Resilient and resurgent Bangladesh: Sustaining economic growth in a changing climate

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Bangladesh has made impressive leaps in its human development and economic growth, and is now set to become a middle-income country by 2026. Bangladeshi people and economy have shown great resilience in the face of past shocks such as COVID-19, and must now gear up for new challenges. The IGC has been partnering with government and development practitioners for over 10 years and is prepared to continue providing research insights and evidence-based policy recommendations as Bangladesh navigates its growth amidst complex macroeconomic issues, the climate crisis, and increasing global uncertainty.

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Bangladesh's inspiring growth story is well-established. Since the 2000s, per capita GDP has grown by more than two-and-a-half-fold. Poverty has reduced by two-thirds. Access to electricity has jumped to 99% from a meagre 32%. These achievements have been underpinned by tremendous growth in agriculture and exports. Value of agricultural output grew from US$ 24 billion in 2000 to almost double in 2019 at US$ 45 billion. Today, the value of exports stands at US$ 45 billion from less than US$ 7 billion in 2000. Bangladesh is now set to graduate from Least Developed Countries (LDCs) status in 2026. This is a testament to improvements in income, human assets, and reductions in economic vulnerability.

Bangladeshi people have led this growth. Three main actors are behind this remarkable transformation.

1. **Farmers and agriculturalists.** It is their hard work which feeds this densely populated country. Alongside crop farming, massive improvements in poultry and fisheries in recent years have been pivotal.

2. **Diaspora around the world.** There are around 12 million Bangladeshi migrant workers all over the world. Last year, they sent US$ 21.5 billion to the country. Remittance provides Bangladesh with a continuous flow of foreign exchange which is dearly needed for this import-dependent economy.

3. **Workers in the ready-made garment sector.** Entrepreneurs in Bangladesh have built a globally competitive ready-made garments industry on the back of extremely dedicated, low-wage workers. This sector accounts for more than 80% of Bangladesh's export earnings, and the fate of the economy is intertwined with it, at least for the foreseeable future.

No growth story comes without its challenges. Inclusivity is the most important aspect of growth. It ensures even the most vulnerable populations have a chance at improving their circumstances. Bangladesh's growth has greatly reduced poverty, but all segments of its population have yet to realise the benefits of growth. Poverty has persisted, and there is a distinct lack of entrepreneurial skills among Bangladesh's growing middle class. Foreign exchange reserves depleted quickly between August 2021 and January 2023, before stabilising in the middle of the year. External debt is at a relatively comfortable position, but economic activities have to shore up to generate returns on massive investments in rapid infrastructural development.
Bangladesh is entering a new phase in its development journey. The economy has shown resilience in the face of past shocks such as COVID-19 and used its abundantly available low-wage labour relatively well. But to thrive as a middle-income country that is confronted by climate change and an increasingly unstable geo-political climate, the country must utilise its fast-depleting demographic dividend by investing in human capital and ensuring good governance. This is imperative for Bangladesh to attract investment, generate value for its citizens, and reach the goal of *Smart Bangladesh*. 
Over 10 years of IGC in Bangladesh

IGC’s journey in Bangladesh began in 2009. In these years, Bangladesh has transformed its economy by increasing connectivity, raising productivity, and reducing vulnerability. The IGC has collaborated with the Bangladeshi government throughout this journey by providing crucial evidence on policy issues. IGC researchers have worked on various issues including the efficacy of large infrastructure, ways to protect the vulnerable by expanding safety net and school feeding, and behavioural change to mitigate energy costs for the state.

We are grateful to have excellent partners and friends in Bangladesh. The IGC is proud to have worked with the Planning Commission in contributing to the eighth five-year plan. We are currently working with the Ministry of Power, Energy and Mineral Resources, Bangladesh Investment Development Authority, and Local Government Division, among others to develop research and provide evidence-based policy insights. Based at the BRAC Institute of Governance and Development (BIGD), IGC has also partnered with BRAC in research on the effectiveness of its ultra-poor programmes. More recently, we have also collaborated with Policy Exchange, CPD, PRI, and RAPID to respond quickly to on-the-ground changes and conduct informed outreach to relevant policymakers.

We are now concluding our work for the Foreign, Commonwealth, and Development Office (FCDO)-funded Transformative Economic Policy Programme (TEPP). Under TEPP, we have focused on the issue of workplace environment and job quality, specifically in the ready-made garment (RMG) industry. We have also worked on domestic resource mobilisation through direct taxation, sustainable urbanisation, innovations in electrification, and other related green growth issues.

As Bangladesh moves towards its vision of Smart Bangladesh, the IGC intends to continue and deepen our engagement with the government in supporting this vision. In recent years, we have prioritised research on solid waste management, alternative modes of renewable energy, air pollution in urban areas, transportation, and others relevant to Bangladesh’s next step in its development journey. Evidence-based policymaking is imperative to maximising potential and reducing mistakes. At IGC, we are committed to generating evidence on economic development and sustainable policy issues for Bangladesh and engaging with the government so that the findings from research can be effectively implemented and translated into real change for Bangladeshi people. This leaflet showcases some of the insights and impact of our previous work, and how we are gearing up for the future.
Workers at a garment factory during a government-imposed lockdown as a preventative measure against the spread of COVID-19. Photo by Munir Uz Zaman/AFP via Getty Images.
How empowered women can lead the ready-made garment industry.

The growth in Bangladesh’s RMG industry and GDP has been significantly fuelled by women. At its height, almost 80% of the RMG workforce comprised women. In turn, these new employment opportunities, improved school participation of girls, delayed the age of marriage for women, and reduced family sizes. But now, women make up less than half the workforce in the RMG sector. What is behind this decline in their participation? Can promotion to managerial roles get them to stay?

An IGC study explores the potential for women supervisors and how gender cross-cuts with productivity in the RMG sector. A representative pool of 96 woven/light knit factories participated by providing training in line supervision to experienced sewing machine operators. The Gender Equality and Returns programme (GEAR) was designed and implemented in partnership with the ILO and IFC. The six-week intensive training course focussed on production planning, quality control, and leadership/social compliance. Operators were tested and surveyed before and after receiving the training. This was paired with a management simulation to gauge the relative effectiveness of male and female trainees as supervisors.

Training improved retention among both male and female operators. Although, 10 months after the training, male operators were 10% more likely to continue working in the factory. The researchers find that this may be due to the fewer chances female trainees got to trial or be promoted to supervisor. After 10 months of training, 92% of male trainees trialled as a supervisor while only 75% of female trainees got that opportunity; 88% of the male trainees were promoted to supervisor but only 53% of female trainees were. Still, the training induced an average factory to promote approximately two women to the roles of supervisor. The simulation, however, revealed that female trainees as supervisors were more effective and performed best when leading a team of female operators. Yet, a bias lingered - more operators found male trainees more able to answer questions and motivate, even though female trainees had produced better outcomes.

By September 2022, GEAR had trained over 700 female operators in 80 factories with over 289,000 workers — nearly 6.7% of the industry’s workforce in Bangladesh. Already, the number of female supervisors has doubled — up from 6% to 12%. This is a big step. When factories were enrolled in GEAR, about 25% of factories enrolling did not have a single female supervisor. Today, on average, nearly 60% of the trainees are promoted to the level of supervisor within weeks of completing the programme.
How flexibility in microcredit can improve business and loan performance.

Despite doubts surrounding the efficacy of microfinance in alleviating poverty, the institutionalisation of sources of microcredit has been helpful to poor households. While the take-up of loans continues to increase across Bangladesh, there has also been a steady upward trend in non-performing loans, from 2.33% in 2016 to 4.77% in 2021. What explains the steady rise of bad loans? Can introducing flexibility in loan repayment improve both loan recovery and borrowers' business health?

IGC researchers partnered with BRAC to investigate how differently new and more flexible loan products affect borrowers and lenders.
Over three years, 3,500 small and medium enterprises participated in a new loan scheme. Since small businesses take a while to generate revenue, these new loans are flexible and relieve them from the burden of making immediate loan repayments. This allows them to channel financial resources to riskier activities with more revenue-generating potential. Some eligible borrowers were offered the new loan product while a promotional campaign for the new loan product targeted ineligible and non-borrowers. Multiple surveys were conducted to study the repayment behaviour of borrowers.

The majority of the eligible borrowers who signed up for the flexible loan product were less risk averse, had higher labour productivity, and had more schooling. Even though profits did not improve significantly, the flexible loan borrowers mobilised more investment than those who did not take up the loan. Additionally, their household’s socioeconomic status also improved. Flexible loan products were also particularly likely to attract entrepreneurs with highly productive businesses, who want to diversify and expand their business activities by starting up additional new businesses. Finally, it showed that BRAC as a lender experienced significantly reduced default rates and high client retention. The scheme benefited both borrowers and lenders.

Research insights from this study convinced BRAC to introduce a new flexible loan contract under its Seasonal Loan scheme. Ultra-poor beneficiaries also received a flexible loan contract after this study. BRAC was particularly interested in the study’s ‘loan vouchers’ component. These vouchers provided borrowers with a two-month extension if they faced genuine constraints to repay. Currently, BRAC Seasonal Loans are available through 74 branches covering 24 regions of Bangladesh.
How the private sector can improve labour law compliance.

Bangladesh’s low labour cost has been its competitive advantage and reason for inclusion in global supply chains. In 2013, the Rana Plaza tragedy drew attention to the limited labour and environmental regulations and its disastrous consequences. The tragedy did not only incur a high human cost but also caused a dent in Bangladesh’s international reputation. How can regulations be enforced amidst constrained capacity? Can corporate social responsibility (CSR) programmes of multinational companies play a role in enforcing compliance?

IGC researchers partnered with the Alliance for Bangladesh Workers Safety (the Alliance) to evaluate the effectiveness of its enforcement of local labour laws that require worker-manager safety committees (SCs) in RMG factories. The enforcement intervention lasted six months and included capacity building for members of the SCs on health and safety, and management. The study involved 84 factories with 41 participating in the programme immediately and the remaining 43 joining 11 months after. This approach enabled the researchers to evaluate what would have happened in the absence of the enforcement intervention.

When multinational companies share the responsibility to enforce SC law, compliance improves significantly. Factories that were in the enforcement intervention from the beginning were far more likely to fulfil their legal requirements such as conducting risk assessments. Factories with better managers perform better in the enforcement intervention and make their factories more compliant with the SC law. However, it negatively affects self-reported job satisfaction, especially in poorly-managed factories, but it fades over time.

The Alliance applied knowledge gained from the study to improve its safety committee enforcement programme. After the researchers personally shared the study results with both the Alliance and its member companies, several businesses indicated that these insights had an impact on their own policies and supplier programming. Partly as a reaction to the observation that the programme’s effects were more pronounced in well-managed factories, the Alliance initiated a training programme aimed at enhancing the safety management skills of middle managers. These practices have been carried forward by the successor organisation to the Alliance, Nirapon.
How improved cookstoves can save lives and the environment.

Access to clean cooking solutions can save lives and the environment. Despite improvements in clean cooking fuels and technologies, and awareness about the hazards of indoor air pollution, only 19% of Bangladesh’s population had access to clean cooking in 2020. What impedes the take-up of clean cooking solutions such as ‘improved cookstoves’? Can how they are promoted make a difference?

An IGC study investigated the different qualities individuals prefer in ‘improved cookstoves’ and how they can be leveraged for better uptake. A series of interventions were trialled in rural Bangladesh to
promote the adoption of ‘improved cookstoves’ – providing subsidies, health benefits information, targeting women for promotion, and leveraging social networks to encourage the adoption of cookstoves – to see what works. Study households were offered a chimney stove (that reduces indoor air pollution and has health benefits) and an efficient combustion stove (that decreases fuel combustion and has budgetary benefits). These choices and how they were offered (free or chargeable, to men or to women in the household, together or separately) enabled analysis of a range of behaviours and intra-household dynamics that could be underpinning the low uptake of ‘improved cookstoves’.

Women prioritised health benefits, preferring the chimney stove, while men valued budgetary benefits in their choices. Further, the more chance women had of knowing their husband’s choice, the more likely they were to align their choices with that of their husbands. Women also had less say in the financial decision-making and could not act on their choice when a price was charged.

Intra-household dynamics and differences in preferences must be factored in while marketing clean cooking solutions. This study, among others, led to a nationwide rollout of improved cookstoves. Cookstoves sold through the programme saved 375 takas per month in fuel costs while also reducing carbon and particulate emissions. This meant the cookstoves met the preferences of men and women simultaneously. Unsurprisingly, this programme was successful in distributing 1.8 million cookstoves in five years. This lesson should be incorporated into all similar programmes as the country gears up to achieve 100% coverage of improved cookstoves by 2030.
How individual and peer information can motivate households to conserve energy.

Most, if not all, low-income countries are dependent on fossil fuel imports for energy. With few to no natural deposits of fossil fuel, financing fossil fuel for electricity production amidst the uncertainties of the foreign currency market can expose economies to supply-side shocks. As back-to-back electricity-price hikes shocked consumers from late 2022 to the first quarter of 2023, Bangladesh struggled to produce electricity to meet demand during peak hours amid a foreign exchange crisis. Are there inexpensive interventions which could influence households to change their electricity consumption?

Dhaka at night. An IGC study checked the effectiveness of social norms and information in influencing households’ electricity consumption. Photo by K M Asad/LightRocket via Getty Images.
An innovative IGC study checks the effectiveness of social norms and information in influencing households’ electricity consumption. Over eight months, 2,394 well-off, urban households in Dhaka, Khulna, and Jessore were selectively provided information about (1) their monthly electricity (2) ways to save energy (3) the median electricity consumption of their suburb (4) the median electricity usage of their neighbours. Giving different combinations of all this information to households enabled the researchers to estimate by how much households changed their electricity consumption when made aware of the energy consumption of those living nearby, as opposed to simply being provided with tips on saving energy.

Households with high energy consumption were initially not reactive to information about their relative energy inefficiency. However, after repeated reminders, they were quick to cut their energy consumption before the next billing cycle. The reduction in electricity consumption also gets larger over time – there is reduction of 8% after two months, followed by reduction of 11% after four months and a further reduction of 14% after seven months. Simple and inexpensive behavioural tools like reminders and social group comparisons can be effective in managing energy efficiency in urban middle-class households.

The research-policy insights from this study become even more relevant in today’s international market volatility in oil and gas, which can create electricity shortages in Bangladesh. They were shared with the Ministry of Power, Energy, and Mineral Resources, and its sustainable and renewable energy policy arm, SREDA. In another recently completed study, done in partnership with Dhaka Electricity Supply Company (DESCO), IGC researchers investigated the efficacy of encouraging households to conserve energy through text messages and found that similar behavioural nudges reduced energy consumption by about 5%.
How tax compliance can be improved through social recognition.

Tax revenue is crucial for governments to efficiently deliver public goods and services, including electricity. Yet, in the mere first five months of 2023, the power supply in Bangladesh had to be cut for 114 days. With one of the lowest tax-to-GDP ratios, 7.6% in 2021, Bangladesh needs to improve its tax revenue and compliance so that it can invest in improving its infrastructure and sustain its growth. Can firms that suffer productivity losses during power cuts be made to comply better to raise tax revenues? Are they more likely to pay their taxes when they know other firms are paying their taxes as well?

IGC researchers partnered with the Bangladesh National Board of Revenue (NBR) to test a range of approaches that leverage firms’ interest in social incentives and peer recognition to enhance their tax compliance. In this eight-pronged study, 23,034 firms were divided into clusters and provided a mix of information relating to their tax filing and payment rates, their eligibility for a gold, silver, or bronze recognition card based on their tax compliance and that of their cluster, and whether information about the firm paying their taxes would be shared with other firms in the cluster. This enables the researchers to gather the firms’ responses to general reminders, recognition, and personal standing among peer firms.

The study shows how revealing information about the tax compliance of firms to their peers can improve overall tax compliance and treatment. For this study, the researchers divided the clusters into low and high compliance. They found that firms in high compliance clusters are likely to pay taxes by a further 3.4 percentage points when they get to know that other firms in their cluster are also highly tax compliant. This effect is especially stronger for firms that did not pay taxes in the previous year, and they were 6 percentage points more likely to pay during the year of the study. Additionally, these firms that were receiving the peer information, paid 17% more on average compared to the payments made by other firms in the study and were responsible for a 66% increase, almost equivalent to 870,000 takes in the tax revenue collected.

IGC’s lead academic, Prof. Mushfiq Mobarak hosted a seminar on the study which was attended by the Chairman of NBR and the Ministers of State from the Ministry of Planning and Ministry of Finance, among several other senior policymakers and members of the business community. Social incentives can play a key role in mobilising revenues. Recognition of tax-complying firms publicly may also steer customers to tax-compliant businesses and provide further motivation to firms to register, broadening the tax base and improving tax compliance.
How seasonal migration can protect households during the lean season.

Almost 70% of Bangladeshis rely on agriculture for their livelihood. The incomes from agriculture are not steady and take a sharp hit during the pre-harvest ‘lean’ season or *monga*. Estimates suggest that during this period of annual famine, incomes decrease by 50-60% and food expenditure shrinks by 10-25%. While NGOs and governments have versions of cash-for-work programmes, they only temporarily smooth consumption and are not a long-term solution. Can seasonal migration from famine-struck rural to nearby prosperous urban areas protect households during the lean season? What would it take?
An IGC study analyses the effectiveness of various incentives in encouraging people in rural, famine-struck areas to migrate to nearby urban areas which have better employment opportunities. Households in 100 villages were provided small grants and loan incentives of 450-600 takas to buy the travel ticket to send one member to the nearby city to seek employment when there was less work available in the village during the pre-harvest season of September-November.

The villages where the cash/credit incentive to migrate was provided saw an increase in migration rate to 57%. The families of the migrants were able to increase food expenditure by 30-35% and the caloric intake per person per day increased by 700 calories during the lean season. These villages that received the incentive to migrate during the off-season continued to show higher rates of migration, up to 47%, even after the incentive was removed.

After comprehensive, multi-stage research showed positive impacts on migration, household income, and consumption, the programme was introduced and evaluated at a large scale for the first time in 2017. The performance assessment presented a complex picture: the reach of the programme grew significantly, yet it encountered operational difficulties and a lower-than-anticipated participation rate. A subsequent large-scale randomised controlled trial (RCT) revealed that the programme did not successfully stimulate migration as intended, resulting in no significant increase in income or consumption. Researchers attributed these outcomes primarily to issues related to the programme’s implementation, specifically, delivery bottlenecks and inaccurate targeting. In response, modifications have been made to the programme’s design to alleviate these delivery constraints and refine targeting. The programme is currently on hold pending the disclosure of additional results.
**How infrastructure can improve wellbeing.**

Infrastructural development is imperative for facilitating growth. Yet, there are questions surrounding large investments in infrastructure and the ability of these investments to pay for themselves by driving economic activity. The Jamuna Multipurpose Bridge (JMB) is possibly the first megastructure of Bangladesh. Since then, the country has invested considerably in other economic infrastructures such as telecommunications, roads, irrigation, and electricity. Did this bridge improve local employment and livelihood? Who benefits the most from such new economic infrastructure?

This IGC study focused on regions which benefitted from better connectivity because of the bridge, particularly Dhaka. The researchers use data from Sirajganj - a district located on the west of the Jamuna River. Construction of the bridge meant residents of Sirajganj saw a drastic reduction in transportation time from Dhaka. The study used data from BRAC-RED to compare the status of the residents before and 10 years after the construction of the bridge. The authors also used data from Tangail - a district adjacent to Sirajganj but located on the east of the river. This enabled the researchers to do a robust comparison because these two districts are characteristically similar, but Sirajganj benefitted a lot from the bridge while Tangail did not see much significant change.

The study revealed that the bridge expanded employment opportunities by around 4% for the residents of Sirajganj. Importantly, the bridge did not affect everyone similarly. For example, the occupational transition was seen across the board but educated farm workers shifted more towards business, trading, and formal jobs while uneducated workers shifted more towards daily labour activities. Additionally, this occupational transition was more prevalent among the youth (age 21-30). Women aged 31-50 saw a 20% decrease in unemployment. However, women did not see occupational transition as much as young men. The schooling effect of the bridge was concentrated mostly among the educated male. Overall, Jamuna Bridge had induced positive change in employment for almost everyone, but different groups saw different kinds of benefits with educated male youth being the biggest winners.

Almost 10 years have passed since the study was completed but it remains highly relevant to policymaking in Bangladesh. It confirms the common perception that large economic structures do bring benefits if they are well-chosen and designed. However, an important policy lesson from this study is that not everyone benefits equally from such projects. Young men see the most benefit while benefits enjoyed by other groups such as women and the elderly are less pronounced.
Design of such projects in the future should consider such varied distributive impacts and adopt programmes which would enable the vulnerable and marginal groups to enjoy the fruits of these big investments.

An aerial view of Kalabogi village, which faces frequent cyclones and floods since the late 1990s. Photo by Kazi Salahuddin/NurPhoto via Getty Images.
Challenges and strategies for a resilient Bangladesh

Bangladesh, benefiting from a considerable demographic dividend and powered by remittance inflows and RMG exports, stands at the intersection of opportunities and challenges. Notwithstanding an impressive poverty reduction, from 41.9% in 1991 to 10.5% in 2021, it grapples with macroeconomic concerns including mounting inflation, energy deficits, and a balance-of-payments deficit.

A pressing issue is job creation, with youth unemployment at 13% in 2023. Harnessing the demographic dividend demands fostering an ecosystem conducive to entrepreneurship, encouraging private sector vitality, and bolstering skills development. Additionally, export diversification beyond the RMG sector through strategic investments in burgeoning sectors like information technology and agro-processing is vital to stimulate job creation.

As one of the world’s most climate-vulnerable countries, Bangladesh confronts severe climate change impacts, costing an estimated 2% of GDP annually. Urgently needed are climate adaptation and mitigation measures, a pivot to green growth, investments in renewable energy, and promotion of climate-smart agriculture. Concurrently, addressing climate-induced migration and managing sustainable urbanisation, with the urban populace expected to soar to 86.5 million by 2030, are pivotal. Urban planning needs to be evidence-based, promoting sustainable and inclusive growth.

The implementation of these policies necessitates resources, predominantly domestically raised. However, domestic revenue mobilisation languishes at 7.6% of GDP, underscoring the need for strengthening tax administration, broadening the tax base, and enhancing compliance to spur government revenues and facilitate public investment.

Critical to tackling these challenges is evidence-based policymaking. This approach, grounded in rigorous data, systematic analysis, and policy evaluation, is the linchpin of effective and sustainable solutions. Economic research serves as the bedrock of evidence-based policymaking, offering indispensable insights for present challenges and future uncertainties. Ultimately, embracing evidence-based policymaking will be decisive in navigating these complex challenges, and guiding Bangladesh towards a future of resilience, sustainability, and inclusivity.
**Selected references**


