sessions organised for the Fire Project at Dhaka city in 2019.

He has also been instrumental in establishing a strong relationship between slum residents and government institutions such as the Fire Service and Civil Defence to ensure that fire emergencies are dealt with promptly and effectively.

'I trained 400 volunteers from within these communities. The success of this mechanism was evident when two urban slums stopped the fire from spreading and prevented the loss of more than 1,500 households and 5,000 slum residents.'

As of 2020, up to **500** community members had been provided with certified training on fire prevention, and **300** households received fire sensors. A total of **110** streetlights were installed to service up to **16,270** local residents. Moreover, **500** households were provided with solar home energy systems, and **104** households received housing support.



Community Fire Volunteers trained by Bangladesh Fire Service & Civil Defence (BFSCD).

While studying in the UK, Reasat also worked [part-time] as an Urban Planner for Arup, a British firm of technical specialists, including designers, planners, engineers, architects and consultants, that work on different aspects of the built urban environment. While with Arup, he had the opportunity to work on various international developmental projects targeting Pakistan, Bangladesh, and countries in Africa. This hands-on experience further improved his knowledge and skills on developmental issues which he transferred to his work tasks at BRAC upon returning home.

Building on his work on fire prevention, Reasat partnered with a former work colleague from Arup to establish Kindling as a founding director in 2020, an NGO that offers consultancy services, research and development, advocacy, education, and training to support fire safety improvements in low-income communities around the world.

'The work experience in Arup and the networks [I] established eventually led to founding an NGO, Kindling.'

As part of this work, Reasat is leading fire prevention projects in South Africa and Bangladesh which are currently in the implementation phase.

Bringing Solar Energy to Informal Settlements

Reasat has collaborated with academics from the engineering department at BRAC University in Bangladesh to trial and implement a solar project, targeting communities in informal settlements that have lacked access to a sufficient electricity supply to meet their daily energy requirements. Starting with a few households living in slums within Dhaka and Cox's Bazar, Reasat introduced solar cooking stoves in these communities and encouraged residents to document their experiences using this technology in order to monitor its effectiveness.

'When they [community members without solar energy] saw the benefits of having light at night [from their neighbours] and the impact on children who could now study properly [at night] they were motivated to try using solar energy. Now the whole informal settlement is under this renewable energy project.'

Empowering these communities, particularly the ones that were receiving some electricity, to switch to solar panels was a challenge, as Reasat was in many cases competing with illegal electricity suppliers. It took several attempts to convince these communities to invest in solar panels by educating them on the long-term benefits for the communities and the environment.

'Two things that helped me is when the community got on board. They are important, and I had to make them feel important that they are part of this big project. And then the government got on board as well.'

While the project started with just six households, it has now reached approximately 1,000 households. To ensure immediate access to solar panels at affordable prices for these low-income communities, a micro-finance scheme has been introduced by BRAC allowing monthly instalments to be paid on solar purchases.

Improving Waste Management

Waste management is also a major challenge in the informal urban settlements of Bangladesh, which tend to be neglected by the local government due to insufficient financial resources allocated for public health issues. With support from his managers at BRAC, Reasat has also been working towards improving the waste management system in Bangladesh.

'BRAC has always shown trust in me and supported me and gave me freedom to implement numerous projects and waste management project was one of them where I needed that independence to work with a team with the expertise I needed for this project.'

He set up a waste disposal management system that acts as a common platform between low-income communities and local governments to collaborate on waste management. Among other priorities, the system targets better recycling practices, behavioural change, and the creation of green jobs for low-income communities.



Community waste collector collecting household waste and transports it to secondary dumping stations.

This project has benefitted up to **50,000** low-income individuals who are living in urban slums and is being replicated in five cities across Bangladesh. Additionally, **356** residents and **3,850** students who are attending local schools now have access to safe drinking water, and **20** community-managed toilets were constructed to benefit up to **2,250** local people.

'The knowledge of segregating the waste, and the benefits that come with it, is something that I learned from my studies while I was in the UK. I did some assignments which were based on waste management.'

Working collaboratively with the local government and the slum residents was key to the success of this project. Among other benefits, the idea of segregating waste and selling the recyclable materials was very attractive to the urban, low-income communities as it presented an opportunity to generate income. The communities were committed to this project as there was a financial incentive for taking the waste from the slums to the landfill or to the government recycling centre where the waste was segregated. Meanwhile, they were helping to clean up the slums and informal settlements. The project was scaled up in all 20 participating cities.

Addressing Food Insecurity Through Urban Agriculture

Working closely with community organisers, and agriculture experts, Reasat was also involved in the implementation of the Urban Agriculture Project as part of the BRAC Urban Development Programme, adopted to improve livelihoods of low-income communities. Starting with pilot projects across 20 cities, approximately 20,000 packets of seeds and seedlings were distributed to more than 35,000 households in urban settlements. To complement traditional crop production methods used in the community, BRAC has worked collaboratively with local community organisers who have agricultural expertise to train the project beneficiaries on plant growth and management using improved technologies. Up to 10,500 low-income community members are now practicing urban agriculture. This has improved food supply and livelihoods for the project participants.

Surplus produce has also been donated or sold to other local community members, and this has ensured that food consumed within the city is produced locally. By reducing the need for processing, packaging and transportation, this local food production helps to lower greenhouse gas emissions, thereby contributing to climate change mitigation.

Scaling up of the project has seen BRAC distribute approximately **200,000** plants among **112,400** individuals, and **218** communities have been made aware of disaster risks, resilience strategies, and climate change. Climate migrants were also identified in five climate-vulnerable cities and special support has been provided. Basic services such as water, sanitation and hygiene, waste management, housing facilities, access to financial services, and livelihood development were provided to **9,515** migrants.

Tackling Covid-19 in Bangladesh Through Mapping of Urban Slums

In line with the strand of the BRAC Urban Development Programme that aims to make cities inclusive, safe, and sustainable through the improvement of wellbeing and reduction of multidimensional poverty, Reasat has been instrumental in developing the Bangladesh Urban Slum Map, in collaboration with the real-time data management teams of BRAC.

This is an online database that contains key demographic information of the urban slum residents that has been used to assess their needs.

The map has also played a pivotal role in tackling Covid-19 in Bangladesh. During the pandemic this interactive tool has enabled aid planning to be more effective, reducing duplication and maximising the reach of collective aid efforts. The map currently covers slums in 12 city corporations and 8 municipalities in Bangladesh.

'The technical skill sets as an urban planner were very key to achieve success in my work. I am very confident to express my point of view on relevant issues in bigger platforms and reach out to significant officials or organisations with more conviction.'

The urban slum map will continue to be used in response to disasters in Bangladesh, helping to identify and reach out to the communities in informal settlements to provide relief or other support that may be required. Moreover, it is being used to inform planning for other developmental projects in the urban slums. The Bangladesh government has acknowledged this important tool and plans for scaling up the project in the future are underway.

The Commonwealth Alumnus has been influencing policy at a national level through his work with BRAC, which will inform the Bangladesh Urban Policy currently being drafted by the government. To further enhance his skills and knowledge on developmental issues, Reasat is currently studying for a PhD in the UK, exploring relationships between climate-induced internal migration and the urban economy in Bangladesh in the context of the ready-made garment (RMG) sector.

More about Reasat's developmental work

<http://urbanslummap.brac.net>

<https://www.youtube.com/watch?v=6mUNzMQkFW4&feature=youtu.be>

<https://twitter.com/BRACworld/status/1356132844947402760>

<https://blog.brac.net/urban-agriculture-future-source-of-organic-food-for-city-dwellers/>

<https://www.westminster.ac.uk/about-us/our-people/directory/faisal-reasat>

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