

Accelerating digital transformation in Bangladesh:

Recommendations for mobile-sector taxation reform



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Executive Summary

Globally, more than 5 billion people are using mobile technology to access life-enhancing services such as digital health services, e-government platforms and digital education services. Mobile connectivity is an important driver of economic growth across all sectors. In Asia, the International Telecommunication Union (ITU) estimates that a 10% increase in mobile broadband penetration would yield a 0.51% to 2.43% increase in GDP per capita.¹

A conducive regulatory environment, especially the tax framework, is required to accelerate countries' digital transformation and maximise the benefits of connectivity. This is particularly relevant as Bangladesh now faces the challenge of penetrating low-income groups to connect the unconnected.

This report presents the current state of mobile sector taxation in Bangladesh and provides recommendations to improve connectivity through tax reform. The study concludes by recommending an alignment of the minimum turnover tax and the corporate tax with the general rate to enable the industry to invest towards the achievement of Digital Bangladesh.

Mobile connectivity is critical to achieving the objectives of Digital Bangladesh

As acknowledged by the Bangladesh Planning Commission in its 8th Five Year Plan (8FYP), with the COVID-19 pandemic "*ICT became the lifeline for finance, education, agriculture, health, skill and employment*".²

Establishing a conducive tax framework is a priority intervention contributing to Digital Bangladesh objectives. As per the 8FYP, the ICT Division plans a "*revision of tax, VAT and surcharge to decrease internet price*" during the financial year 2022. This action contributes to Action Agenda: "*Universal affordable access to internet broadband connectivity*".³

Furthermore, the 8FYP highlights that the heavy taxation of ICT services has constrained the use of smartphones and internet services, limited the private-sector-led supply of ICT infrastructure and lowered service quality. Based on this, the 8FYP concludes that "the reform of ICT taxation is an essential policy reform that will provide a substantial boost to GDP growth and employment in Bangladesh".⁴

The tax contribution of the mobile sector in Bangladesh is considerably higher than the average for Asia Pacific and other regional averages; this could limit the country's digital transformation.

In 2019, the total tax contribution of the mobile sector, amounting to BDT 119 billion (\$1.4 billion), represented about 44% of total sector revenue.⁵ This is substantially higher than the Asia Pacific average (24%) and the global average. When annualised one-off spectrum licence fees are taken into account, the total tax contribution of the mobile sector represents 49% of revenue (\$1.6 billion).

The high tax contribution is due to sector-specific taxes, representing 56% of total tax payments (25% of revenue). These are paid in addition to other, economy-wide, general taxes (19% of revenue). The more burdensome sector-specific taxes include the supplementary duty on mobile services, the sector-specific share of corporate tax, and minimum turnover tax and the BTRC revenue sharing fee.

1 ITU (2019). Economic contribution of broadband, digitization and ICT regulation: Econometric modelling for Asia-Pacific.

² Bangladesh Planning Commission (2020). 8th Five-year plan July 2020 – June 2025. Page 652.

³ Bangladesh Planning Commission (2020). 8th Five-year plan July 2020 – June 2025. Pages 680-681.

⁴ Bangladesh Planning Commission (2020). 8th Five-year plan July 2020 – June 2025. Page 709.

⁵ As per GSMA methodology, the total tax contribution of the mobile sector is the sum of payments made by mobile network operators for annual taxes and annual regulatory fees. See table 2 for a full list of taxes and fees. Withholding tax payments and one-off payments are excluded from this total tax contribution.

Despite the expansion of mobile coverage, about half of Bangladesh's population (46% unique-subscriber penetration) remains unconnected to a mobile network (2020). Reforming mobile taxation is key to accelerating digital inclusion.

While Bangladesh has one of the highest levels of 4G coverage by population (95%) in South Asia, about 109 million Bangladeshis (67% of the population) do not use mobile broadband despite living within the footprint of a mobile broadband network (2020).

Notwithstanding the historically high tax burden, sector-specific taxes on consumers and operators have increased significantly over the past two years. These tax increases raise the affordability barrier even further, making it more difficult for low-income households to access mobile connectivity. Reforming the tax framework could unlock digital inclusion by striking the right balance between capturing revenues for government and expanding mobile broadband adoption and usage.

As the main way for citizens to access broadband connectivity, mobile is at the centre of the digital transformation. Tax policy should be aligned and supportive towards achieving Digital Bangladesh objectives.

The mobile sector tax regime could be made more conducive to Bangladesh's transformation to a digital economy by:



Reforming mobile sector taxation would trigger greater adoption and usage of mobile connectivity. This would generate higher GDP and tax receipts for the government in the medium term from the increased economic activity and productivity across the economy.

Reducing the minimum turnover tax and the corporate tax rates would make the tax system more equitable and recognise the positive externalities of the mobile sector. The table below summarises the main economic impacts of these reforms five years after the tax reform.

Table 1

Summary of selected annual impacts, five years after tax reform

Source: GSMA analysis and EY, GSMA (2018)

	Reduction of the minimum turnover tax from 2% to 0.5%	Reduction of the corporate tax for non-public mobile companies from 45% to 40% and for public mobile operators from 40% to 35% ^{6,7}
GDP	+476 million USD	+131 million USD
Annual gain in tax revenue	+47 million USD	+14 million USD

6 EY, GSMA (2018). Reforming mobile sector taxation in Bangladesh.

It is expected that a larger reduction in corporate tax, as recommended in section 2 (reduction of corporate tax for non-public mobile companies from 45% to 32.5%% and for public mobile operators from 40% to 25%), would lead to higher positive impacts on the mobile sector, the wider economy and total tax receipts for the government.



1. The mobile economy and taxation in Bangladesh

This section provides a detailed overview of mobile sector taxation in Bangladesh, including benchmarking and impact on the cost of mobile services.

Despite the expansion of mobile coverage, about half of Bangladesh's population remains unconnected to a mobile network (2020).

1.1 The state of mobile connectivity

Over the past decade, the mobile market in Bangladesh has expanded at a steady pace, with the number of unique subscribers growing from 47 million in 2010 to 90 million in 2020, an increase of over 90%. At the end of 2020, Bangladesh had a unique-subscriber penetration of 54% and a total connections penetration of 101% with some users owning multiple connections.⁸

To successfully transition to a digital economy, the large proportion of the country's population (46% - unique-subscriber penetration) that remains unconnected to the mobile network must not only be covered, but have the skills and the means to take advantage of mobile service (2020). This is a challenging task as mobile connectivity is now penetrating the low-income groups. Adequate policy measures, including on taxation, must be taken to improve digital inclusion.

With one of the highest levels of 4G population coverage (95%) in South Asia, Bangladesh has a low coverage gap (5%) — population not covered by mobile broadband services. However, the mobile broadband usage gap — defined as the percentage of the total population covered by mobile broadband networks but not using mobile internet — is high (67%) and above the South Asia average (61%). Compared to the South Asia average (34%), Bangladesh has a low proportion of the population connected to mobile broadband services (28%).⁹

Figure 1

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Mobile internet connectivity (% of total population, 2020)

Subscribers differ from connections such that a unique user can have multiple connections. Total unique subscribers who have subscribed to mobile services at the end of the period. Source: GSMA Intelligence database.

9 South Asia includes Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka.

Barriers to using mobile internet include affordability, lack of awareness, illiteracy and lack of digital skills. By increasing the cost of mobile connectivity, sector-specific taxes such as excise duties on mobile services deter the adoption and use of mobile services, for low-income people especially. In turn, it limits the positive impact of mobile services on the economy and society. Low 4G device penetration is also contributing to poor 4G service adoption. Access to an affordable mobile device remains one of the key barriers.¹⁰

Bangladesh has the highest level of consumer taxes as share of the total cost of mobile ownership (TCMO, 35%) in the Asia region. This is due to the high level of sector-specific taxes, including various excise duties on mobile services and the highest custom duty on smartphones in South Asia.

Figure 2

Consumer taxes as a share of TCMO (2019)

Source: GSMA Intelligence



Consumer Taxes (%of TCMO)

10 GSMA (2021). Achieving mobile-enabled digital inclusion in Bangladesh.

11 TCMO is a tool measuring the affordability of mobile services. It consists of the cost of a handset, activation and usage costs and is presented as a proportion of monthly income.

"While the pandemic caused distress across all sectors it also revealed the significance of ICT [...]. ICT became the lifeline for finance, education, agriculture, health, skill and employment."

Bangladesh 8th Five-year plan July 2020 – June 2025

1.2 Impact of mobile on the economy and society

For many, mobile is the primary channel for accessing the internet. By providing connectivity, the mobile sector enables life-enhancing benefits such as access to educational resources, access to connected businesses and financial services via mobile money. In the case of education, mobile connectivity reinforces traditional teaching methods by providing access to new sources of information, and it can also enable vulnerable and remote communities to access education through distance learning solutions. For instance, educational platforms such as Konnect platform, Muktopaath and Teachers Portal provide millions of students remote access to learning content.^{12,13}



GDP and productivity are positively impacted by mobile connectivity. A recent ITU report focusing on Asia-Pacific (2019) estimates that a 10% increase in mobile broadband penetration yielded a 0.51% increase in GDP per capita.¹⁴ When high-income countries are excluded from the analysis, this increases to 2.43%, indicating that the positive economic impacts are stronger for less advanced economies.

In addition to its direct tax contributions, the mobile sector also contributes indirectly to government revenue. Mobile services enable the digitalisation of person-to-government (P2G) payments through mobile money. Among the benefits it brings, the digitalisation of P2G payments contributes to government revenue through reduced administrative costs, reduced leakage and an expansion of the revenue collection base. For example, in Pakistan, the digitalisation of passport fee payments led to a cost reduction of about 50%. The cost of processing a passport payment decreased from about PKR 200–250 (\$2–2.5) to about PKR 100 (\$1). In Cambodia, the introduction of mobile money as a mode of payment by the Ministry of Public Works and Transport (MPWT) led to a growth in revenue from 60 billion riel (\$14.8 million) in 2017 to 150 billion riel (\$37 million) in 2019).¹⁵

In times of crisis such as the coronavirus outbreak, mobile services have proven to be critical in keeping people connected, enabling business continuity and preventing service interruption. In response to the pandemic, the mobile sector took actions such as disseminating health and public-awareness messages, mobilising resources to meet rising demand and facilitating access to services through tariff discounts.¹⁶

Beyond the mobile ecosystem itself,¹⁷ mobile technologies enable the growth and digital transformation of other sectors such as agriculture, health and education. As acknowledged by the Bangladesh Planning Commission in their 8th Five Year Plan (8FYP), with the COVID-19 pandemic "*ICT became the lifeline for finance, education, agriculture, health, skill and employment*".¹⁸ The digital transformation of these sectors directly contributes to the objectives as set out in the 8FYP, such as achieving higher growth and reducing poverty.

- 12 Access to educational platform: http://konnect.edu.bd/; http://muktopaath.gov.bd/; http://www.teachers.gov.bd/
- 13 Kaye T., Groeneveld C., Bashir A. (2020). Monitoring distance education: A brief to support decision-making in Bangladesh and other low- and middleincome countries.
- 14 ITU (2019). Economic contribution of broadband, digitization and ICT regulation: Econometric modelling for Asia-Pacific.
- 15 GSMA (2020). Digitalising person-to-government payments.
- 16 GSMA (2020). Keeping Bangladesh connected: The role of the mobile industry during the COVID-19 pandemic.
- 17 The mobile ecosystem consists of mobile operators, infrastructure service providers, retailers and distributors of mobile products and services, handset manufacturers, and mobile content, application and service providers.
- 18 Bangladesh Planning Commission (2020). 8th Five-year plan July 2020 June 2025. Page 652.



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Mobile services can help boost agricultural productivity. Through SMS, data and voice services, mobile devices can provide farmers with valuable information on prices for crops across markets, weather forecasts and agronomic advice. Furthermore, Internet of Things (IoT) connectivity between devices such as sensors and drones optimise production processes and growth conditions. For example, agriculture value-added services such as the Bangladeshi app iFarmer provides farmers with new sources of income by facilitating access to buyers and financial services.^{19,20}



In a similar way, mobile adoption is also positively associated with better health outcomes. By improving communication between health practitioners and their patients, mobile connectivity supports increased treatment adherence and facilitates telemedicine for patients living in remote areas. During the pandemic, Bangladesh saw a surge in demand for telemedicine leading to the establishment of 15 digital healthcare providers.²¹



19 iFarmer: https://www.ifarmer.asia/home

- 20 UNCDF (2020). Agile in Response: How a Bangladeshi start-up is revolutionizing digitization in the farming sector.
- 21 GSMA (2021). Health systems, digital health and COVID-19: insights from Bangladesh, Myanmar, Pakistan, Benin, Nigeria and Rwanda.

1.3 Taxes and regulatory fees on the mobile sector

Mobile consumers and operators are subject to various taxes and fees in Bangladesh. While some are general taxes and fees applicable to all sectors of the economy, most are specific to the mobile sector. Furthermore, for some general taxes such as the corporate tax and the minimum turnover tax, a specific and higher tax rate applies to the mobile sector.

The table below outlines the different taxes and regulatory fees imposed on mobile consumers and operators. Sector-specific taxes and general taxes with a higher rate for the mobile sector are highlighted in red.

Table 2

Key taxes and regulatory fees paid by mobile consumers and operators (2020-21)

Consumer taxes	
Value Added Tax (VAT)	
Voice and SMS	15% on base tariff and SD (effective rate: 17.25%) ²²
Data	5% on base tariff and SD (effective rate: 5.75%) ²²
SIM cards	BDT 200 (\$2.4), per SIM card
Excise duties	
Supplementary duty (SD) on mobile services	15% on base tariff
Surcharge on services purchased through mobile airtime (voice, SMS, MMS, data, value-added services, mobile apps, etc.)	1% on base tariff or service value
SIM card replacement tax	BDT 200 (\$2.4), per SIM card (applies when a mobile user replaces a SIM card due to migration from one operator to another, SIM card lost, technology upgrade and SIM card being damaged)
Revenue sharing of international outgoing calls	30% on retail tariff less the carrier charge
Customs duties	
Handsets	Smartphones: 25% [Total tax incidence: 57.31%]; Mobile handsets excluding smartphones : 10% on CIF value [Total tax incidence: 35.47%] ²³
SIM cards	25% on cost, insurance and freight (CIF) value

22 The VAT effective tax rate is higher than the nominal rate due to the fact that the tax base includes the supplementary duty in addition to the base tariff value.
23 In addition to custom duties, imported mobile handsets are subject to other taxes: advance income tax (2%), advance trade VAT (5%), regulatory duty (0 – 3%) and VAT (15%). As a result, the total tax incidence on imported mobile handsets varies from 35% to 57%. Source: Bangladesh customs, duty calculator, visited on 16 March 2021.

Operator taxes and regulatory fees

Corporation tax	
Corporate tax	45% (40% if publicly traded company) on profit before tax
Minimum turnover tax	2% on gross receipts.
Regulatory fees	
Annual licence fee (2G, 3G, 4G)	BDT 50,000,000 (\$590,000) per licence
One-off license acquisition fee (2G, 3G, 4G)	BDT 100,000,000 (\$1.2m) per license
Social Obligation Fund (universal service fund - USF)	1% on annual gross revenue
Revenue sharing with BTRC	5.5% on annual gross revenue
Spectrum fees	
One-off	Varies by auction
Annual	Formula based
Customs duties	
Network equipment	1 - 25% on CIF value, depending on equipment type
Employment taxes	
Personal income tax	0% - 25% on taxable income, varies with income band
Workers profit participation	5% on gross receipts
Perquisite tax	45%/40% on amounts in excess of maximum perquisite limit of BDT 550,000 per employee per year
Other taxes	
Local taxes and fees (ex: display tax, tower tax, etc.)	Various rates
Withholding taxes	
Withholding tax	Various rates
Withholding VAT	Various rates

In addition to the above taxes and fees, the current taxation policy does not recognise some business expenses. As a result, the tax burden on the mobile sector is higher than 44% of total sector revenue.

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Notwithstanding the high historical tax burden on the mobile sector, sector-specific taxes on consumers and operators have increased even more over the past two years. These tax increases raise the affordability barrier, making it more difficult for low-income households to access mobile connectivity. They also negatively impact the investment capacity of mobile network operators to expand and upgrade their networks.

Table 3

Sector-specific tax increases (2018 - 2021)

	FY 2018-19	FY 2019-20	FY 2020-21	
Minimum turnover tax	0.75%	2%	2%	on gross receipts
Supplementary duty (SD) on mobile services	5%	10%	15%	on base tariff
SIM card replacement tax	BDT 100	BDT 200 🔺	BDT 200	per SIM card
Customs duty on smartphones	10%	25%	25%	on CIF value



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1.4 Tax contribution of the mobile sector

The total tax contribution of the mobile sector for 2019 is estimated at BDT 119 billion (\$1.4 billion). This represents 44% of total mobile-sector revenue.²⁴

In addition to annual taxes and regulatory fees, the mobile sector also contributes to one-off spectrum licence fees for 2G, 3G, 4G and technology neutrality conversion. When annualised over the licence period, total payments for these one-off fees represent BDT 13 billion per year (\$163 million – 5% of revenue, 2019). Taking this into account, the total tax contribution of the mobile sector represents 49% of revenue (\$1.6 billion).

The Bangladesh mobile sector makes a large contribution in taxes and fees relative to its economic footprint. While mobile market revenue accounted for 1.1% of Bangladesh's GDP, the sector's tax and fee payments accounted for around 4.4% of total government tax revenue (2019). This means that the mobile tax contribution is 4.2 times its size in the economy.²⁵

The tax contribution of the mobile sector in Bangladesh is substantially higher than the Asia Pacific average and any other region (see figure below). Globally, Bangladesh has the third-highest tax burden (44%) on the mobile sector of any country.²⁶

Over half of mobile-sector tax payments are for taxes specific to the mobile sector (25% of revenue), which are levied on mobile operators and consumers in addition to other, economy-wide, general taxes (19% of revenue).²⁷ As shown in the figure below, the level of sector-specific taxes in Bangladesh is almost twice the average of the Asia Pacific, MENA and Sub-Saharan Africa regions. The high level of sector-specific taxes is driven by the greater proportion of sector-specific taxes on operator revenues and profits.

- 24 As per GSMA methodology, the total tax contribution of the mobile sector is the sum of payments made by mobile network operators for annual taxes and annual regulatory fees. See table 2 for full list of taxes and fees. Withholding tax payments and one-off payments are excluded from this total tax contribution.
- 25 Bangladesh GDP (2019): \$302,571,254,131. Source: World Bank databank. Bangladesh tax revenue: BDT 2,259 billion (\$32 billion) for 2019 calendar year. Average estimated amount based on 2018-19 and 2019-20 financial year tax revenue. Source: Ministry of Finance (2020). Annual financial statement 2020-21.
- 26 Based on payments of recurring taxes and fees expressed as a percentage of revenue for 86 countries. Source: GSMA (2019). Rethinking mobile taxation to improve connectivity.
- 27 General taxes are taxes that apply to all sectors of the economy such as VAT and corporate tax. Sector-specific taxes are taxes and fees paid by mobile consumers and operators in addition to general taxes such as excise duty on mobile services and taxes on mobile sector revenue. Sector-specific taxes include the portion of general taxes specific to the mobile sector (i.e. corporate tax and minimum turnover tax rate above the general rate of 25% and 0.5% respectively).



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Figure 3

General taxes and fees vs mobile sector-specific taxes and fees (as percentage of mobile sector revenue – 2019)²⁸

Source: GSMA analysis and operator data



General Taxes and Fees Sector-specific Taxes and Fees NOTE: totals may not add up due to rounding

The mobile sector is a large contributor to government tax revenue. In 2019, the sector's tax and fee payments accounted for around 4.4% of total government tax revenue.²⁹ The largest contributions come from corporation taxes (29% of the total tax payments), VAT (25%) and excise duties on mobile services (20%).³⁰ A significant share of corporation tax payments is due to the higher rates of corporate tax and minimum turnover tax applied to the mobile sector.

²⁸ Bangladesh (2019), regional averages (2017).

²⁹ Bangladesh tax revenue: BDT 2,259 billion (\$32 billion) for 2019 calendar year. Average estimated amount based on 2018-19 and 2019-20 financial year tax revenue. Source: Ministry of Finance (2020). Annual financial statement 2020-21.

³⁰ See table 2 above for the list of taxes included under each tax category.

Figure 4

Tax categories as a percentage of overall tax revenues from the mobile sector

Source: GSMA analysis and operator data



The largest share of mobile sector tax contributions (83%) are paid to the National Board of Revenue (NBR). In addition to these taxes, the mobile sector also contributes to regulatory fees levied by the Bangladesh Telecommunication Regulatory Commission, representing 17% of total tax payments.³¹

Figure 5

Breakdown of tax and fee payments by recipient authority





31 Regulatory fees paid to BTRC include: annual licence fees for 2G, 3G and 4G; BTRC revenue sharing (5.5% of revenue); Social Obligation Fund (1% of revenue) and revenue sharing of international outgoing calls (30% on retail tariff less carrier charge).

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2. Call to action: Tax reform priorities to boost digital inclusion

Mobile connectivity is a powerful tool to drive sustainable growth, reduce poverty and transform other sectors such as healthcare and education. Connectivity is critical to achieve Digital Bangladesh objectives, and mobile networks, as the main provider of broadband connectivity, play a vital role in the transition to a digital economy and society. As described above, mobile connectivity is a powerful tool to drive sustainable growth, reduce poverty and transform other sectors such as healthcare and education. Against the backdrop of COVID-19, mobile services enable a faster recovery by allowing governments, businesses and citizens to remain connected and to guarantee economic activity.

While 90 million Bangladeshis are using mobile services, 46% of the population remains unconnected (2020). Furthermore, 67% of Bangladeshis are not using mobile internet. The efforts to reach the unconnected are more challenging and require targeted actions, as the unconnected are typically less able to pay and use mobile services.

Creating a supportive regulatory environment is one of the levers to improve digital inclusion. In particular, the establishment of a tax framework conducive to digital development is key, as it impacts the affordability barrier and investment capacity of the mobile sector. Tax policy should support the Digital Bangladesh objectives and especially the Connecting citizens priority.

Establishing a conducive tax framework is part of the Digital Bangladesh Vision. Indeed, priority interventions of the Information and Communication Technology (ICT) Division include the "*revision of tax, VAT and surcharge to decrease internet price*", to be implemented during financial year 2022. This contributes to a central point of the Domino Effect Action Agenda: "*Universal affordable access to internet broadband connectivity*".³²

As highlighted by the 8FYP, the digital economy should be leveraged for higher growth and new employment opportunities. The 8FYP states that the heavy taxation of ICT services has constrained the use of smartphones and internet services, and limited the private-sector-led supply of ICT infrastructure and lowered service quality. Based on this, the 8FYP concludes that "the reform of ICT taxation is an essential policy reform that will provide a substantial boost to GDP growth and employment in Bangladesh".³³

Internationally accepted principles of taxation provide a reference point for developing an optimal tax framework for Bangladesh.

³² Bangladesh Planning Commission (2020). 8th Five-year plan July 2020 – June 2025. Pages 680-681.

³³ Bangladesh Planning Commission (2020). 8th Five-year plan July 2020 - June 2025. Page 709.

Figure 6

Principles of taxation applying to the mobile sector

Source: IMF et al (2011). Supporting the development of more effective tax systems; ITU (2013). Taxing telecommunication/ICT services; Bird & Zolt (2003). Introduction to tax policy design and development; Tanzi & Zee (2001). Tax policy for developing countries; World Bank et al (2011). Telecommunications regulation handbook; Directive 2002/20/EC on the authorisation of electronic communications networks and services (2002); IMF et al (2016). Enhancing the effectiveness of external support in building tax capacity in developing countries; IMF (2011). Revenue Mobilization in Developing Countries.



In light of these principles, the mobile sector tax framework should be reformed to accelerate Bangladesh's transition to a digital economy by:



The mobile sector tax framework should be reformed to accelerate Bangladesh's transition to a digital economy. GSMA



The mobile sector is subject to a higher level of tax burden compared to other economic sectors and the average level applied in Asia

In 2019, the mobile sector contributed BDT 119 billion (\$1.4 billion) in taxes and fees to government revenue with corporation taxes representing about a third of total tax contributions (29%). The mobile sector is subject to the highest corporate tax rate for publicly traded (PT) and non-publicly traded (NPT) companies (40% and 45% of profit), compared to the general corporate tax rate of 25% and 32.5% of profit, respectively. The corporate tax rate applicable to the mobile sector is about twice the average corporation rate in Asia (21.55%).³⁴

Despite its positive externalities and being treated as emergency service during the COVID-19 pandemic, the mobile sector is subject to a corporate tax rate similar to the tobacco industry (45%), an industry with significant negative externalities, and higher than the banking sector (40%) and general rate (25% and 32.5%). While the general corporate income tax rate was reduced over the past ten years, the rate applicable to the mobile sector increased for PT companies and remained unchanged for NPT companies.³⁵

Furthermore, the mobile sector is also subject to the highest minimum turnover tax rate (2% of gross receipt) while a rate of 0.5% applies to the general economy. This rate is also higher than the one applied to the tobacco industry. The mobile sector should be treated equally to the rest of the economy, in particular since it unlocks large socio-economic benefits for companies, citizens and governments.

- 34 KPMG (2021). Corporate tax rates table, visited on 19 March 2021.
- 35 Over last ten years, the general corporate tax rates reduced from 27.5% to 25% (in 2015-16) for PT companies; and from 37.5% to 35% (in 2014-15) and 32.5% (in 2020-21) for NPT companies. Over the same period, corporate tax rate on the mobile sector increased from 35% to 40% (in 2013-14) for PT companies, and remained unchanged for NPT companies (45%). Source: Lal Bahadur Adhikary (2020). Income tax manual Part 1 & 2, based on Income Tax Ordinance 1984.

Figure 7

Corporate tax and minimum turnover tax rates (2020-2021)

Source: Bangladesh, National Board of Revenue, Finance Act 2020.



These sector-specific corporate tax and minimum turnover tax apply in addition to other taxes and regulatory fees specific to the mobile sector, such as the revenue sharing fee (5.5% of revenue) and contribution to the Social Obligation Fund (1% of revenue). Overall, sector-specific taxes and fees represent 25% of total sector revenue (2019). The high tax burden on mobile operators negatively impacts mobile sector investment capacity. Aligning mobile sector taxation levels with the rest of the economy would incentive investments in mobile networks.

Tax reforms to align the tax contribution of the mobile sector with the rest of the economy:

- Reduce the minimum turnover tax from 2% to 0.5% to align it with the rest of the economy
- Reduce the corporate tax for non-public mobile companies from 45% to 32.5% and for public mobile operators from 40% to 25%

These tax reforms would improve Bangladesh's telecommunication sector competitiveness and encourage investments in mobile infrastructure required for the country's digital transformation. While the mobile sector is a key contributor to the Exchequer in Bangladesh, it is a capital-intensive sector that delivers significant benefits to other economic sectors as well as citizens. Therefore, it is vital to align the minimum turnover tax rate and the corporate tax rate to the rates for the general category.

2.

Streamlining the tax assessment mechanism



The mobile sector is subject to complex tax and regulatory processes

According to the World Bank's Doing Business study (2020), Bangladesh is ranked 151 out of 189 countries in terms of ease of tax payments, with a score of 56.1 out of 100. This highlights the need for Bangladesh to review its tax system in order to improve its business environment.³⁶

According to the best-practice tax principles, tax systems should be simple and certain. Uncertainty created by the retrospective application of tax rules impacting income of previous years or by unexpected changes to the list of legitimate tax rebates is not conducive to a business-friendly environment. Reforms of the tax system should create certainty and simplicity for the taxpayer and the revenue authority.

An effective Alternative Dispute Resolution (ADR) mechanism facilitates the resolution of tax disputes and provides a framework for a trustworthy relationship between taxpayers and the revenue authority. As currently designed, the ADR is not fully effective as, for example, it could be interrupted by other government bodies. A revision and update of the current ADR based on existing learnings would turn it into an effective and useful mechanism for all parties.

The current tax system does not allow amortisation of certain business expenses despite being recognised as allowable for amortisation by the International Financial Reporting Standards (IFRS). As a result, the mobile sector and other sectors of the economy are unable to benefit from such amortisation. This increases the effective tax burden on the mobile sector. For example, the Third Schedule of Income Tax Ordinance 1984 does not include a provision to amortise intangibles such as customer acquisition and right-of-use asset, in line with IFRS except for spectrum licence fees.

As per the provisions of Section 30 of the Income Tax Ordinance, regardless of whether the business makes a loss or profit, disallowed expenses must be considered separately as income and are subject to regular corporate tax (45% or 40%). The current taxation policy does not recognise some business expenses, which increases the mobile sector tax burden.

Double taxation avoidance agreements (DTAA) exist between Bangladesh and 33 countries. Despite the existence of a DTAA, non-resident service providers, without any permanent establishment in Bangladesh, have to collect a tax exemption certificate from NBR. Non-resident service providers operating from a country having DTAA with Bangladesh should be treated under that treaty and should not be required to collect a non-deduction certificate from NBR. Instead, they should submit the residential certificate from their home country.

36 World Bank and PwC (2020). Paying taxes 2020.



Tax reforms for a simpler and more efficient tax system:

- Reform aspects of the tax system generating uncertainty
- Review the Alternative Dispute Resolution (ADR) mechanism
- Align the amortisation of intangible assets with International Financial Reporting Standards (IFRS)
- Reconsider business expenses treated as allowable expenditure

A simpler, more certain tax system would reduce the cost of tax collection for the revenue authority and the mobile sector. Furthermore, it would facilitate the attraction of investment for the realisation of the Digital Bangladesh agenda. GSMA

3.

Reducing sector-specific taxes on mobile consumers

Mobile consumers face a high-level of sector-specific taxes in addition to general taxes. This creates additional barriers to digital inclusion, for low-income households in particular.

Mobile improves productivity, provides access to life-changing services and ensures the resilience of economies, such as during the COVID-19 pandemic. Supporting adoption and usage of mobile services directly contributes to Digital Bangladesh objectives and the government's objective to eradicate extreme poverty by 2030. Despite the positive externalities generated by mobile technology, sector-specific taxes penalise the use of mobile services in the same way that use of tobacco, a product with significant negative externalities, is penalised.

For an unconnected consumer to obtain and use their own mobile phone, the initial cost can be a significant barrier. The SIM tax of BDT 200 (\$2.3) per SIM card makes it more difficult for a new user to benefit from mobile connectivity. Removing this SIM tax would accelerate the connection of the 46% of Bangladeshis who are unconnected to get online. It is especially important as mobile connectivity is now penetrating the low-income groups.

Mobile consumers face sector-specific taxes on their mobile usage in addition to VAT (5% for mobile data, 15% for voice, SMS and other mobile usage). As a result, the total effective tax rate is 33.25% on voice, SMS and others; and 21.75% on data.³⁷ These sector-

specific taxes increase the cost of mobile services, reducing usage and limiting the benefits offered by mobile connectivity.

Removing the supplementary duty (SD, 15%) and surcharge (SC, 1%) on mobile internet would help overcome the affordability barrier and support adoption of mobile services. To facilitate compliance and reduce the negative short-term impact on government tax receipts, the elimination of SD and SC could be paired with a reinstatement of 15% VAT on data. Tax administration would be improved by removing operational complexities linked to the calculations of various VAT rates on mobile services. The removal of SD (15%) and SC (1%) and reinstatement of VAT (15%) on mobile internet would reduce the consumer tax burden from 21.5% to 15%. Such a measure would trigger greater usage of mobile internet and improve tax administration. Furthermore, this measure would align the tax burden on mobile internet to that of fixed internet, not subject to SD and SC.

An EY and GSMA study (2018) demonstrates that a reduction of consumer taxes would generate higher government tax revenue and GDP in the medium term. This would result from the expansion of the mobile sector and the induced growth in productivity.³⁸

 ³⁷ Total effective tax rate on voice, SMS and others (MMS, VAS services excluding data and any other fees paid services) (33.25%) = VAT (17.25% - effective rate) + SD (15%) + SC (1%).
 38 EV (15%) + SC (1%).
 39 EV (2000) Defermine methile context tay trace in Dependence.

³⁸ EY, GSMA (2018). Reforming mobile sector taxation in Bangladesh.

Mobile users can use their prepaid airtime to buy non-telecom digital services such as applications and tickets. However, as prepaid mobile airtime is inclusive of sector-specific taxes (SD and SC) such transactions are more expensive than payment through alternative channels such as credit card or mobile wallet (table 4). Removing SD and SC on Direct Operator Billing (DOB) services (i.e., non-telecom services) would support the expansion of the mobile ecosystem and apply the same rules to all payment channels.

Table 4

Cost of digital (non-telecom) services per payment method (2020-21)

Payment method (provider)	Credit card (bank)	Wallet (mobile financial service provider)	Airtime (mobile operator)
Value of digital service	100	100	100
Supplementary duty (15%)	/	/	15
VAT (15%)	15	15	17.25*
Surcharge (1%)	/	/	1
Total cost for consumer	115	115	133.25

* The VAT effective tax rate on mobile airtime is 17.25% as its tax base includes the supplementary duty in addition to the service value.

Tax reforms for a simpler and more efficient tax system:

- Remove the SIM tax (BDT 200)
- Eliminate the supplementary duty (15%) and surcharge (1%) on mobile internet
- Remove the supplementary duty (15%) and surcharge (1%) on the purchase of non-telecom services using airtime to align with other purchase methods

Removing consumer sector-specific taxes would accelerate digital inclusion by facilitating access for the 75 million Bangladeshis still unconnected. Such measures would also directly contribute to the government's Digital Bangladesh and poverty eradication objectives.



3. Economic impact of mobile sector tax reforms

This section presents the economic impact that a reduction of corporate tax and minimum turnover tax would have on the mobile sector and the wider economy.

Despite its positive externalities, the mobile sector is subject to a higher minimum turnover tax and the corporate tax rates than the general rate applicable to the rest of the economy, as highlighted in the previous section. To assess how a reform of these taxes would impact the economy, the following tax scenarios have been assessed quantitatively:

- Reduction of the minimum turnover tax from 2% to 0.5%
- Reduction of the corporate tax for non-public mobile companies from 45% to 40% and for public mobile operators from 40% to 35% ³⁹

A tax reduction leads to a reduction of the effective price of mobile services and an increase in investment in mobile networks.⁴⁰ As a result, households and businesses increase their demand for mobile services by adopting mobile services and increasing their usage. Higher mobile penetration leads to increased productivity, GDP, household incomes, employment and investment across the economy. Due to the expansion of the mobile sector and subsequent growth in the wider economy, government tax receipts increase. Although a reduction in the tax rate results in an initial, short-term decline in tax receipts, the government can recover this in the medium-term through the resulting expansion in the mobile industry and the rest of the economy.

Regarding reforms affecting profit tax, an ITU report estimates that a 50% reduction in profit tax affecting the business sector is associated with an increase of fixed and mobile investment of nearly 14%.⁴¹

³⁹ It is expected that a larger reduction in corporate tax, such as the recommendation presented in section 2, would lead to higher positive impacts on the mobile sector, the wider economy and total tax receipts for the government.

⁴⁰ Effective prices represent the value for money achieved by subscribers; effective price changes are therefore wider ranging than pure price changes. The effective price subscribers face can be said to decrease if they receive a better quality or quantity of service for the same price.

⁴¹ ITU (2021). The impact of policies, regulation and institutions on ICT sector performance.

Figure 8

Overview of modelling approach

Source: GSMA analysis





3.1 Reducing the minimum turnover tax on the mobile sector

Based on the rationale presented in section 2, a model of the Bangladesh mobile sector and economy has been created to quantify the impact of reduction of the minimum turnover tax applied to mobile operators from 2% to 0.5%. Such reduction would align the tax rate applicable to the mobile sector with the general rate.

The reduction in minimum turnover tax will lead to a reduction of effective price by 1.5% from 2021 onwards. The tax scenario is forecast to have the following impacts compared to a baseline scenario of no change in current levels of taxation:⁴²

- **New connections:** there would be an additional 1.4 million unique subscribers, or 2.5 million mobile connections by 2025.⁴³ This is equivalent to an increase of around 0.8% in unique subscriber penetration (1.5% in total connections).
- **Mobile market revenue:** total market revenue would increase by \$35 million (1.1%) by 2025. This would be driven by additional revenues from an increased number of connections, and higher overall usage, which offset the reduction in pricing from the tax reform.
- **GDP increase:** total GDP would increase by \$476 million (0.18%) compared to the baseline, as the price and productivity effects lead to a chain reaction of expansion across the economy.
- **Tax revenue impact:** this scenario would have an initial net cost to the Government of \$22 million in the first year (2021). However, the subsequent expansion of the mobile sector, and significant growth in the wider economy, mean that, by year 2 (2022), the annual tax receipts becomes positive. The gain in tax revenue is potentially about \$47 million per annum by 2025.

⁴² All figures represent the annual variance between the baseline scenario and the tax reform scenario, five years after the reform (2025). These results are not cumulative.

⁴³ Subscribers differ from connections such that a unique user can have multiple connections.



Figure 9

Annual impacts of reducing the minimum turnover tax, 2025

Source: GSMA analysis



3.2 Reducing the corporate tax on the mobile sector

This scenario models a reduction of the corporate tax for private mobile operators from 45% to 40% and for public mobile operators – from 40% to 35%. The results of this tax scenario are based on an EY and GSMA study (2018) modelling the impact of this tax change over 2019-2023.⁴⁴ It is expected that a larger reduction in corporate tax, such as the recommendation presented in section 2 (reduce of the corporate tax for non-public mobile companies 45% to 32.5% and for public mobile operators from 40% to 25%, would lead to higher positive impacts on the mobile sector, the wider economy and total tax receipts for the government.

The reduction in corporate tax will lead to a reduction of effective price by 0.5% from 2019 onwards. The tax scenario is forecast to have the following impacts compared to a baseline scenario of no change in current levels of taxation:⁴⁵

- **New connections:** there would be an additional 507,000 unique subscribers, or 835,000 million mobile connections by 2023.⁴⁶ This is equivalent to an increase of around 0.3% in unique subscriber penetration (0.5% in total connections).
- **Mobile market revenue:** total market revenue would increase by \$42 million (1.2%) by 2023. This would be driven by additional revenues from an increased number of connections, and higher overall usage, which offset the reduction in pricing from the tax reform.
- **GDP increase:** total GDP would increase by \$131 million (0.06%) by 2023 compared to the baseline, as the price and productivity effects lead to a chain reaction of expansion across the economy.
- **Tax revenue impact:** this scenario would have an initial net cost to the Bangladesh Exchequer of \$19 million in 2019. However, the subsequent expansion of the mobile sector, and significant growth in the wider economy, mean that, by year three, the annual impact becomes positive. The gain in tax revenue is potentially about \$14 million per annum by 2023.

⁴⁴ EY, GSMA (2018). Reforming mobile sector taxation in Bangladesh.

⁴⁵ All figures represent the annual variance between the baseline scenario and the tax reform scenario, five years after the reform (2023). These results are not cumulative.

⁴⁶ Subscribers differ from connections such that a unique user can have multiple connections.



Figure 10

Annual impacts of reducing corporate tax, 2023

Source: EY, GSMA (2018). Reforming mobile sector taxation in Bangladesh.



Appendix A – Methodology

This appendix describes the methodology applied to calculate the economic impacts resulting from the tax changes presented under section 3.1. The economic impacts presented under section 3.2 are based on a methodology presented in appendix of the EY and GSMA study (2018) from which they are extracted.⁴⁷ It should be noted that, as the tax scenarios presented under 3.1 and 3.2 are modelled based on different time frames and assumptions, results might not always align.

The model is based on telecom and macroeconomic data from the GSMA Intelligence database, mobile network operators, the Bangladesh National Board of Revenue, the World Bank and the International Monetary Fund. Price elasticities of demand and pass-through rate are based on a literature review.

The analysis explores the effects of a reduction of the minimum turnover tax rate from 2% to 0.5%, compared to a baseline scenario without the tax change. The difference between the scenario forecasts and the baseline is effectively the additional impact resulting from the tax policy reform. Figures 8 describes the steps followed by the modelling approach.

The model covers the period 2019-2025 with the tax change becoming effective from 2021. It has been assumed that 100% of the tax savings resulting from the tax reform would be passed on to subscribers in the form of lower effective prices (pass-through). This is in line with the pass-through of similar tax reforms.

The price elasticity of demand (PED) measures the change in quantity demanded following a change in price. Assumptions on the PED are based on an extensive literature review. The following PED of demand have been assumed:

- Usage elasticities: from -0.7 to -0.8 for voice and from -1.0 to -1.3 for data
- Ownership elasticities: from -0.8 to -1.0 for mobile services
- Technology migration elasticities: from -0.2 to -0.3 for data

At the macro-economic level, the GDP multiplier estimates the wider economic impacts of the expansion of the mobile sector. For every 1 percentage point increase in mobile and mobile broadband connection penetration, a gain of 0.11 percentage points in GDP growth is estimated. This is a conservative assumption. The government tax revenue multiplier estimates the effect of a change in GDP on government revenue. Based on estimates from the IMF World Economic Outlook database, government revenue as a percentage of GDP vary from 8.82% to 9.9% between 2021 and 2025.

47 EY, GSMA (2018). Reforming mobile sector taxation in Bangladesh.





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