Mobilizing Domestic Micro Savings to Finance SDGs
Executive Summary

- The Gov. of Bangladesh’s development expenditure will keep growing at a CAGR of 22% (FY2020-30) due to SDGs requirements.

- COVID19 pandemic and upcoming economic recession might plunge the SDG budget higher with significant allocation in – healthcare, education, communication infrastructure, stimulus package disbursement among other essential sectors.

- Presently, 48% of the development budget is financed by external sources (foreign concessional and non concessional loans, grants). Due to the global pandemic (in short to medium term) and Bangladesh’s graduation to Middle Income Class (in longer term), the flow of foreign capital will dwindle significantly by 2028.

- Since 2016, Bangladeshi citizens have been saving an annual average of US$ 46 Bn through formal and informal channels. Last year, total savings hovered around US$ 103 Bn. Currently, only 6% of the formal savings is being mobilized to finance the development budget.

- A digital financial value chain can mobilize US$ 118 Bn (estimated for 2020) of citizen micro savings, remittances and Zakat at scale and finance specific SDGs.

- Leveraging technology (i.e. blockchain, cloud computing), innovative financial instruments (i.e. crowdfunding, impact bonds, securitization), partnerships (i.e. MFS, Financial Institutions, Telco, Startups), and building a policy sandbox. Bangladesh can create an unprecedented opportunity for its citizens to directly invest in building their own infrastructure while also getting equitable returns.

- A seamless flow of domestic capital for long-term development financing will expunge the reliance on foreign capital market while also expand financial inclusion.
Context

• This initiative is one among the selected pathfinder projects portfolio, catalyzed by the UN Secretary General established Task Force on Digital Financing of the Sustainable Development Goals (SDGs). The Task Force's mandate is to recommend and catalyze ways to harness digitalization in accelerating financing of the SDGs.

• This pathfinder project in Bangladesh is jointly being implemented by a2i (UNDP and ICT Division) and UNCDF. The project illustrates the practical potential for ambitious, game-changing action empowering citizens by providing more and better data, cheaper transactions and financial intermediation, and innovative financial products.

• For more information, please contact: Anir Chowdhury, Policy Advisor, a2i (Aspire to Innovate) Programme, anir.chowdhury@a2i.gov.bd
## List of Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>AI</td>
<td>Artificial Intelligence</td>
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<tr>
<td>ASEAN</td>
<td>Association of Southeast Asian Nations</td>
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<td>BDT</td>
<td>Bangladeshi Taka</td>
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<tr>
<td>BN</td>
<td>Billion</td>
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<td>BoP</td>
<td>Bottom of the Pyramid</td>
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<td>CAGR</td>
<td>Compound Annual Growth Rate</td>
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<td>CPD</td>
<td>Center for Policy Dialogue</td>
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<td>DFS</td>
<td>Digital Financial Services</td>
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<tr>
<td>DPS</td>
<td>Deposit Pension Scheme</td>
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<td>FDI</td>
<td>Foreign Direct Investment</td>
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<tr>
<td>FDR</td>
<td>Fixed Deposit Receipt</td>
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<td>FY</td>
<td>Financial Year</td>
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<td>G2G</td>
<td>Government to Government</td>
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<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
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<td>GoB</td>
<td>Government of Bangladesh</td>
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<td>HH</td>
<td>Households</td>
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<tr>
<td>IMF</td>
<td>International Monetary Fund</td>
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<td>LIC</td>
<td>Low Income Community</td>
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<td>ME</td>
<td>Middle East</td>
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<td>MFI</td>
<td>Micro Finance Institutions</td>
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<tr>
<td>MN</td>
<td>Million</td>
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<tr>
<td>NBFI</td>
<td>Non-Bank Financial Institutions</td>
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<td>NRB</td>
<td>Non Resident Bangladeshis</td>
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<td>NSC</td>
<td>National Savings Certificate</td>
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<td>ODA</td>
<td>Overseas Development Aid</td>
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<td>RMG</td>
<td>Ready Made Garments</td>
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<tr>
<td>SME</td>
<td>Small and Medium Enterprise</td>
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<td>SDG</td>
<td>Sustainable Development Goal</td>
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<tr>
<td>US$</td>
<td>United Stated Dollar</td>
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<tr>
<td>Y-o-Y</td>
<td>Year on Year</td>
</tr>
</tbody>
</table>
1. Increasing development budget and current mode of financing
2. Proposing an alternative financing model mobilizing savings by Bangladeshi citizens
3. Application of fintech in aggregating, managing and mobilizing the savings to finance SDG
4. Distribution effect of using fintech in channeling micro savings
5. Building the ecosystem leveraging the right partnerships
6. Impact of COVID19 on SDGs
Development Expenditure

Today

Financing

International 48%
Project Aid (Foreign) 35%*
Foreign Borrowing 13%

Domestic 52%
Revenue 27%
Borrowing from Banking System 19%
Non Bank (NSC & others) 6%

Tomorrow

Rising Cost of Fund

International capital will be 15 to 20% more expensive than domestic capital due to –
• Discounted flow of project aids and increasing interest rates on foreign loans
• Threat of currency devaluation

Alternative

Channeling Savings by Bangladeshi Citizens

Unprecedented aggregation of micro savings using digital financial value chain

Source:
1. National Budget FY 2020-21, 2019-20, 2018-19; Ministry of Finance
2. Budget Speech FY 2019-20, FY 2018-19; Ministry of Finance

*foreign grants are less than 4% and the rest is concessional loans
48% of the development infrastructure budget is financed through external sources, by 2030 SDG spending will comprise 88% of the total infrastructure budget.

In FY19-20, the infrastructure budget stood at US$24 Bn. Due to SDG requirement the budget is projected to go up to **10x by 2030**. Government's development expenditure will rise due to the COVID19 pandemic which might further drive SDG expenses higher and both foreign and domestic debt market might shrink.

More spending is anticipated to occur in building healthcare infrastructure, blended learning in education sector, improving communication infrastructure and stimulus package disbursement in the coming years.
External funding can be cheaper now, but the **cost of fund** will keep rising and International capital can be **15 to 20% more expensive** compared to domestic capital.

**Discounted flow of project aids (foreign) and increasing interest rates**

**Currency devaluation**

**Sources:**
Bloomberg, Bangladesh Investment Advisory Board, Bangladesh Bank
## A relative comparison between sourcing from domestic and foreign market capital

<table>
<thead>
<tr>
<th>Point of Comparison</th>
<th>Domestic Savings</th>
<th>Foreign Market Capital</th>
<th>Winning Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Initial Lucrativeness</strong></td>
<td>Initial higher cost makes national savings less lucrative.</td>
<td>Existing infrastructure and availability makes it more lucrative in the short run.</td>
<td>Foreign Market Capital</td>
</tr>
<tr>
<td><strong>Equity Outcomes</strong></td>
<td>Better equity outcomes for for micro savers/Bangladeshi Citizens. GoB will pay dividends to its own citizens leading to distribution effect and citizen equity. Citizens have a choice and opportunity to invest in the country's infrastructure.</td>
<td>Payment goes to an international bank or financing agency</td>
<td>Domestic Savings</td>
</tr>
<tr>
<td><strong>Cost of Funds</strong></td>
<td>Initial cost of fund may seem high compared to international rates however both borrowing and repayment would be in domestic currency with no Forex risk.</td>
<td>Open to forex risk and expected BDT devaluation will keep driving the cost of fund higher</td>
<td>Domestic Savings</td>
</tr>
<tr>
<td><strong>Effect on Forex Reserve</strong></td>
<td>The transactions are done in local currency so no effect on foreign exchange</td>
<td>Puts pressure on forex reserve.</td>
<td>Domestic Savings</td>
</tr>
<tr>
<td><strong>Economic Independence</strong></td>
<td>With domestic savings, the country does not have to provide any special advantages to external parties which ensures greater economic independence.</td>
<td>Most of the time, investors impose conditions that bind the recipient to certain conditions like specific trade agreements.</td>
<td>Domestic Savings</td>
</tr>
<tr>
<td><strong>Development of Domestic Capital Ecosystem</strong></td>
<td>Innovations in local financial markets including (not limited to) Impact Bonds, Micro-savings, Crowdfunding, Alternate Investments, Securitization, Opportunity to collect micro-amounts at scale across Bangladesh and beyond will create an ecosystem which will facilitate the growth of domestic capital market.</td>
<td>Doesn't directly help in the growth of domestic capital markets.</td>
<td>Domestic Savings</td>
</tr>
</tbody>
</table>
Fintech gives us an unprecedented opportunity to mobilize micro savings at scale

Digital Financial Value Chain tools for mobilizing -
• Blockchain
• Mobile Financial Service
• Cloud Computing

Challenges with traditional method

- High infrastructure cost
- High cost of managing fund
- Has to maintain a certain ticket size

Solving those challenges using “Digitalization”

- Aggregating savings through digital financial services
- Fintech can create disintermediation
- No minimum ticket size
Presently, only **6% of formal saving** (National Savings Certificate) is being invested in infrastructure.

**COVID19 pandemic and economic downturn** might force **middle and affluent class consumer to spend less and save more while lower income group might stop saving altogether as their incomes are getting affected.**
In 2020, savings by Bangladeshi citizens totalling US$ 118.4 Bn+ can be tapped to finance SDGs.

- **US$61 Bn**: Forecasted formal savings in 2020
- **US$14 Bn**: Forecasted remittance flow in 2020
- **US$41 Bn**: Forecasted informal savings in 2020
- **US$2.4 Bn**: Forecasted flow of Zakat in 2020

Even partial utilization through digital financial value chain can finance SDG.

Source:
2. Annual Zakat – Calculated based on expert opinion
Fintech transforms micro saver to micro investor creating significant distribution effect in the economy

Aggregation of Micro savings at almost ZERO Cost

Mega fund which can be leveraged to finance specific SDG

Ecosystem Outcome

- Efficiency
- Distribution Effect
- Disintermediation
- Transparency
- Domestic Capital Markets Development

Micro savers

Fintech Instruments
Mega fund aggregated from micro savers can be channeled to finance specific SDG projects with traceability using fintech and innovative financial instruments.
Once invested dividends from the infrastructure go back to the original Micro Investor creating unprecedented distribution effect

Think of a CNG driver paying the toll for using a bridge which has been built utilizing his savings.

Building **Bangladeshi infrastructure** from **Bangladeshi citizens’ savings** and ultimately **repaying the citizens** their money through the infrastructure income – can create an exemplary case of **distributional effect** globally!
In total 100,000 bonds are to be released (each BDT 10,000)

Annual Coupon Rate = 10%

Maturity = 10 Years

Return on Investment

Annual Payment = BDT 1,000

Or, Quarterly Payment = BDT 250

10 years later

Face Value = BDT 10,000
## Innovative financial instruments and their relevance in Bangladesh context

<table>
<thead>
<tr>
<th>Instruments</th>
<th>How These Work</th>
<th>Global Success Story</th>
<th>Application in Bangladesh's Context</th>
<th>For Savers</th>
<th>For Government</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Securitization</strong></td>
<td>Citizen micro savings can be used to finance big infrastructure project. The savers are repaid by the earnings generated through the infrastructure.</td>
<td>The citizens of Seoul, South Korea, have financed a railways station using their savings. Later they were repaid by the revenue earned from selling tickets.</td>
<td>Can be used for financing large infrastructure (road and transport) projects such as – Padma bridge. The repayment can be generated through toll fees.</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td><strong>Crowdfunding</strong></td>
<td>Funding development projects directly from sourcing money from the citizens can create heightened sense of responsibility among citizens. They will be repaid within a short period of time once the project is completed.</td>
<td>Ketto, a crowdfunding platform in India, has raised US$70 Mn from 2.5 Mn donors through 150k campaigns (2012-2019).</td>
<td>Following donation, debt or reward model small infrastructure projects such as – repairing a rural bridge or school building can be done using it. The social return of contributing often surpasses the cost.</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td><strong>Micro Savings</strong></td>
<td>Savings by the people belonging to LIC is too small to be included in the formal channel using traditional mechanisms. M-pesa allows people to increase savings, while enabling a data capturing mechanism to tap into idle money (floating money) for further investment across Kenya.</td>
<td></td>
<td>With the application of digitization, micro savings can be transformed into funds.</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td><strong>Impact Bond</strong></td>
<td>Donor funding will be released based on the impact created by the investee. In 2016, Educate Girls, a local NGO in Rajasthan India, teamed up with a donor agency in implementing programs to encourage parents to send their female children to schools.</td>
<td></td>
<td>Government can coordinate the activities of private sector investor and donors in creating a steady flow of impact funding.</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td><strong>Microinsurance</strong></td>
<td>Through micro insurance investment, savers can earn a significant return while government can use that fund. MicroEnsure, using mobile technology and data-driven approaches, provides microinsurance to small-business owners in Nairobi, Kenya. Users can get pay-out through mobile money services.</td>
<td></td>
<td>Unbaked people can be included to the formal channel using this instrument. Relatively smaller funds can be raised for short to medium term projects.</td>
<td>Medium</td>
<td>High</td>
</tr>
<tr>
<td><strong>Infrastructure Bond</strong></td>
<td>Infrastructure bonds are borrowings to be invested in government funded infrastructure projects within a country. Issued by governments or gov. authorised Infrastructure companies or NBIs.</td>
<td>The Central Bank of Kenya has floated a US$ 236 Mn Infrastructure Bond in May 2020 to assist the Government finance the Nairobi Standard Gauge Railway in FY20-21. The six-year bond will pay an interest of 10.2% per annum.</td>
<td>Financing of large mega projects can be done by launching infrastructure bonds. This also unlocks unprecedented opportunities for public private partnerships.</td>
<td>Low</td>
<td>High</td>
</tr>
</tbody>
</table>
Summing up the three phases of creating long-term development fund from citizen micro savings to finance SDGs

1. Micro savers into Micro investors
2. Micro investment into Mega Fund
3. Mega Fund being channeled to specific SDG
We need to bring together agencies to create a seamless flow of domestic capital for long-term development financing.

- Ministries under Government of Bangladesh
- Specialized Agencies
- Regulatory Support
- Mobile Financial Service Providers
- Fintech Companies
- Telecommunications Companies
- Technology and Implementation Support
- Citizen Literacy and Awareness Building Support
- Development Sector Players Projects
- Citizen Literacy Programs
- Private Sector Players
- Financial Sector Support
- Banks and NBFIs
- Micro Finance Institutions
- Asset Management Companies
- Insurance Companies
- Technology and Implementation Support
- Private Sector Players
- Financial Sector Support
- Banks and NBFIs
- Micro Finance Institutions
- Asset Management Companies
- Insurance Companies
Next Steps: A Pilot to get things started: Micro-Savers to Micro-Investor Model

Steering group - Fintech, Banks/MFIs/NBFIs, GOB

SDG Linked Investment - Small-scale Investment for 1 year

Investment Vehicle – Savings Mobilization

Investment to Return – 1st Year Pilot Return

Policy and Regulatory Support
Proposed pilot projects

Road/bridge Financing

Construction/ Renovation of new/ existing public communication infrastructure

Road/bridge Financing

Development /Expansion of an new/ existing Healthcare facility (semi or fully autonomous).

Healthcare Financing

Development/ Expansion/renovation of an Educational Facility at peri-urban/rural area

Schools practicing online education, flipped classroom models.

Education Financing

Hospitals, union health complex
<table>
<thead>
<tr>
<th>Major Risks</th>
<th>Probability of Occurring</th>
<th>Level of Impact</th>
<th>Response Strategies</th>
</tr>
</thead>
</table>
| Challenges in aggregating micro funds          | High                     | High           | a. **Running a pilot project:** Before formally launching the proposed plan, a piloting can be done to identify the underlying challenges in aggregating micro funds. The rationale behind this is to test the efficiency of the suggested financial and technical instruments and measure citizen readiness.  
   b. **Citizen literacy program:** Awareness programs in partnership with relevant public, private and non-profit organizations, can reduce the threat.  
   c. **Policy support:** Proper policy support from regulatory bodies and involvement of government agencies can play a pivotal role in increasing citizens’ confidence in investing in SDG funds. |
| High cost of managing fund                     | Low                      | High           | The key rationale behind suggesting a digital financial value chain in mobilizing fund is that it will minimize the cost of managing fund using traditional methods. Initially, it might seem expensive to design and implement innovative instruments, but in the long run the cost will surpass the benefit generated by it. |
| Failure in deployment phase                    | Medium                   | High           | In order to mitigate the chance of failure in deployment phase i.e. inability to target aggregated fund to specific SDGs, two preconditions should be met –  
   a. Piloting before implementation  
   b. Ensuring accountability of involved agencies |
| Failure to adapt fintech                       | Medium                   | High           | Citizen literacy program can play an instrumental role in increasing fintech adaption. Additionally, appropriate policy guidelines that enable fintech instruments to work as a savings mechanism is necessary to mitigate this challenge. |
| Inability to bring together relevant agencies  | Medium                   | High           | The suggested solution cannot be implemented in silo. Therefore, all relevant agencies such as regulatory bodies, digital financial service providers, telecommunication companies, non-profit organizations, private sector players and financial institutions must work together for bringing about the change. Therefore, before launching the program, each party must be on boarded with the plan. |
### Impact of COVID-19 on SDG implementation

#### Impact on the Economy

<table>
<thead>
<tr>
<th>Impact</th>
<th>Details</th>
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<tbody>
<tr>
<td>Export earning from RMG</td>
<td>might shrink by US$ 7 Bn compared to last fiscal</td>
</tr>
<tr>
<td>Flow of remittances</td>
<td>might plummet by 22% from the previous fiscal year</td>
</tr>
<tr>
<td>By the end of 2020,</td>
<td>around 6 Mn people will lose their jobs</td>
</tr>
<tr>
<td>Poverty rate</td>
<td>might rise to 41% from 20.5% (FY19)</td>
</tr>
<tr>
<td>52% of SMEs</td>
<td>have completely shut down their business</td>
</tr>
<tr>
<td>Agriculture supply chain</td>
<td>got disrupted and negatively affected the food security of vulnerable communities</td>
</tr>
<tr>
<td>16 Mn students</td>
<td>might fall out of education as a result of poverty</td>
</tr>
<tr>
<td>Public health infrastructure</td>
<td>is at the brink of collapse</td>
</tr>
</tbody>
</table>

#### Directly Impacted SDGs

1. **No Poverty**
2. **Zero Hunger**
3. **Good Health and Well-Being**
4. **Quality Education**
5. **Clean Water and Sanitation**
6. **Innovation and Infrastructure**
7. **Reduced Inequalities**
8. **Decent Work and Economic Growth**
9. **Sustainable Cities and Communities**

#### Indirectly Impacted SDGs

Source:
1. RMG & Remittances Data, Bangladesh Bank, World Economic Forum
2. Poverty level, education, unemployment, South Asian Network for Economic Modeling (SANEM)
3. SME Data, LightCastle Partners and Sheba.xyz Research
THANK YOU

For more information, please contact:
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ANNEXURE
Annex 1: Continuous local market borrowing will lead to a crowding effect and hinder the growth of private market

**Government Borrowing from Private Sector vs Private Sector Credit Growth (%)**

**Public vs Private Sector Credit Growth**

Source: Budget in Brief, Ministry of Finance

Source: Monthly Economic Trends, Bangladesh Bank, January 2020
Annex 2: The ecosystem is ready to accommodate a transformation

- 5th largest mobile market in Asia Pacific
- 66% of the total population belong to 18-64 age group
- Number of active social media users: 30 million
- Number of active Mobile Financial Service (MFS) user: 35.09 million
- Number of registered MFS account: 75 million
- Total number of internet subscribers: 90.705 million
- 94% of the internet subscribers use mobile internet
- Mobile broadband adoption is assumed to accelerate with the introduction of 4G

Sources:
GSMA: Bangladesh Country Profile, Hootsuite, We are social, 2018 Bangladesh, Bangladesh Bank
Annex 3: Requirements to be met by financial instruments for infrastructure funding

**Liquidity**
Around 79% of the citizens save money using savings account (current) while only 30% save in long term investments such as fixed deposit.

**For Micro Savers**

**Security**
Bangladeshi citizens who are included in the formal channel often choose to invest in National Savings Certificate offered by Bangladesh Bank as the government is bound to payback the savers even if the economy collapses.

**For Government**

**Scalability**
The higher the number of savers, the easier and more accurate it will be to figure out the ratio of fund that will always be available to the government at any given point in time.

**Stability**
When the fund is scalable meaning a significant number of people are investing in that fund, the ratio of withdrawal will get lower. As a result the stability of the fund will be ensured.
### Annex 4: Preconditions for the pilot to be in place

<table>
<thead>
<tr>
<th>Area</th>
<th>Policy Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Financial Policy</strong></td>
<td>Formulate 'digital banking' license, where they can collect deposit and provide loan by using digital means</td>
</tr>
<tr>
<td><strong>Regulatory Support</strong></td>
<td>License for wallet or stored value facility should be open to all - liberalize from the present bank-led model</td>
</tr>
<tr>
<td><strong>Regulatory Support</strong></td>
<td>Crowdfunding needs green signal. Many small scale SDG related investments can be attracted through crowdfunding - specially from NRBs</td>
</tr>
<tr>
<td><strong>Regulatory Support</strong></td>
<td>Securitization needs green signal. It has the potential to channel large scale SDG related investments</td>
</tr>
<tr>
<td><strong>Fintech License</strong></td>
<td>Bangladesh Bank should open a sandbox for Fintech companies. Findings from the pilot can then be used to formulate requisite policy for Fintech companies.</td>
</tr>
</tbody>
</table>