

**EXECUTIVE  
BOARD  
MEETING**

SM/16/3

January 6, 2016

To: Members of the Executive Board

From: The Secretary

Subject: **Bangladesh—Selected Issues**

Board Action:	Provides background to SM/16/2—Staff Report on the 2015 Article IV Consultation
Tentative Board Date:	<b>Wednesday, January 20, 2016</b>
Publication:	Not yet decided*
Questions:	Mr. Cubero, APD (ext. 36005)
Document Transmittal in the Absence of an Objection and in accordance with Board policy:	Thursday, January 14, 2016—WTO After Board Consideration—Asian Development Bank, European Investment Bank, Food and Agriculture Organization, Islamic Development Bank, United Nations Development Programme, World Food Programme

**\*At the time of circulation of this paper to the Board, the authorities have indicated that they need more time to consider whether they will consent to the Fund's publication of this paper. Publication will only proceed upon the receipt by the Fund of the member's explicit consent.**





# BANGLADESH

## SELECTED ISSUES

January 5, 2016

Approved By  
**Asia and Pacific Department**

Prepared By Rodrigo Cubero, Jayendu De, Souvik  
Gupta, and Stella Kaendera (all APD)

## CONTENTS

<b>BANGLADESH: BANK LENDING RATES—SOME PRELIMINARY THOUGHTS</b>	<b>2</b>
References	8
<b>BANGLADESH: MITIGATING AND ADAPTING TO CLIMATE CHANGE</b>	<b>9</b>
A. Introduction	9
B. Bangladesh's vulnerability to climate change: An Overview	9
C. Current Initiatives and Financing Arrangements	10
D. Policy considerations	13
E. Conclusion	15
<b>TABLES</b>	
1. Bangladesh: Budget Allocation for BCCTF	11
2. Contribution of Development Partners to BCCRF	12
3. Projects financed under the Strategic Program for Climate Resilience (SPCR)	12
4. Bangladesh: List of Green Products under BB Refinance Schemes	16
References	17
<b>FINANCIAL INCLUSION IN BANGLADESH</b>	<b>19</b>
<b>BOXES</b>	
1. Microcredit in Bangladesh	20
2. Bangladesh: Taka 10 accounts	21
<b>FIGURES</b>	
FI Indicators Weighted by Population	25
References	26

## BANGLADESH: BANK LENDING RATES—SOME PRELIMINARY THOUGHTS<sup>1</sup>

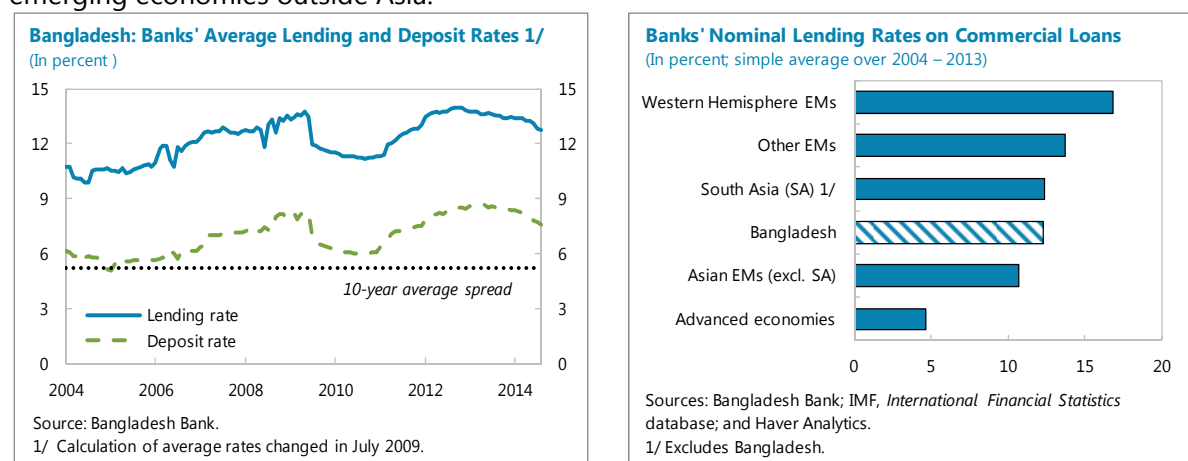
*Average bank lending rates and interest rate spreads in Bangladesh are not high by international standards. Though interest rates have declined there is scope for bringing them down further through a mix of prudent policies, improved bank governance, and a more efficient credit market.*

1. There is a widespread perception in Bangladesh that lending rates and spreads are very high. This note provides some preliminary thoughts on the subject, using a cross-country perspective. The analysis is indicative, and will need to be complemented by a detailed statistical examination of the data.

### How have Bangladesh's interest rates evolved and how do they compare to those of other countries?

2. In Bangladesh, the average nominal lending rate for commercial loans by banks has fluctuated between about 11 and 14 percent over the past ten years.<sup>2</sup> More recently, as inflation and the demand for loans have fallen, lending rates have also declined.

3. When looking at it from a broad cross-country perspective, Bangladesh's average nominal lending rate over the past decade was clearly higher than for advanced economies and slightly higher than for Asian emerging economies.<sup>3</sup> However, it was broadly in line with the global and South Asia averages, and significantly lower than the average lending rates for emerging economies outside Asia.



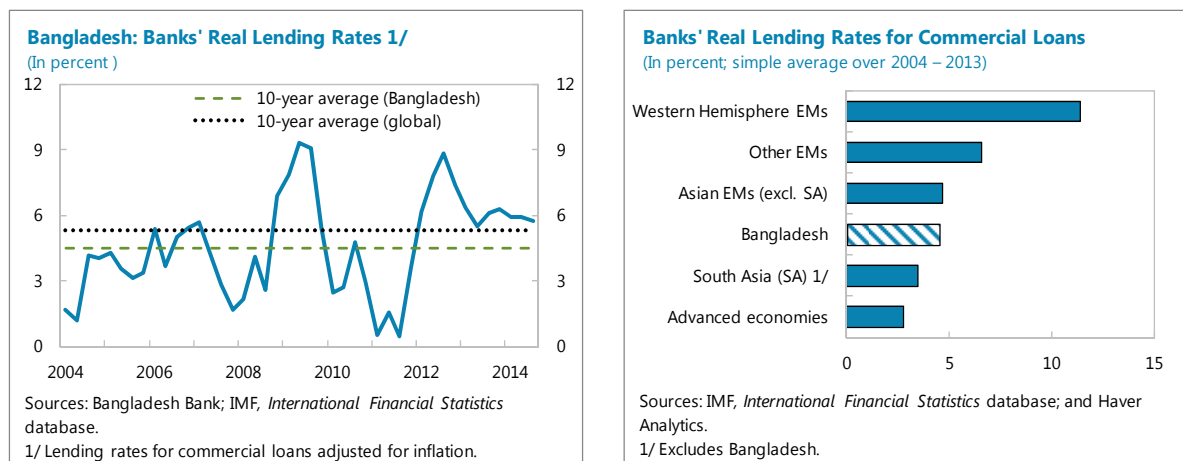
<sup>1</sup> Prepared by Souvik Gupta.

<sup>2</sup> This note uses the weighted average of lending rates for Bangladesh's commercial banking system as a whole, as published by Bangladesh Bank. Lending rates, however, vary by banks, and within banks, by type of loans and type of borrowers. For example, in August 2015, average lending rates across banks ranged between 8¼ percent and 15 percent. But, for the banking system as a whole, the average lending rate was 11½ percent.

<sup>3</sup> When comparing interest rates across countries, it is better to take the average interest rates over a relatively long period of time, so that temporary fluctuations do not distort the analysis. In this note, we base most comparisons on 10-year averages.

## Adjusting for inflation

4. Nominal interest rates tend to move up and down with actual and expected inflation. When considering the magnitude of interest rates over time and across countries, it is preferable to focus on real interest rates; that is, nominal rates adjusted for the expected inflation rate (roughly, the real rate can be approximated by taking the nominal interest rate minus inflation). While Bangladesh's real lending rate has been fluctuating significantly in the past decade, its 10-year average has been lower than the global average, and much lower than the average for emerging markets economies. However, it has been higher than the average for other countries in South Asia and for advanced economies.



## What drives lending rates in Bangladesh?

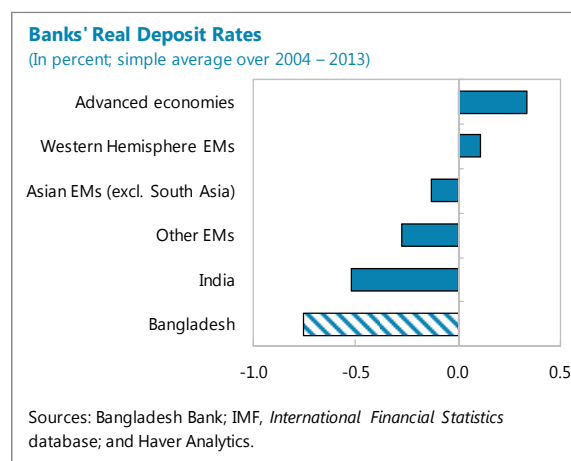
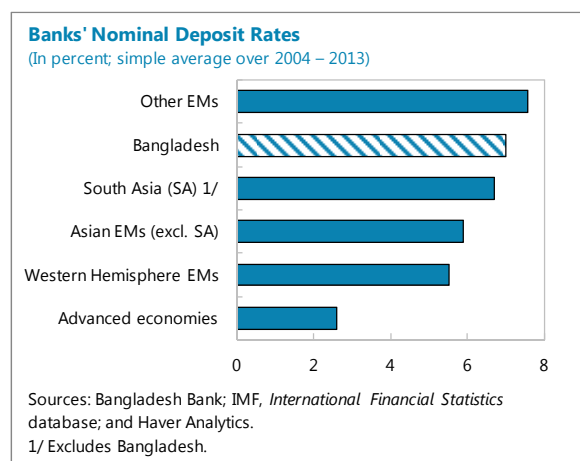
5. For the purposes of understanding the determinants of banks' lending rates, it is useful to break down lending rates into two components: (i) banks' cost of funds; and (ii) the mark-up (or spread) over the cost of funds.

### A. The cost of funds

6. Banks in Bangladesh rely mainly on deposits for their funding: deposits accounted for 85 percent of banks' liabilities as of end-2013.<sup>4</sup> Therefore, deposit rates are by far the main determinant of banks' cost of funding. Bank deposit rates in Bangladesh have averaged about 7 percent over the past decade. However, average real deposit rates in Bangladesh have been lower than for most comparator country groups. In fact, they have been negative on average (that is, nominal deposit rates have been lower than inflation on average).

7. This suggests two conclusions. First, real deposit rates have not been a factor pushing up real lending rates in Bangladesh. Second, relatively high inflation has been a contributing factor driving up the nominal deposit rate.

<sup>4</sup> Bangladesh Bank (2015).



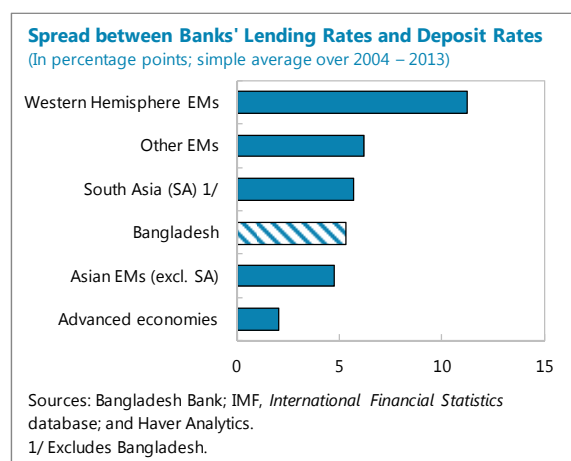
8. Notwithstanding their relatively low level, a factor that may have contributed to push up real deposit rates is the administered interest rates on the national savings instruments (NSC). Because these instruments compete with bank deposits as savers look for attractive investment options, their rates also influence deposit rates. A comparison over the past decade reveals that NSCs in domestic currencies and maturing in less than one year offered about 4 percentage points higher interest rates on average than the average deposit rate. A widening of this wedge in FY14 and FY15 resulted in a large subscription of NSCs.<sup>5</sup>

### B. The interest rate (or bank intermediation) spread

9. The spread between lending and deposit rates has remained relatively stable in Bangladesh, at around 5 percentage points. This spread is lower than averages for most emerging economies, but significantly higher than for advanced economies.

*What drives interest spreads?*

10. The spread between deposit and lending rates can be broken down into two main components: banks' **operating costs** (for instance, administrative and personnel expenses) and **the returns on banks' assets** (net interest and non-interest income after loan loss provisions).<sup>6</sup>

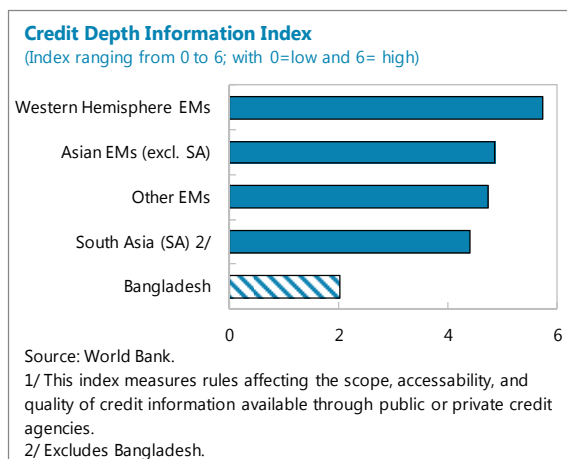
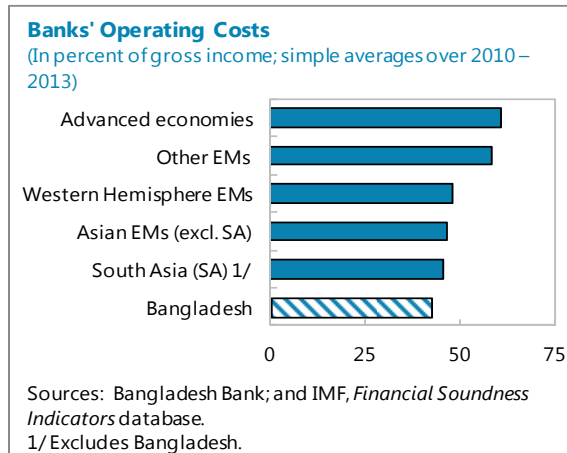


<sup>5</sup> Interest rates on NSCs were cut by 1½–2 percentage points in May 2015, but they still remain significantly above bank deposit rates.

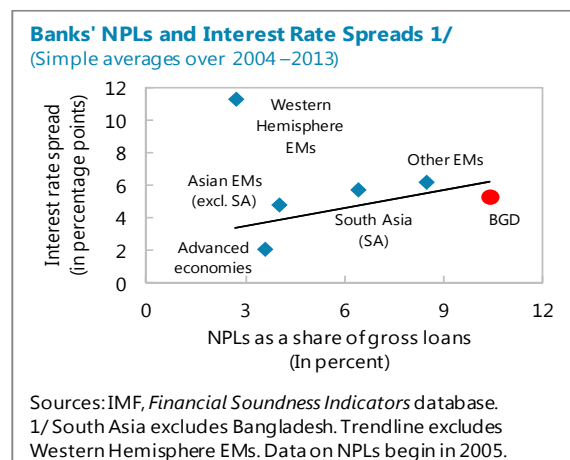
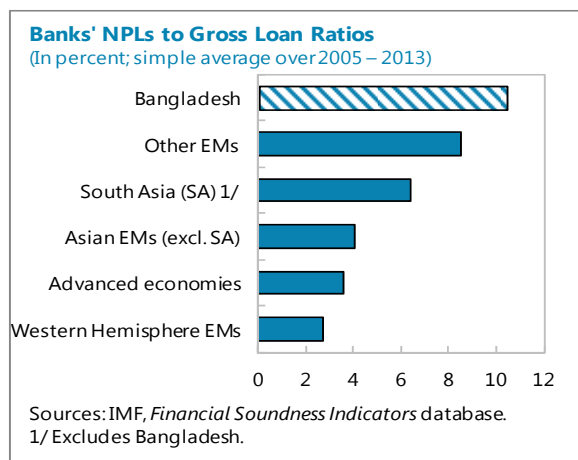
<sup>6</sup> For details, see Randall R. (1998).

**11.** The operating costs of Bangladesh banks appear to be lower on average than those of banks in other countries, at least when expressed as a share of gross income. These are therefore unlikely to be driving up interest rate spreads in Bangladesh when compared to other countries. Rather, the causes for relatively high interest rate spreads in Bangladesh are likely to lie among the factors driving banks' return on assets and provisions for loan losses. Such factors include: macroeconomic (economic growth, inflation) and sector- or industry-specific conditions and outlook, all of which affect borrowers' demand for credit and their ability to service the loans; reserve requirements or the cash reserve ratio (CRR), which affects the return on total assets as the fraction of assets deposited by banks at the central bank (known as bank reserves) carry no remuneration; and the institutional structure (for example, credit history information, contract enforceability and the rule of law, and bankruptcy procedures), which affects banks' capacity to identify credit risks and to recover funds from non-performing loans.

**12.** In the case of Bangladesh, banks' returns on assets net of loss provisioning are driven down by very **high nonperforming loans** (NPLs). In particular, NPLs in state-owned banks are extremely high. Thus, Bangladesh's banking-wide NPL ratios stand out when compared to other countries. Poor governance at bank boards, inadequate credit information (a World Bank index puts Bangladesh in the lowest bracket), and inadequate financial statements of borrowers are major factors contributing to poor asset quality. Moreover, lengthy legal procedures involving disputed loans make it very difficult for banks to recover value from nonperforming loans or their collateral, further exacerbating loan losses.



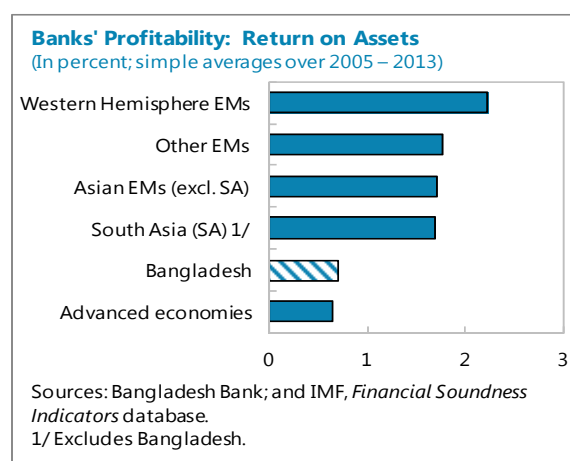
**13.** In sum, high NPLs, low loan recovery ratios, and the correspondingly large provisions for loan losses, are an important driver of interest rate spreads in Bangladesh. It is estimated that halving loan loss provisions from their end-2013 level (through an improvement in asset quality) would help bring down lending rates by 0.4 percentage points.



**14.** Another factor that might have contributed to push up bank interest spreads and lending rates in Bangladesh is the practice of **devolvement** of treasury bills and bonds, by which banks are forced to acquire treasury securities when auctions for these securities are not fully subscribed. Treasury securities pay much lower interest rates than the typical loan in Bangladesh. Devolvement reduces both the fraction of assets that can be loaned at any point in time and the average return on assets, and thus may force banks to increase lending rates in an effort to increase returns on assets.<sup>7</sup>

**15.** Finally, **inflation** erodes the real value of the returns on assets. Therefore, it may also force banks to increase lending rates and spreads to compensate.<sup>8</sup>

**16.** As a result of all these factors, bank profitability in Bangladesh – for instance as measured by the pre-tax return on assets after provisioning for loan losses is one of the lowest in the world.



<sup>7</sup> Banks' holdings of treasury securities have increased from below 15 percent of deposits in early 2011 to about 21 percent of deposits in August 2105.

<sup>8</sup> Mujeri and Yonus (2009) used statistical techniques to explain the determinants of interest rate spreads across bank types in Bangladesh. Using data for 48 banks for the period of 2004 – 09, they find that inflation, operating costs, nonperforming loans, noninterest income, market share of deposits, and regulatory requirements affect interest rate spreads. However, the impact of these factors differs across bank groups.

## Conclusions and policy implications

**17.** Bangladesh's average nominal and real lending rates, and banks' interest spreads, are not exceptionally high by international standards. However, both lending rates and spreads are much higher than those for advanced economies, indicating that there is scope for bringing them down. The above cross-country analysis suggests that the main drivers of lending rates and interest rate spreads in Bangladesh are inflation, low credit quality (high NPLs), low recovery ratios for bad loans, and the practice of devolvement.

**18.** From this, several policy priorities can be drawn to help bring down lending rates and spreads in Bangladesh:

- Reduce inflation on a sustained basis through prudent monetary and fiscal policies.
- Strengthen bank governance, particularly in the state-owned banks, to help improve asset quality. The very high stock of nonperforming loans in state-owned banks is a cause for concern. Improvements in bank governance could also help strengthen management practices and reduce operating costs.
- Improve credit information sharing (for instance, through economy-wide credit bureaus) to help banks better assess borrowers' creditworthiness.
- Improve contract enforceability and judicial proceedings for loan collections, foreclosures and the recovery of collateral.
- Minimize or eliminate the practice of forced subscription of Treasury bills and bonds, replacing it with a fully-functioning auction-based approach.
- Automate bank branches, particularly at the state-owned banks – a plan for which is currently under implementation – would help reduce operational risks as well as operating costs.

## References

Bangladesh Bank, 2015, *Financial Stability Report 2014*, Bangladesh Bank, Issue 5, June.

Mujeri, M. K. and S. Younus, 2009, "An Analysis of Interest Rate Spread in the Banking Sector in Bangladesh", *The Bangladesh Development Studies*, Vol. XXXII, December 2009, No. 4,

Randall R., 1998, Interest Rate Spreads in the Eastern Caribbean, *IMF Working Paper* No. 98/59 (Washington: International Monetary Fund).

# BANGLADESH: MITIGATING AND ADAPTING TO CLIMATE CHANGE<sup>1</sup>

## A. Introduction

1. **Bangladesh is categorized as one of the world's most vulnerable countries to climate change.** The country's geographic location and topography (including dominance of floodplains and low elevation from the sea), poses significant risks. Additionally, high population density, poverty levels, fragile infrastructure and a dependence by many on agriculture magnify the risks. Vulnerability to tropical cyclones, storm surges, floods, and other climatic hazards is higher in regions which also have higher concentrations of the poor and socially most vulnerable. These groups, including subsistence farmers, the rural landless, the urban poor, fishing communities, women, children, and the elderly, have the lowest capacity to cope with climate-change-induced losses.
2. **Climate change has an impact on economic growth and other key economic objectives.** Potential economic consequences in Bangladesh include productivity changes in agriculture, strains on health and water sectors, altered migration patterns and increased vulnerability to shocks, all these with implications for fiscal and external sustainability.
3. **The government is taking a number of initiatives to address climate change vulnerabilities.** There is an increasing awareness in the government, and among development partners, that climate change could compromise much of the hard-earned economic and social gains in the country.
4. **This note takes stock of Bangladesh's policies and financing arrangements in mitigating and adapting to the impact of climate change and suggests policies to strengthen the fiscal framework.** The note is organized as follows: the first section summarizes existing literature on the expected impact of climate change; the second discusses current initiatives and financing arrangements; the third section discusses policy considerations, and the final section concludes.

## B. Bangladesh's vulnerability to climate change: An Overview

5. **Several indices confirm that Bangladesh is one of the countries with the highest vulnerability to climate change.** The Maplecroft Index (2015) ranks it as the most vulnerable country.<sup>2</sup> Assessing a number of variables to calculate the vulnerability of 170 countries, Maplecroft identified Bangladesh and India as the two countries 'facing the greatest risk to their populations, ecosystems and business environments'. Meanwhile, Germanwatch 2014 ranks

<sup>1</sup> Prepared by Stella Kaendera, Resident Representative.

<sup>2</sup> The Maplecroft Climate Vulnerability Index evaluates the vulnerability of populations to extreme climate-related events and changes in major climate parameters over the next 30 years plus the capacity of the country to adapt to the potential impact of climate change

Bangladesh as fifth most vulnerable country to climate change-induced natural calamities (Germanwatch, 2014). In its report, Germanwatch estimates that, during the period 1993–2012, Bangladesh sustained US\$1.8 billion in damages from a variety of natural disasters.

**6. A significant number of research papers have shed light on climate change’s contribution to increased frequency and severity of disasters in Bangladesh, with adverse impacts on human life** (Huq et al., 1998; Huq et al., 1996; Yu et al., 2010; World Bank, 2000; Ahmed, 2005; Rahman et al., 2010). It is also well documented that vulnerability, capability and resilience are partly a function of gender and social conditions: climate change impacts are far more severe for women, the poor and marginalized groups (Alam et al., 2008; Ahmed et al., 2007). These vulnerabilities, coupled with existing inequalities, might negate the gains in poverty reduction for women and other marginalized groups.

**7. Frequent inland monsoon floods and other disasters tax the Bangladesh economy.** Significant damages to crops, destruction of roads and other infrastructure, disruptions to industry and commerce, and injuries and losses in human lives impose significant costs on the economy. Between 1990 and 2008, the average annual extreme weather event-related losses are estimated at 1.8 percent of GDP (Germanwatch Risk Index, 2010). The 1998 flooding that affected over two-thirds of the country resulted in estimated damages and losses of over US\$2.0 billion, about 4.8 percent of GDP. Moreover, it is forecast that the country will lose 15 percent of land area by 2050 as a result of rising sea levels and coastal erosion, and one in seven people will be displaced by climate change triggering a move to the already densely populated urban centers (IPCC, 2007). At the same time, the population is expected to rise to over 200 million people by 2050 (World Bank, 2011).

**8. Climate change would particularly entail devastating effects on food security given the growing population and poverty levels.** Studies have shown that for vulnerable countries reliant on rain-fed agriculture, yields could be reduced by 50 percent by 2020 (IPCC, 2007). Agriculture is still an important sector of the economy, comprising about 16 percent of the country’s gross domestic product (GDP) but employing around 40 percent of the total labor force. The performance of this sector has an overwhelming impact on economic goals such as employment generation, poverty alleviation, human resource development, and food security.

**9. In addition to climate-induced damages, initiatives to recover from calamities normally require diversion of investments from development.** Both factors tend to decelerate economic growth and the efficiency of public service delivery. It is therefore imperative to prepare and plan for adapting to the effects of climate change through well-articulated strategies with financing arrangements in place.

## C. Current Initiatives and Financing Arrangements

**10. Through a number of initiatives, Bangladesh is placing climate change policies at the center of the country’s development agenda.** The Government introduced the National Adaptation Program of Action (NAPA) in 2005, later updated and renamed the Bangladesh Climate Change Strategy and Action Plan (BCCSAP, 2009), as a guiding and coordinating policy to cope with climate change. There are six thematic groups of focus within the plan but no

detailed costing or prioritization beyond the estimated figure of US\$5 billion over the initial five year period. Implementation of the BCCSAP is facilitated through two climate change funds: the Bangladesh Climate Change Trust Fund (BCCTF) and the Bangladesh Climate Change Resilience Fund (BCCRF). Bangladesh is the first developing country to set up a coordination plan as well as the first to come up with its own climate trust fund. Recognizing these initiatives, in September 2015 Prime Minister Hasina was awarded the Champions of the Earth award at the UN.

**11. The BCCTF is financed through Bangladesh's own budgetary resources.** Its oversight is guided by the Climate Change Trust Act 2010. A Committee comprised of representatives from line ministries and nongovernmental organizations (NGO's) with an interest in climate change screens and recommends to a Board of Trustees projects for financing by the BCCCTF. From FY10 to FY14, US\$360 million has been allocated to BCCTF.

<b>Table 1. Bangladesh: Budget Allocation for BCCTF</b>			
Fiscal year 1/	Amount (billions of taka)	Total Budget expenditure (billions of taka)	Percent of total expenditure
FY10	7.0	1,138	0.6
FY11	7.0	1,322	0.5
FY12	7.0	1,636	0.4
FY13	4.0	1,917	0.2
FY14	2.0	2,225	0.1
Total	27.0		
Source: Bangladesh authorities. 1/ Fiscal year begins July 1.			

**12. The Bangladesh Climate Change Resilience Fund (BCCRF) was established in May 2010 as a vehicle for development partners to support Bangladesh in implementing the BCCSAP.** So far, about US\$200 million has been disbursed from donor countries such as the UK, Sweden, Australia, Denmark and others—a small fraction of the government's indicated requirement of US\$5 billion between 2010 and 2015. Through the fund, donors are also supporting NGOs in the implementation of community-based adaptation, enhancing local innovation and the capacity of vulnerable people and local government institutions.

**Table 2. Contribution of Development Partners to BCCRF**  
(In millions of U.S. dollars)

Donor	Contribution
United Kingdom	96.9
EU	37.6
Sweden	19.3
USAID	13.0
Switzerland	12.5
AusAid	7.1
Denmark	1.8
<b>Total</b>	<b>188.2</b>

**13. Bangladesh is also a beneficiary of the Pilot Program for Climate Resilience (PPCR), a disbursing arm of the Climate Investment Fund.<sup>3</sup>** The PPCR, designed under government leadership in coordination with the Asian Development Bank (AsDB), the World Bank Group, and other stakeholders, focuses on improving climate resilience in agriculture and food security, strengthening the security and reliability of fresh water supply, sanitation, and infrastructure, and enhancing the resilience of coastal communities and infrastructure. In addition, the program supports technical assistance for Bangladesh to better assess and address impacts of climate change. Under the program, a total of US\$110 million (45 percent in grants, the rest in near-zero interest credits) was approved for Bangladesh in 2010.

**Table 3. Projects financed under the Strategic Program for Climate Resilience (SPCR)**

Programme	Expected Key Results
1. Promoting climate resilient agriculture and food security	Agricultural products and practices that are adapted to the changing agro climatic conditions of the coastal zones ensuring food security and livelihoods for the most vulnerable ones
2. Coastal embankments improvement and afforestation	Strengthened coastal embankments to withstand daily, seasonal and erratic climate induced disasters including floods and cyclonic storms
3. Coastal climate resilient water supply, sanitation, and infrastructure improvement	Improved water supply and sanitation systems that are resilient to climate change impacts. Reduced poverty and higher incomes in the coastal districts by sustained year round access to social services through construction and rehabilitation of all-weather access roads that can withstand severe flooding
4. Climate change capacity building and Knowledge management	Equip Ministry of Environment and Forests with knowledge and resources to foster climate resilient planning
5. Feasibility study for a pilot programme of climate resilient housing in the coastal region	Requisite information base for making housing more storm/cyclone proof and affordable

<sup>3</sup> Developing countries require an estimated US\$100 billion per year in climate finance. The Climate Investment Fund (CIF, 2008) administered by the World Bank, is one donor commitment designed to assist developing countries to pilot low emission and climate resilient development approaches through the Multilateral Development Banks (MDBs). CIF financing is disbursed through two different multi donor trust funds—the Clean Technology Fund (CTF) and the Strategic Climate Fund (SCF)

**14. Promoting clean and renewable energy is another priority of the government.**

Bangladesh currently hosts one of the world's largest solar home energy systems, covering 10 percent of the off-grid population. In 2009 Bangladesh Bank (BB) introduced a revolving refinancing scheme for banks, with US\$26 million for financing six green projects, including solar power, bio-gas, and effluent treatment plants. The scheme was restructured in 2013 and now includes a wide range of products (see Table 4). BB introduced another US\$50 million refinancing window in 2012 with support from the Asian Development Bank for projects to improve brick kiln efficiency and reduce carbon and other greenhouse emissions.

**15. On a broader scale, climate financing is delivered as routine sector programs under the budget rather than part of a climate strategy.**

Within the Government, as many as 37 ministries/ divisions and other agencies have climate-related activities with an estimated spending of about US\$1 billion annually, representing 6–7 percent of the annual budget and roughly 1.1 percent of GDP. Only 25 percent of this comes from foreign resources. In addition, the government is implementing a wide range of measures to help citizens prepare for the unpredictability of climate change. These include new health services dealing with waterborne diseases linked to increased flooding, training community groups about early warning systems, and promoting climate-friendly agricultural technologies.

## **D. Policy considerations**

**16. Despite the initiatives discussed above, significant policy challenges remain.** The lack of comprehensive costing and prioritization of long-term needs, as well as insufficient resources and capacity and coordination among the facilities and agencies remain major challenges.

**17. The government needs to mobilize more resources for climate change adaptation and mitigation.** Available information shows that government transfers to the BCCTF are declining. At the same time, expected donor flows to the BCCRF have not materialized. In the absence of donor financing, the government needs to reposition itself to provide more resources for climate change. In addition to impacting on public finances, climate change calls for deploying fiscal instruments to mitigate its extent and adapt to its remaining effects. Tax and spending instruments plus enhanced public financial management play a key role in responding to climate change.

**18. Fiscal policy plays a key role in addressing challenges from climate change:**

- **Taxation:** Tax policy can induce firms and households to adopt environmentally-friendly capital investments and practices. Tax reform could focus on restructuring the tax system away from taxes that are likely to be most harmful for efficiency and growth, and towards carefully designed taxes that promote an environmentally-sustainable growth strategy. For instance, Bangladesh has been exploring introducing a specific carbon tax, on a trial basis, on higher greenhouse emitting vehicles. Receipts from carbon taxes could enable a reduction in other distortionary taxes as well as strengthening revenue mobilization. While earmarking revenues from carbon taxing is generally not recommended, as it constrains public finances, tying the

proceeds to specific spending programs could be considered if it makes carbon taxes politically acceptable.

- **Energy pricing reform:** More subsidy reform is warranted, particularly with regard to getting prices right in energy and transportation systems to reflect market and environmental costs. Subsidies tend to encourage over-consumption and inefficient use of energy. Investment decisions may also be altered by changes in relative prices, thereby discouraging energy diversification and creating disincentives for building necessary energy infrastructure. The under-pricing of natural gas for producers, for instance, discourages exploration and domestic production, shifting energy away towards dirtier sources. Similarly, subsidies for dirty energy discourage initiatives aiming to expand green energy alternatives such as solar power. The initial heavy investment needed makes these energy sources relatively more expensive.
- **Targeting of social safety nets:** Adverse impacts of the removal of subsidies on low-income houses could be mitigated by an expansion of well-targeted safety nets. New poverty programs have tended to target the extremely poor. However, more attention is needed to the moderately poor and other vulnerable segments of the population, who live above the poverty line but are significantly vulnerable to natural hazards. As the impact of climate change affects women and men differently, the design of adaptation programs should integrate gender sensitivity.
- **Strengthening public financial management:** Climate change financing represents a critical challenge for public financial management. The BCCSAP provides a list of programs, but no effort has been made to cost and prioritize the projects. A comprehensive estimate of long-term climate change programs is needed, including careful project prioritization, taking into consideration the country's absorption capacity. Such estimates are needed not only to properly integrate spending on adaptation into wider development programs but also as a basis for mobilizing financing.
  - Bangladesh's Climate Fiscal Framework (CFF, Finance Division, June, 2014) is an attempt to make public finance systems ready for utilizing domestic and international climate financing in the most efficient and effective manner. Finalizing and implementing the CFF will ensure efficiency in distributing climate funds to relevant sectors. The framework, as a governance tool for climate funds, should identify a financial authority for mobilizing resources, exploring financing options and coordinating climate related financial activities among the various institutions. Ideally a cell within the Finance Division would be better placed to facilitate the coordination and tracking of expenses.
  - A thorough assessment of the two separate funds, the BCCTF and BCCRF, is also in order. Both funds have been supporting activities by government agencies and civil society as part of the BCCSAP. Decisions should be taken on whether there is merit in managing the funds separately or whether they could be merged to avoid duplication of projects. In the interim, capacity in the Climate Change Unit at the Ministry of Environment and Forest charged with

supervising and coordinating the two funds should be strengthened.

- Transparency in reporting projects financed by the BCCTF could also be reviewed and enhanced. As a beneficiary of budgetary resources, projects implemented under this fund ought to be recorded by the concerned line ministries and reported in public finance accountability frameworks.
- Finally, capacity at line ministries should be strengthened to integrate climate change requirements in planning and budgeting processes.

## E. Conclusion

**19. Climate change presents new challenges on fiscal policy and institutional capacity and coordination.** Adapting to climate change is already incurring significant economic and social costs, an additional strain on limited resources in Bangladesh. These costs are expected to increase significantly, warranting a more coordinated approach to estimating long-term needs, coordinating various financing arrangements, strengthening coordination among stakeholders to avoid duplicating projects, enforcing better tracking of expenditures, and strengthening resource mobilization.

**20. Over the past few years, Bangladesh has been one of the most proactive developing countries to invest in adapting to climate change and pioneer a national policy agenda.** The approach has paid off and there is a high degree of awareness of the climate change challenges among stakeholders and the public. The knowledge capacity in the country, compared to other developing countries, is relatively high and policies are taking shape. The challenge remains to implement policies in a more coordinated, effective manner and develop capacity and institutions for executing climate change adaptation policies.

**Table 4. Bangladesh: List of Green Products under BB Refinance Schemes**

	Activity	Description	Loan limit	Loan tenure
1.	a. Solar Home System	Both rural and urban areas	Maximum Tk 175,000	Maximum 4 years
	b. Solar mini grid	Rural area	Maximum Tk 15,000,000	Maximum 5 years with 6 month grace period
	c. Solar irrigation pumping system	Rural area	Maximum Tk 3,500,000	Maximum 10 years with 6 month grace period
	d. Solar PV assembly plant	...	Loan limit determined on the basis of the assembly capacity of the plant to a maximum of Tk 60,000,000	Maximum 5 years with 6 month grace period
2.	Bio-gas plant	Setting up of biogas plant in existing cattle/poultry farm	Maximum Tk 50,000	Maximum 4 years with 3 month grace period
		Integrated cow rearing and setting up of biogas plant	Maximum Tk 450,000	Maximum 4 years with 3 month grace period
		Organic manure from slurry	Maximum Tk 200,000	Maximum 4 years with 3 month grace period
		Mid range biogas plant	Maximum Tk 2,500,000	Maximum 5 years with 6 month grace period
3.	Effluent treatment plant (ETP)	a. Biological ETP	Maximum Tk 40,000,000	Maximum 5 years with 6 month grace period
		b. Combination of biological and chemical ETP	Maximum Tk 20,000,000	Maximum 5 years with 6 month grace period
		c. Conversion of chemical ETP to (a) and (b) types, above.	Maximum Tk 10,000,000	Maximum 5 years with 6 month grace period
4.	Substitution of energy-efficient kiln for conventional lime kiln	...	Maximum Tk 3,500,000	Maximum 5 years with 6 month grace period
5.	Vermi-compost	...	Maximum: Tk 290,000 with purchase of 2 cows Maximum: Tk 90,000 without purchase of cow	Maximum 4 years with 3 month grace period
6.	Hydropower (pico, micro, and mini)	...	Maximum Tk 5,000,000	Maximum 5 years with 6 month grace period
7.	PET bottle recycling plant	...	Maximum Tk 50,000,000	Maximum 5 years with 6 month grace period
8.	Solar battery recycling plant	...	Maximum Tk 10,000,000	Maximum 5 years with 6 month grace period
9.	LED bulb manufacturing plant	...	Maximum Tk 50,000,000	Maximum 5 years with 6 month grace period
10.	Setting up of Hybrid Hoffman Kiln (HHK)/ tunnel kiln/equivalent technology in brick manufacturing Industry	...	Maximum Tk 50,000,000 for new Project and Maximum BDT 5,000,000 for the conversion of conventional FCK (fixed-chimney kiln) to Zig-Zag/VSBK technology	Maximum 5 years with 9 month grace period

Source: Bangladesh authorities

## References

- Ahmad, Q.K., N. Ahmad, and K.B.S. Rasheed, (eds), 1994, *Resources, Environment and Development in Bangladesh with particular reference to the Ganges, Brahmaputra and Meghna Basins*. Academic Publishers, Dhaka, Bangladesh.
- Ahmad, Q.K., 2012, "Bangladesh: Sustainable Development with Special Focus on Climate Change - Future Directions" Keynote presentation at the seminar on "Sustainable Development with a Focus on Climate Change: Future Directions", organized by Planning Commission, Ministry of Planning, Government of Bangladesh, Dhaka, 11 October 2012.
- Ahmed, A.U., 2005, 'Adaptation Options for Managing Water Related Extreme Events Under Climate Change Regime: Bangladesh Perspectives', in M.M.Q. Mirza and Q.K. Ahmad (eds.), *Climate Change and Water Resources in South Asia*, Balkema Press, Leiden, pp. 255–278.
- Alam. K., Naureen, F., and Wahida, B.A., 2008, 'Gender, Climate Change and Human Security in Bangladesh', Action Aid, Dhaka.
- Bangladesh Bank. 2011, Policy guidelines for green banking, banking regulation and policy department'. Bangladesh Bank, Dhaka.
- , 2013, *Policy guidelines for green banking, green banking and CSR Department*. Bangladesh Bank Finance Division, Bangladesh, 2014. Climate Fiscal Framework, Ministry of Finance, Dhaka.
- Germanwatch Global Risk Index 2010, Briefing Paper: Who is Most Vulnerable? Weather-Related Loss Events since 1990 and How Copenhagen Needs to Respond, Bonn
- , 2014, Who Suffers Most from Extreme Weather Events? Weather-Related Loss Events in 2012 and 1993 to 2012
- Huq, S., Ahmed, A.U., and Koudstaal, R., 1996, "Vulnerability of Bangladesh to Climate Change and Sea Level Rise", in T.E. Downing (Ed.), *Climate Change and World Food Security*, NATO ASI Series, I 37, Springer-Verlag, Berlin, Hiedelberg, 1996, pp. 347–379.
- Huq, S., Z. Karim, M. Asaduzaman, and F. Mahtab (eds.), 1998, *Vulnerability and Adaptation to Climate Change for Bangladesh*, Kluwer Academic Publishers, Dordrecht, 130 pp.
- International Monetary Fund, 2008, The Fiscal Implications of Climate Change, Fiscal Affairs Department International Monetary Fund, Washington DC
- IPCC (Intergovernmental Panel on Climate Change). 2007, Climate Change 2007: The Physical Science Basis. Fourth Assessment Report of the IPCC, Working Group I. Geneva: IPCC.

Rahman, A., Rabbani, G., Muzammil, M., Alam, M., Thapa, S., Rakshit, R., and Inagaki, H., 2010, Scoping Assessment of Climate Change Adaptation in Bangladesh, Summary Report, Adaptation Knowledge Platform, Bangkok, pp. 24.

World Bank, 2000, *Bangladesh: Climate Change and Sustainable Development*. Dhaka: Rural Development Unit, South Asia Region, World Bank.

World Bank, 2007, *The Cost of Adapting to Extreme Weather Events in a Changing Climate*, Bangladesh Development Series, Paper No. 28.

Yu, W., M. Alam, A. Hassan, A.S. Khan, A. Ruance, C. Rosenzweig, D.C. Major, and J. Thurlow. 2010, *Climate Change risks and food security in Bangladesh*, EarthScan publishers, London.

# FINANCIAL INCLUSION IN BANGLADESH<sup>1</sup>

*The Bangladesh authorities have taken a number of measures to enhance access to financial services to those excluded from the mainstream financial sector. These measures have supported a rapid expansion of financial inclusion over the past decade. This note describes some of the initiatives put forth and takes stock of progress in financial inclusion and how Bangladesh compares to other countries.*

**1. Financial Inclusion (FI) is defined as the degree of access to and use of formal financial services by households and firms.**<sup>2</sup> Greater FI allows for financially marginalized groups to increase their income, reduce its volatility, and build assets, thereby providing resilience to economic shocks and helping create jobs and promote business activities. FI is measured in three dimensions – access, usage, and quality of financial services and products. This note focuses on the first two, describes the efforts taken by the authorities in these dimensions, and takes stock of Bangladesh's record on FI over time and from a cross-country perspective.<sup>3</sup>

**2. The Bangladesh authorities have implemented several policies targeting groups that had previously little or no access to financial services.** FI is not new to Bangladesh: since the 1970s microcredit has aimed to provide financial services to sections of society where the reach of formal finance was limited (Box 1). However, in more recent times, FI has become a high-priority goal of the government and deliberate FI policies have been ramped up. The various policies target specific sectors (agriculture and related sectors), firms (small and medium enterprises, SME) and population segments (marginal farmers, landless laborers, urban slum dwellers, senior citizens, and women).

## Existing policies

**3. FI policies address both access and usage.** Policies include the introduction of mobile financial services; the requirement that banks open at least fifty percent of their branches in rural areas; the introduction of agent based banking to provide banking services in the remotest areas; floors on credit to the agricultural and rural sectors backed by credit refinancing lines on concessional terms; support to SMEs and women entrepreneurs; schemes aimed at rehabilitating slum dwellers to the rural areas; and no frill accounts, including the Taka 10 accounts (Box 2).<sup>4</sup>

<sup>1</sup> Prepared by Jayendu De (APD) and Md. Abul Quasem (Resident Representative Office).

<sup>2</sup> See Karpowicz (2014) and IMF (2015)

<sup>3</sup> A total of 24 key categories endorsed by G20 leaders measure the three dimensions of financial inclusion. More information on this is available on <http://www.gpfi.org/featured/g20-basic-set-financial-inclusion-indicators>

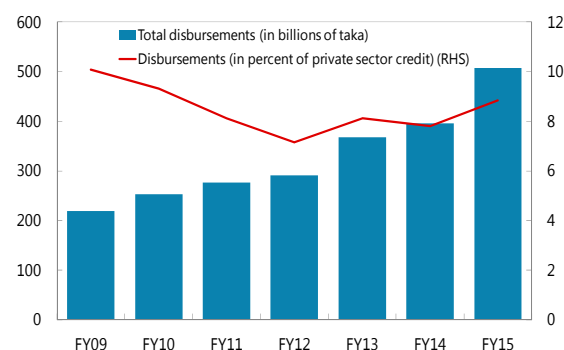
<sup>4</sup> The agricultural and credit refinancing facility is facilitated by BRAC Bank, one of the country's leading microfinance institutions. Bangladesh Bank and Bangladesh Krishi Bank are executing the "Ghore Fera Kormo Suchi" (Come Back Home) project which aims at rehabilitating slum dwellers to the rural areas from cities and towns.

### Box 1. Microcredit in Bangladesh<sup>1</sup>

Limitations of the formal financial market to cater to the needs of the poor led to the emergence of the MFIs in the 1970s, especially in the rural areas. Over the years, the microcredit programs have been taken up by micro-finance institutions (MFIs, the top five of which are Grameen Bank, BRAC, ASA, Proshika, TMSS and Buro Bangladesh), nongovernment organizations (NGOs), commercial banks, and specialized programs of different ministries. Credit provided by the MFIs is broadly classified into (i) small-scale self employment based activities; (ii)

microenterprise loans; (iii) credit for the ultra poor; (iv) agricultural loans; (v) seasonal loans; and (vi) loans for disaster management. Loan amounts up to Taka 50,000 (approximately US\$ 642.70) are generally considered as microcredit; loans above this amount are considered as microenterprise loans. Innovative models of microcredit delivery have also been developed including those for the extreme poor and other marginalized groups. The government set up a regulatory body (Microcredit Regulatory Authority) in 2006 to enhance transparency, accountability and efficiency of MFI operations. As of June 2014, there were 676 NGO-MFIs catering to over 25 million clients of which around 20 million were borrowers. Outstanding disbursements by the top five MFIs amounted to about nine percent of private sector credit extended by the banking system as of June 2015.

**Bangladesh: Disbursements from the Top Five Microcredit Institutions**

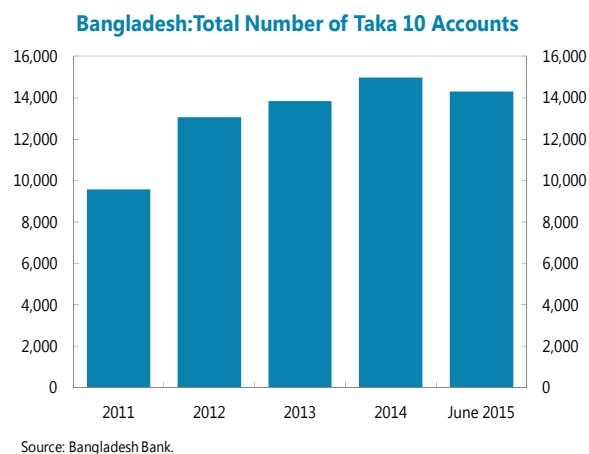


Sources: Bangladesh Bank; and IMF staff calculations.

<sup>1</sup> Based on information provided in the 2013 – 14 Annual Report of Bangladesh Bank (available on their website) and the overview of microcredit from the Bangladesh Microcredit Regulatory Authority.

### Box 2. Bangladesh: Taka 10 accounts

The Taka 10 no frills accounts were introduced by Bangladesh Bank (BB) in 2010. They were targeted towards farmers for directly receiving government subsidies and transfers with the intention of increasing processing speeds and reducing corruption and administrative costs. State owned commercial banks and specialized banks administer these accounts without any fees or minimum balance requirements to encourage participation from previously unbanked groups, especially from the low income socioeconomic strata. These accounts also enable these groups to perform other financial operations such as receiving remittances and seeking credit via formal finance rather than informal sources, thereby reducing their financial costs, and may help increase financial literacy. The number of Taka 10 accounts has increased by 50 percent in the period since their inception to June 2015.<sup>1</sup>



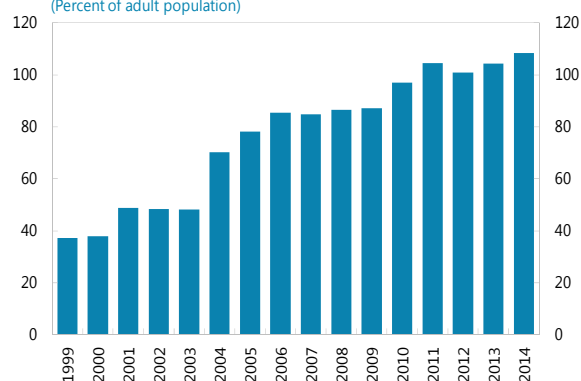
<sup>1</sup> Data provided by the authorities.

### Progress over time

**4. Bangladesh has made steady progress on FI over time.** For instance, the ratio of bank deposit accounts in the adult population, credit provided to SMEs run by women, the actual number of women entrepreneurs, and the number of active mobile money accounts have all increased strongly, while geographic and demographic access to automated teller machines (ATMs) and bank branches has widened.<sup>5</sup>

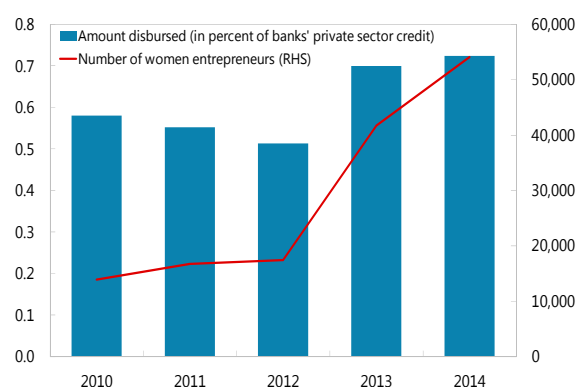
<sup>5</sup> Active mobile money account refers to a mobile account that has been used to conduct a money transaction over the past 90 days.

**Bangladesh: Deposit Accounts**  
(Percent of adult population)



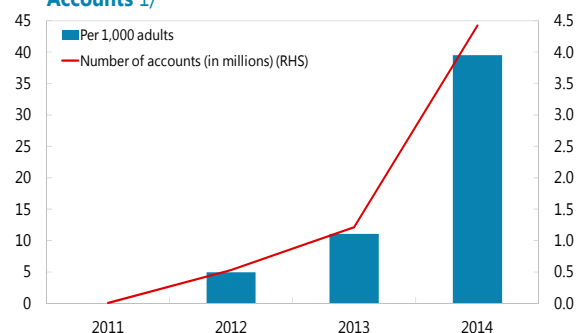
Sources: Bangladesh Bank; and IMF staff calculations.

**Bangladesh: Credit to Women Entrepreneurs**



Sources: Bangladesh authorities; and IMF staff calculations.

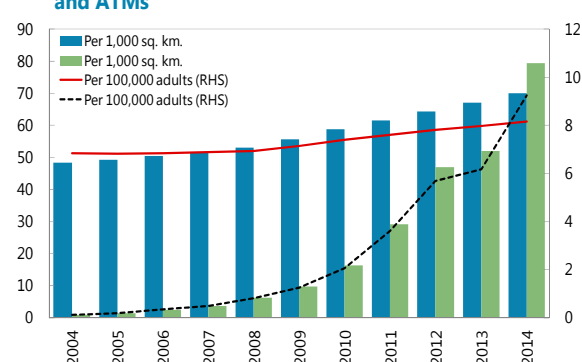
**Bangladesh: Number of Active Mobile Money Accounts 1/**



Source: IMF, Financial Access Survey database.

1/ Active mobile money account refers to a mobile account that has been used to conduct a money transaction over the past 90 days.

**Bangladesh: Number of Commercial Bank Branches and ATMs**



Source: IMF, Financial Access Survey Database.

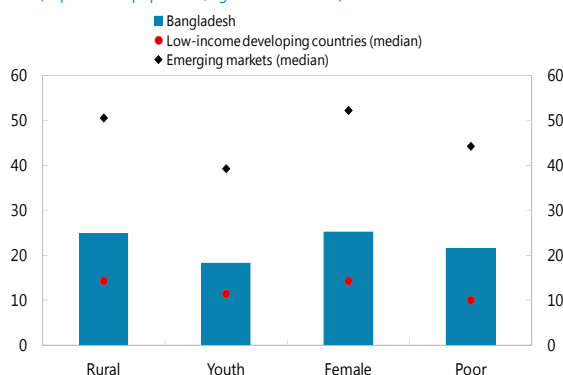
## Cross-country analysis

**5. Bangladesh compares favorably with other low income countries in a broad range of FI indicators.<sup>6</sup>** It performs well for the two important indicators—accounts held at and access to credit from a financial institution—across all four sections of selected population groups (rural, youth, female and poor).

<sup>6</sup> This analysis compares the median and weighted averages (weighted by population) of two comparator groups (i) low-income developing countries (LIDCs); and (ii) emerging markets (EMs) against Bangladesh for various FI indicators. Country definitions are based on the IMF's *World Economic Outlook*.

### Account at a Financial Institution

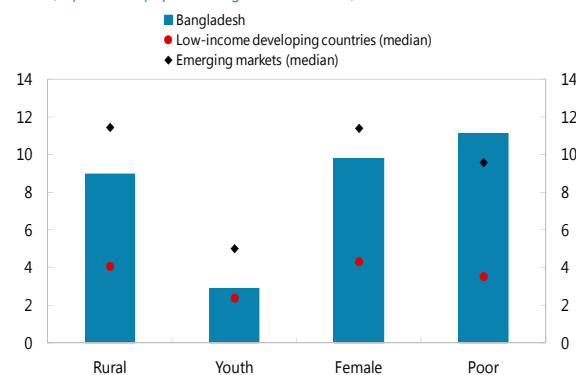
(In percent of population, aged 15 and above)



Source: World Bank, *Finindex* database.

### Borrowed from a Financial Institution

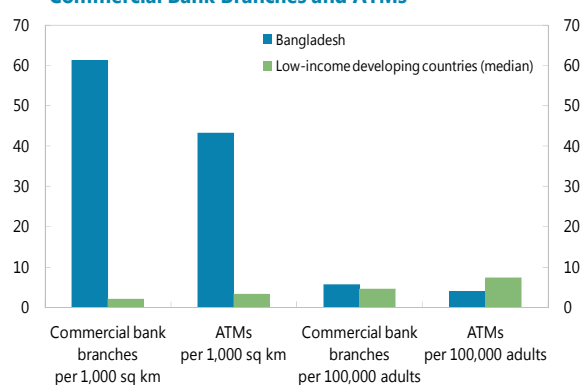
(In percent of population, aged 15 and above)



Source: World Bank, *Finindex* database.

Additionally, Bangladesh does very well in two other important measures of FI: the number of bank branches and the number of ATMs, if measured in terms of area (per 1,000 sq km). However, with Bangladesh's high population density, these indicators are pulled down when measured per 100,000 adults.

### Commercial Bank Branches and ATMs



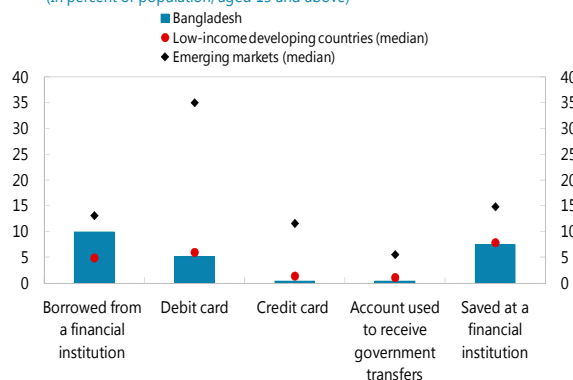
Sources: Bangladesh Bank; and IMF, *Financial Access Survey* database.

**6. Performance in other measures of access to formal finance is not as good.** In particular, the data indicates that usage of debit and credit card usage is still low, as is the practice of saving at a financial institution.

**7. Resort to informal finance is high in Bangladesh.** The use of informal finance is lower, as a percent of the adult population, than for the median LIDC, but it is still high when compared to EMs, and is particularly high in the case of store-based credit.

### Access to Formal Finance

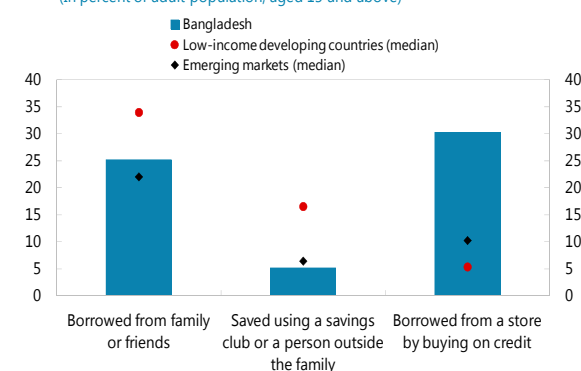
(In percent of population, aged 15 and above)



Source: World Bank, *Finindex* database.

### Access to Informal Finance

(In percent of adult population, aged 15 and above)



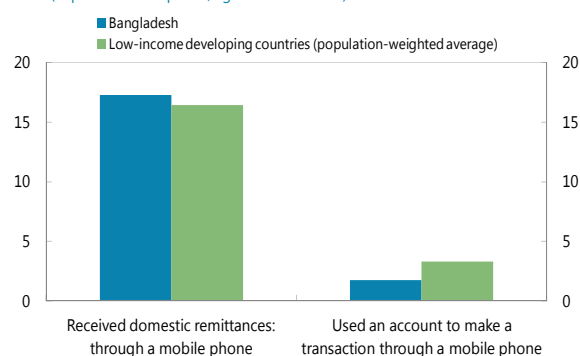
Source: World Bank, *Finindex* database.

## 8. The use of mobile banking is also very high.

Mobile financial services were introduced in 2011, and though still at early stages of development, they have grown very rapidly.<sup>7</sup> Between 2012 and 2015, the number of active mobile money accounts increased from 0.5 million to over 4 million (IMF, *Financial Access Survey* database), while the number of agents providing mobile banking services grew from around 51,000 (2012) to close to 540,000 (authorities' data). Mobile financial services are mostly used to receive domestic remittances (cash transactions) but do not involve a formal account at a financial institution. Thus, these services are being used mostly through informal financial channels.

### Mobile Banking

(In percent of recipients, aged 15 and above)



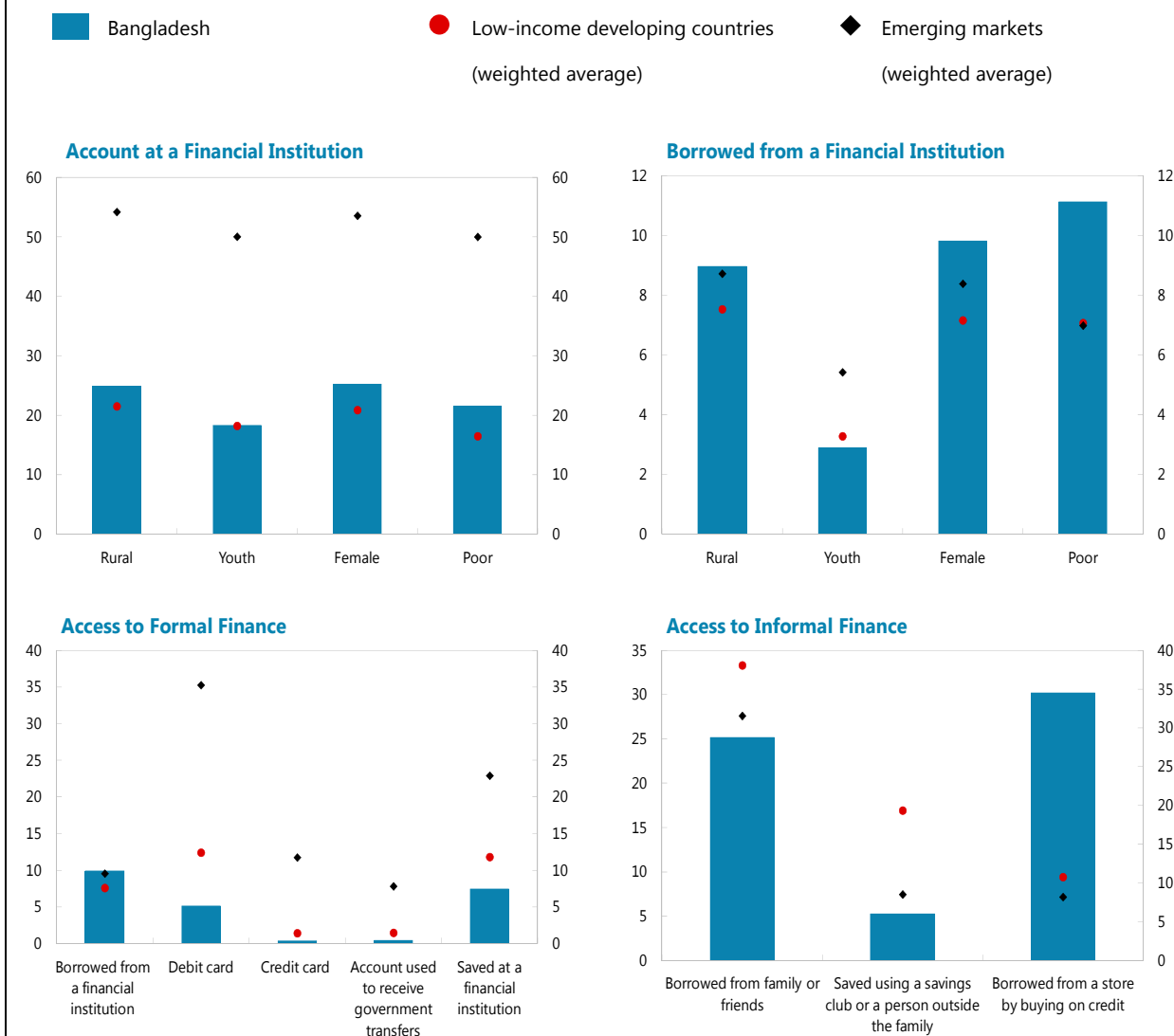
Sources: World Bank, *Findex* database; and IMF, *World Economic Outlook* database.

**9. The results of the cross-country analysis are robust to different types of aggregation.** For instance, if country observations are weighted by population, Bangladesh scores better than emerging markets in providing formal credit to the rural, female, and, especially, the poor segments of the population.

<sup>7</sup> bKash (a subsidiary of BRAC Bank) and Dutch Bangla Mobile are the more popular mobile banking services currently in use in Bangladesh.

**Figure 1. FI Indicators Weighted by Population**

(Percent of population aged 15 and above)

Sources: World Bank, *Findex* database; and IMF, *World Economic Outlook* database.

## Implications

### 10. Policies should continue to focus on further promoting the use of formal finance.

Although access to informal finance (credit from friends, family, or a store) is easier, it typically can be more expensive and less reliable than formal channels. In addition, the use of formal finance helps build credit history and inculcates a relationship between debtor and creditor for repeated use of credit. The growing use of the no frill accounts is helpful in this respect. Strengthening financial literacy programs and conducting surveys to understand the needs of minority groups and their constraints and costs when using formal channels would also help.

## References

Bangladesh Bank, 2015, "Annual Report (2013–14)"

Bangladesh Bank, 2015, "Special Publication–Financial Inclusion"

Bangladesh Microcredit Regulatory Authority, 2015, "An Overview of Microcredit in Bangladesh"

Karpowicz, Izabela, 2014, "Financial Inclusion, Growth and Inequality: A Model Application to Colombia", IMF.

Sahay, R. M. Cihak, P. N'Diaye, A. Barajas, D. A. Pena, R. Bi, Y. Gao, A. Kyobe, L. Nguyen, C. Saborowski, K. Sviridzenka, and R. Yousefi, 2015, "Rethinking Financial Deepening: Stability and Growth in Emerging Markets", IMF.