

# Developing Modern Logistics Systems in Bangladesh:

Opportunities For Private Sector  
and Policy Priorities

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**POLICY EXCHANGE**  
Catalyzing Growth Solution  
BANGLADESH



# PRESENTATION OUTLINE

1. Bangladesh's Development Aspirations, and Criticality of Trade and Investment
2. The Competitiveness Agenda, and Trade Facilitation Imperative
3. Logistics for Efficient Global Trade Integration: Growth Drivers
4. Current State of Logistics in Bangladesh: Ports, Railways, Roads, and Waterways and Why Investment is Important
5. Key Areas in Logistics Offering Investment Opportunities
6. Issues Requiring Priority Attention to Make the Sector More Investment-ready
7. Policy Priorities

# Bangladesh @ 50 is a Development Role Model



In just 5 decades of Independence, transitioned to Middle-Income Status



Bangladesh on track to become \$500 Billion Economy (SCB, IMF)



Aspirations for Upper Middle-Income Country by 2031 and Developed Country by 2041

Indicators	1971	2021
Gross Domestic Product (in US\$ billion)	9	409
Per Capita Income (in US\$)	137	2554
Life Expectancy (in years)	47	72
FOREX Reserve (in US\$ billion)	Nil	44
Fertility Rate (in number of children)	7	2
Agricultural Output (in tonnes per hectare)	1	5

Indicators	Bangladesh	India	Malaysia
Average GDP growth rate 2017-21 (%)	6.4	3.9	2.5
Life Expectancy (years)	72	67	75
Seats held by women in national parliaments(%)	21	14	15

# Enhancing Trade, Investment & Connectivity Will be Critical Drivers of Vision 2041 Aspirations



**US\$ 12,000+**  
Per Capita Income



**9.9%**  
Growth Rate



**3.0%**  
FDI to GDP



**36.9%**  
Private Investment to GDP



**US\$ 300 Billion+**  
Exports

Indicator	FY 21 (Achieved)	FY 22 (Achieved)	FY 25 (Target)	FY 41 (Target)
Gross Investment as % of GDP	31.01	31.68	36.59	46.9
Private Investment as % of GDP	23.7	24.06	27.35	36.36
FDI as % of GDP	0.3	1.01	3	3
Exports (in billion US\$)	40	52	56	300

# Competitiveness Key in Attaining Necessary Level of Trade, Investment, and Employment

## a. Ramping Up Export-led Growth /Economic Diversification

Concentration of Top 3 Manufactured Products in Bangladesh's Export Basket

Fiscal Year	Readymade Garments	Leather & Leather Products	Home Textiles
FY20	83.0	2.4	2.3
FY19	84.2	2.5	2.1
FY18	83.5	3.0	2.4
FY17	81.2	3.6	2.3
FY16	82.0	3.4	2.2
FY15	81.7	3.6	2.6
FY14	81.1	3.7	2.6
FY13	79.6	2.1	2.9
FY12	78.6	1.8	3.7
FY11	78.1	1.5	3.4

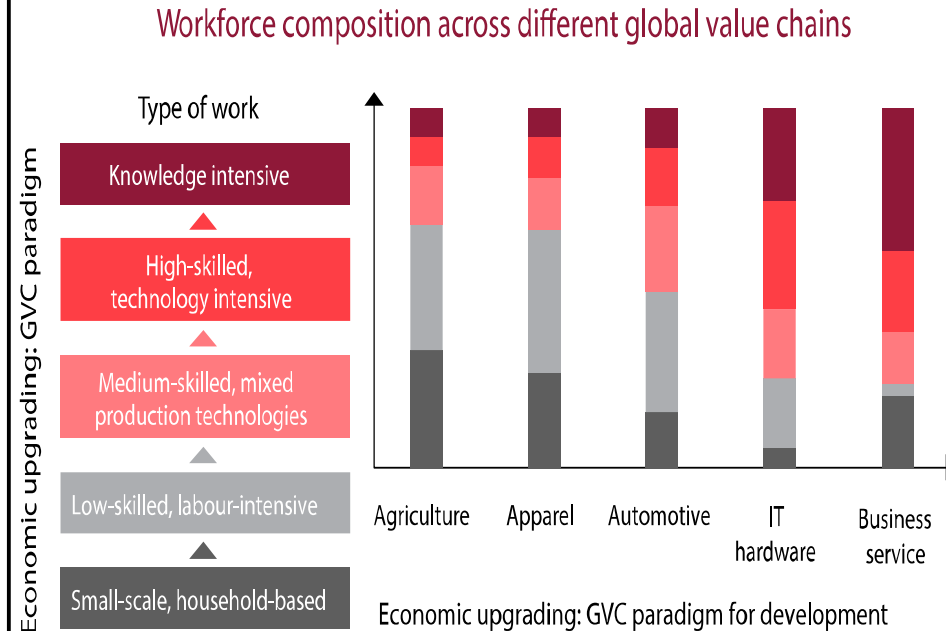
Source: Export Promotion Bureau

Share of Non-RMG Export vis-à-vis Other Asian Countries (2019)

Country	Agri	ICT
Bangladesh	4%	2.97%
Thailand	20.33%	16.29%
Malaysia	24.66%	40.03%

Source: UN Comtrade and Policy Exchange Estimates

## b. Value Chain Upgradation for Diversification

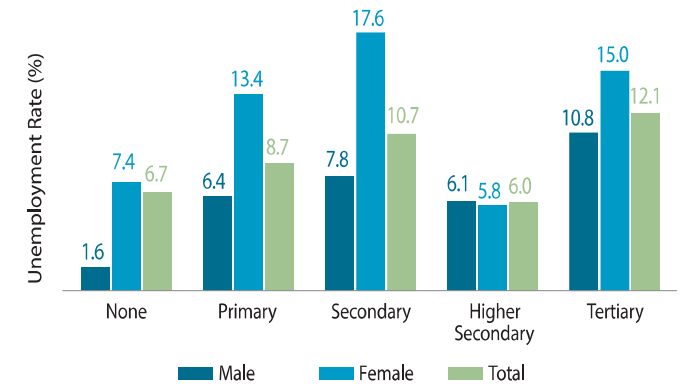


## c. Addressing Future

### Vulnerabilities in Global Markets

Countries	Current Rates Bangladesh as an LDC	Tariff Facing	Post-Graduation Tariff Rates (Average)
EU	0%		9.5%
Canada	0%		17%
China	0% in 97.5 percent products		16.2%
India	0%		8.6%
Japan	0% in more than 98 percent products		8.7%

## d. Creating More and Better Jobs



Source: Labour Force Survey 2015/16

Unemployment Rate among Youth (aged 15-29) by Education Attainment Level

# Trade Facilitation Emerging as a Critical Driver of Trade Competitiveness

TF refers to measures that aim to reduce the costs and barriers to trade, beyond traditional policy tools

Can include 'at-the-border' and 'behind-the-border' policies

Regulations for border clearance for goods

Trade/Connectivity Infrastructure

Compliances and standards

2% to 24% increase of transactions costs of a shipment's value due to weak TF environment

Helps ensure the predictability of operations and thus contribute to the competitiveness of a country.

Global economy could be US\$ 9 trillion bigger by 2030 with full implementation of WTO Trade Facilitation Agreement (TFA)

Can lower trade cost by an average of 14%

Lower middle and developing countries stand to benefit more



# Vietnam's Spectacular Export-led Growth Success Hugely Benefitted from its Improvements in Trade Facilitation

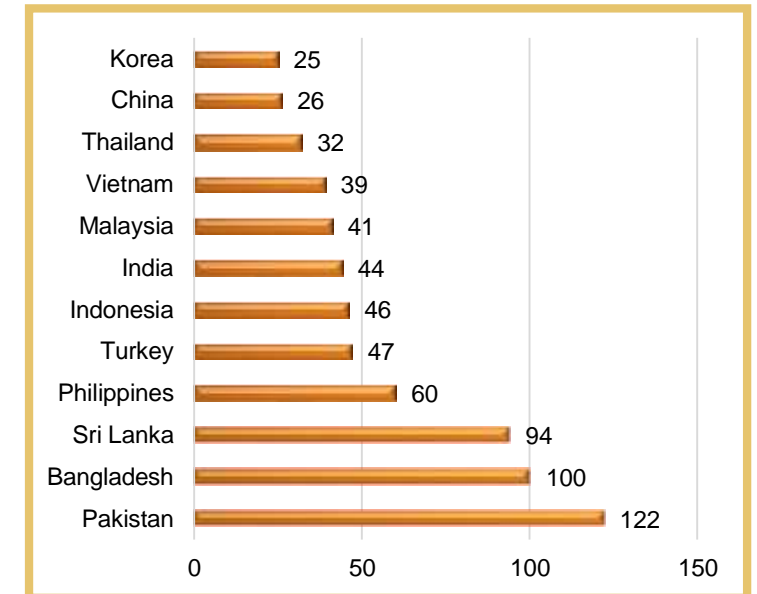
- Effect of TF visible, with Vietnam's trade growing remarkably.



- TF Policy Reforms involved:



Vietnam has rapidly moved up the Logistics Performance Index



Source: Logistics Performance Index (LPI)

# Modern Ports Will Help Bangladesh Secure Competitive Integration with Global Markets

## Enhances Connectivity

- Enhances regional connectivity and to global markets
- Enhanced road, rail and waterway connectivity to serve cargo hinterland
- Enhanced connectivity with ICDs, industrial zones and SEZs
- Enhances accessibility
- Greater Exposure to high quality products, services and processes

## Increases Capability

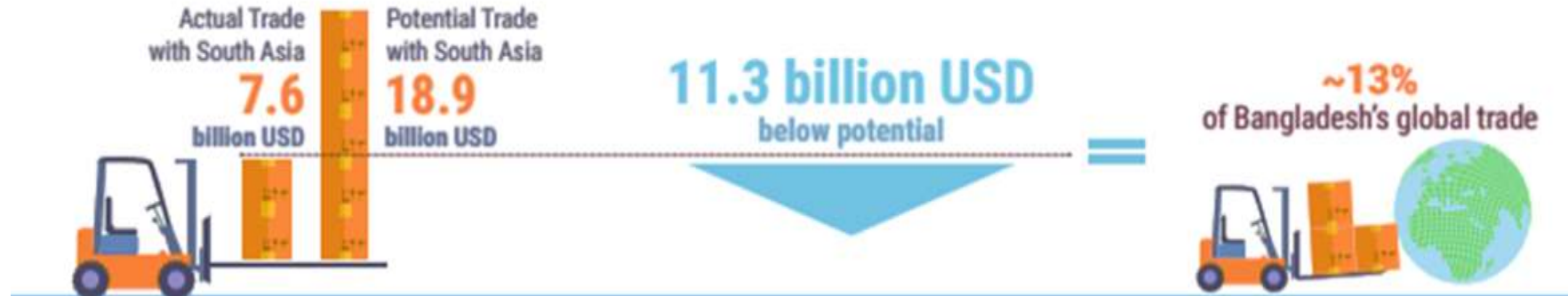
- Modern facility with ability to handle upsized vessels
- provision of value-added logistics services
- Improve vessel turnaround, productivity, container dwell-time
- Commitment to Health, Safety, Security and Environment
- Higher proliferation of technical capacity over time

## Boosts Competitiveness

- Sustainable and cost-effective supply chain solution
- Fostering Productivity
- Enables reduction in cost, time and complexity in accomplishing import and export activities



# Regional Trade Opportunities Loom Large but Requires Going Beyond Labor Cost-based Advantage



Export (Goods) to ASEAN Country wise (FY19-22)

In Million US\$							
FY	Philippines	Thailand	Vietnam	Indonesia	Singapore	Malaysia	Myanmar
2018-19	74.04	44.07	53.47	56.82	149.38	277.23	32.54
2019-20	78.47	35.46	48.16	51.42	95.10	236.37	28.31
2020-21	74.52	39.00	61.29	68.22	116.57	306.57	31.40
2021-22	101.98	44.05	92.77	78.58	127.12	337.81	38.89

Bangladesh imports goods worth nearly US\$7.0 billion from 10 ASEAN states (EPB 2020)

Bangladesh's exports to the ASEAN less than \$1.0 billion per annum

RCEP: The 15 member Block account for about 30% of global GDP (\$29.7 trillion), and 28% of global trade

# Logistics Expansion and Modernization Will be A Perquisite to Strengthen Export Competitiveness

## Logistics Performance Index 2018

Bangladesh is ranked 100 overall with a score 2.58 in LPI.

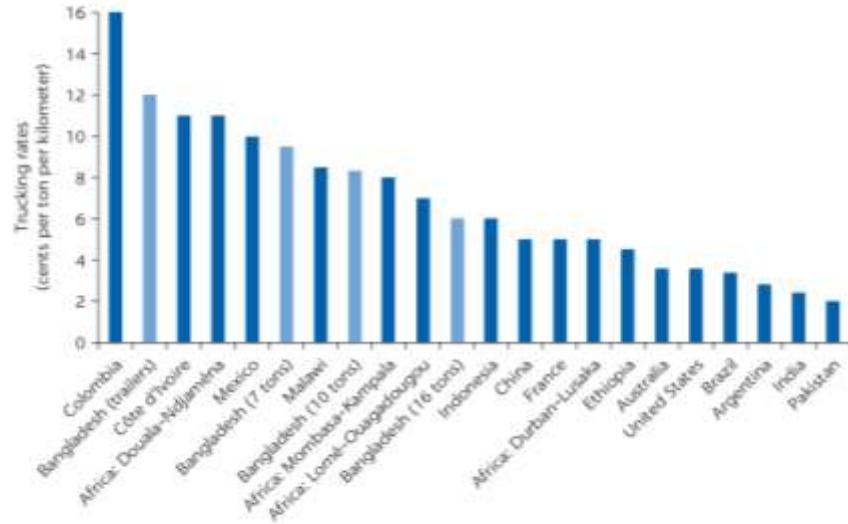
Bangladesh is ranked 102<sup>nd</sup> in logistics quality and competence.

On Infrastructure, Bangladesh is ranked 100; India (52), Vietnam (41) and Indonesia (54).

Country	Ranking	Score	Customs	Infrastructure	International Shipments	Logistics competence	Timeliness
Bangladesh	100	2.6	2.33	2.36	2.66	2.56	2.97
India	42	3.22	2.97	3.01	3.24	3.18	3.57
Indonesia	51	3.08	2.69	2.81	3.08	3.07	3.59
Vietnam	45	3.16	2.86	2.92	3.15	3.17	3.6
Singapore	5	4.05	4	4.14	3.72	4.08	4.34
Philippines	64	2.91	2.62	2.67	3.2	2.8	3.11

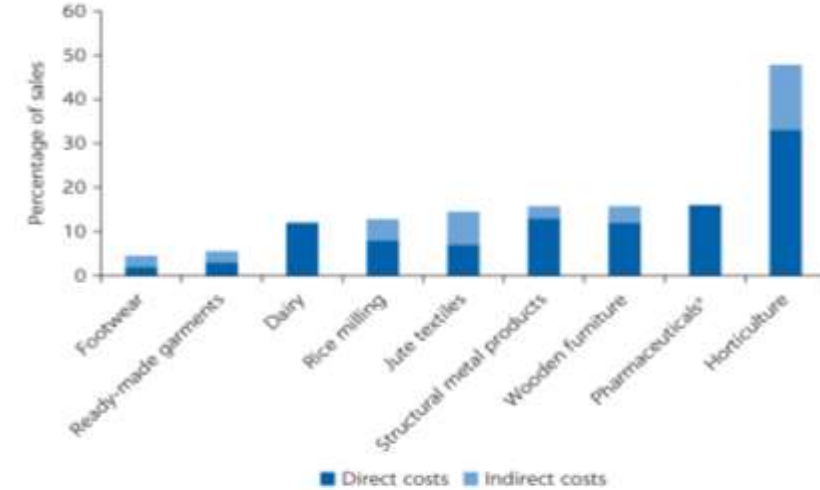
# Diversification Goals Will Require Bangladesh to Address High Trade Costs

Trucking rates in selected countries



Source: Teravaninthorn and Raballand 2009, ADB 2016, and World Bank.

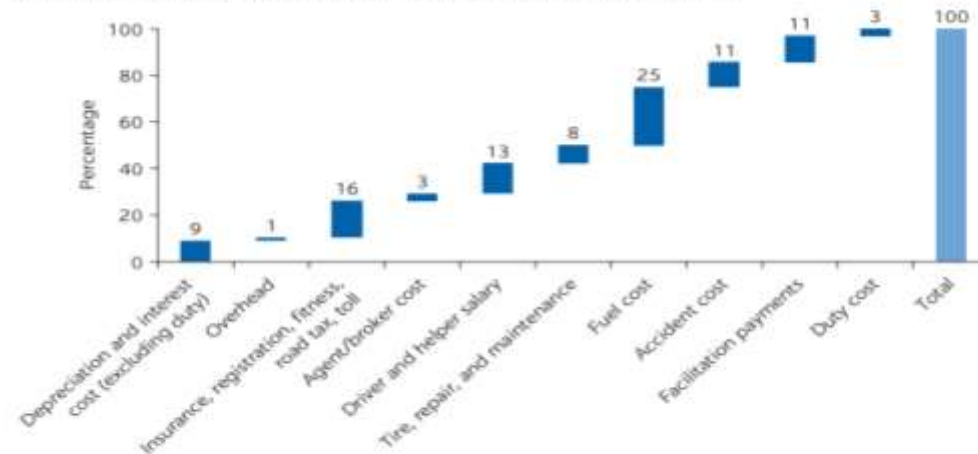
Logistics costs in Bangladesh, by industry



Source: World Bank analysis.

a. Logistics costs for the pharmaceutical industry include only direct costs, as firms did not provide the information required to estimate inventory carrying costs.

Breakdown of operating costs for seven-ton truck in Bangladesh



# Development and Modernization of Ports A Must to Support the Private Sector-led Growth Strategy



Chittagong port handles 98% bulk and 99% container cargo in the country



Traffic concentrated on Dhaka – Chittagong corridor having 70% share of container movement



Port-hinterland connectivity reliant on roads (96%), other modes capacity & competitiveness issues (Dhaka- Chittagong route, Rail: \$207-226; IWT: \$286-305; Road: \$295-305)



Dependence on roads unsustainable, road traffic to reach ~4.8 MTEUs by 2030 – beyond capacity



Tool Port with limited private participation – unlike other ports in the region adopting landlord model

## Logistics Performance Index 2018

Ranking	Country	Domestic Logistics Opportunities	International Logistics Opportunities	Business Fundamentals	Digital Readiness	Overall
1	China	8.54	9.75	7.06	7.25	8.5
2	India	8.01	7.23	5.96	6.74	7.21
5	Indonesia	6.34	5.95	5.93	6.47	6.17
11	Vietnam	5.02	6.01	5.48	5.75	5.55
18	Philippines	5	5.25	4.38	5.99	5.16
27	Pakistan	5.03	4.58	4.33	5.1	4.78
39	Bangladesh	4.99	4.38	3.44	4.38	4.44

## The Container Port Performance Index 2021

Country	Port	Rank
Bangladesh	Chittagong	341
India	Mundra	48
	Jawaharlal Nehru PORT	54
	Chennai	79
China	NINGBO	7
Vietnam	HAIPHONG	63

# Land Ports will be Critical Enabler of Regional Trade And Require Investment in Modernization



12 operational land ports (7 operated by BLPA & 5 operated through PPP – BOT mode)



Benapole land port handles 60% of the international trade by value



Congestion at Benapole land port due to differential tariff structure, favoring Benapole over other land ports



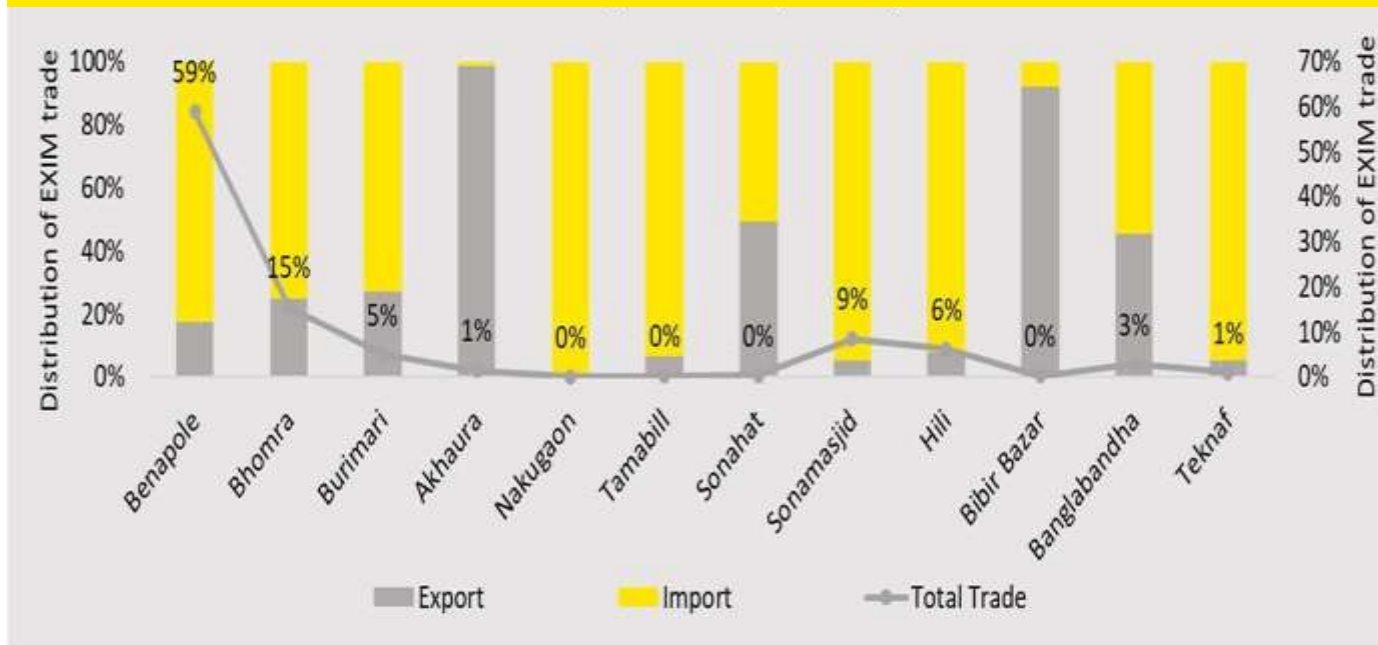
Average high import clearance time: 10.3 days : requires investments in infrastructure & services, reforms of procedures



## Key Investment Issues

- Requires expansion of infrastructure – Storage, parking area
- Digital infrastructure
- Exploring changes/harmonisation of tariff rates for land ports for select commodities
- Public investments /PPP prospects in customs modernisation, Risk Management system, single window clearance, automation
- Fast tracked implementation of MVA (BIN) covering land port routes
- Requirement of engagement with Indian Authorities for streamlining and avoiding duplication of procedures
- Exploring availability of other government agencies at land port

Distribution of trade by Land Port (2020-21) – In terms of values



# Road Sector Dominant Mode of Freight Transportation but Congestion and Quality Improvement Requires Greater Private Participation



Dominant mode of freight transport with 77% modal share (in BTKM) primarily due to network development and improvement



Greater Dhaka – Chittagong is central to both international and domestic freight movement; caters to 90% of freight handled at Chittagong Port



Maintenance and development primarily dependent on budgetary allocation - fell short by 40% for RHD roads in 2020-21 - requirement of USD 2.5 bn for FY22-26



Critical need for availability road transport services sector



## Key Investment Issues

- Quality maintenance through private participation required
- Adoption of enforcement technology for axle loads regulations
- Requirements for truck terminals, parking areas and lay bays on routes
- Greater private participation in road development and maintenance
- Dependence on budgetary allocation for both construction and maintenance: PPP can help
- BRTA capacity - issuance of licenses, vehicle fitness certificates, axle load enforcement: Third party solutions will help
- Conducive environment for load matching platforms – dissemination of data
- Expanding financing options - cash transactions for trucking business and requirement of trade license, absence of vehicle scrappage policy
- Expansion of insurance coverage for in transit goods and non-mandatory third-party Insurance -Motor Vehicle Act

# Waterways will be Critical Enabler of Regional Trade And Require Investment in Modernization



Navigable length limited to ~24% of total river network length (~24,000 kms)



Key nodes contributing Trade cargo -Chittagong Port - 79%, Mongla Port - 15%, Kolkata (India) – 6% (Imports constitute ~61% of total cargo handled)



Key commodities (domestic movement): Construction Material (58%), Cement (24%), Petroleum Products (17%), Fertilizers (2%)



Key import commodities: Fly ash/clinker (47%), Wheat (12%), Fertilizer (7%)



Limited cost advantage - short-term O&M contracts at terminals leading to poor quality – manual handling



## Key Investment Issues

- Expansion and upgradation of infrastructure
- Need for formal, specialized firms for management of service provision
- Appropriate financing and financial products for Inland Water Transport sector

# Land Ports will be Critical Enabler of Regional Trade And Require Investment in Modernization



Inconsistent railway network (~46% network is broad-gauge or dual gauge & ~54% meter gauge)



Only 1 rail linked ICD (at Kamalapur); Agreement signed between CCBL and Saif Powetec for the construction of ICD in Halishahar, near Chittagong port (Capacity ~ 1 lakh containers per year)



Moved over ~3,180 thousand tons of cargo (FY 2020); Marble & Stone, Oil fuel, and Containers, accounting for 80% of cargo



CCBL formed in 2016, but not fully operational yet – tariff fixation autonomy needed

## Operational performance of Bangladesh Railways

	 Wagon turn round time (days)	 % of wagons available for use to total on line	 Net ton km. per wagon day on line	 Average speed of diesel freight train (KPH)
BG	35.5	13.6	679	12.5
MG	34.53	36.12	90	12.6

*Data of year 2017-18*



## Key Investment Issues

- Infrastructure upgrade and maintenance requirements – Wagons availability, signalling system
- Critical need for inter-modal/multi-modal cargo movement
- Need of investments for overhauling both line haul and terminal infrastructure
- Need for private participation in development/maintenance of infrastructure – terminal and Line ; terminal development and wagon ownership an opportunity



# Connectivity Through Use of Intermodal Transportation : The China Example



## International Land-Sea Trade Corridor (ILSTC)

- **Intermodal** rail-sea movement
  - Faster than barging via Yangtze River to Shanghai
  - Cheaper than trucking to Guangzhou port
- **Consolidation/Hubbing** at Chongqing
  - Supporting rail / road last-mile connectivity within China to final destination
  - Value added hub services
- **Compliance, Trade Advisory**
  - Export and Import Permits for connectivity out of Singapore
- **End-to-End Visibility**
  - Through the use of PSAs digital platform to allow seamless and secure transfer of information between all parties

# Logistics Market in Bangladesh: Vibrant Growth Opportunities



**\$9.9 Trillion**

Global Market Size  
(2021)



**8<sup>th</sup> Position**

in Agility Emerging Markets Logistics  
Index (AEMLI), 2019



**\$130 Billion+**

Trade Volume  
(FY2022)



**1600+**

Local & international logistics and  
freight forwarding firms



**\$15 Billion**

Domestic Market Size  
(2018)

## Key Investment Areas in Bangladesh's Logistics Sector



**Ports and Terminals**



**Inland Container Depots**



**Freight Transportation**



**Warehousing**



**Lighter ships for Inland Waterways**

## Opportunities in Logistics Sector in Bangladesh

Expenditure on the sector needs to rise to 8% of GDP from 2-3%

Logistics market has an estimated value of US\$ 15 billion

Demand for warehousing to increase by 64% by FY22

Exports to rise by 70% and Import by 65% by FY25

Over US\$ 1 billion investment opportunity in cold chain

# National Development Strategies Offer Long-term Logistics Investment Prospects

Indicators		FY2018 (Base Year)	FY2021	FY2031	FY2041	
<b>Passenger Traffic</b> (billion passenger kilometres)	Roads	169	246	2072	4215	
	Inland Water	16	23	252	843	
	Railways	10	15	203	562	
	Total	195	284	2527	5620	
<b>Freight Traffic</b> (billion-tonnes kilometres)	Roads	24	31	71	177	
	Inland Water	5	7	20	74	
	Railways	2	3	10	44	
	Total	31	41	101	295	
<b>Air Traffic:</b>	(million) (million ton)	Passenger	12.40	14.30	29.1	55.97
		Freight	0.38	0.45	0.65	1.14
<b>Sea Port Cargo Traffic:</b>	(million) (million ton)	Container	2.2	3.6	12.5	48.2
		Tonnes	86	122	417	1612
<b>Urban mass transit</b>		No of cities	0	1	8	All major cities
<b>Infrastructure quality</b>		Country ranking	120	118	60	40
		Score	2.8	2.9	4.0	5.0

Source: GED Projections.

# Several Port Projects in Pipeline Offer Private Participation Opportunities

Chattogram Port	Aver. Growth (2016-2020)
Import (MT)	8.23%
Export (MT)	0.46%
Cont. (TEUS)	4.33%
Vessels	5.63%

Mongla Port	Aver. Growth (2016-2020)
Import (MT)	18.30%
Export (MT)	16.52%
Cont. (TEUS)	15.27%

## Several Important Initiatives Undertaken

- Patenga Container Terminal (PCT) : 0.4m TEUS (Completed)
- Bay Container Terminal : 5.6m TEUS
- Matarbari Port: 4m TEUS; 1.9m tons of commodities
- Payra Port
- Proposed Sitakunda Port
- Dhirasrom Inland Container Port

# Ongoing/Pipeline Projects Boast Private/PPP Investment Avenues

## Investment Worth Over US\$ 2.5 Billion in the Shipping Logistics

- Construction and operation of 2 (two) incomplete Jetties of MPA at Mongla.
- Payra Port Container Terminal.
- Construction of Bay Terminal.

## Investment Worth Over US\$ 700 Million in the Inland Container Logistics

- Construction of a New Inland Container Depot (ICD) near Dhirasram Railway Station.
- Construction & Operation of Inland Container Terminal (ICT) at Khanpur.
- Equip, Operate and Maintain Patenga Container Terminal.

## Investment Worth Over US\$ 800 Million in the Railway Logistics

Circular Railway Line.

Multimodal Hub at Kamalapur Railway Station.

Construction of Multimodal Hub at Dhaka Bimanbandar Railway Station

## Investment Worth Over US\$ 120 Million in the Land port Logistics

- Kamalpur Land Port Development
- Gobrakura Land Port Development
- Bilonia Land Port Development
- Development of Sheola, Bhomra, Ramgarh Land port & Upgradation of Security System of Benapole Land Port
- Cargo Vehicle Terminal Construction on Benapol Land Port

# Several Issues Require Priority Attention for Logistics Market Development

Absence of a National Logistics Strategy

Entry barriers for foreign logistics operators

Container dwell times at Chattogram Port are very high

Complex port governance/regulatory system

Some policies lead to less efficient port operation

Limited Private Sector participation in port sector

Chittagong Port, at 9.1 meters, is much shallower than other South Asian ports

Several inefficiencies results in long pre-birthing



# Competing Economies are Developing Logistics System Fast under National Strategies

## Ethiopia

- National Logistics Strategy 2011-2020

## India

- National Logistics Policy 2018 (draft – at final stage of adoption)

## Indonesia

- National Logistics Blueprint, 2011-2025

## Malaysia

- Logistics and Trade Facilitation Masterplan (2015 – 2020 under National Logistics Plan - as part of Third Industrial Plan for 2006-2020)

## Myanmar

- National Logistics Master Plan (project initiated in 2016) under National Transport Master Plan (MYT Plan) (2015-2040)

## South Korea

- National Logistics Master Plan (2016-2025) under Framework Act on Logistics Policies in 2007

## Sri Lanka

- The Logistics Strategy 2018-2022 developed as part of the National Export Strategy

## Thailand

- The Third Logistics Development Strategic Plan (2017-2022) Under National Strategy on Logistics for the Kingdom of Thailand 2004

## Vietnam

- Action Plan for Enhancing Competitiveness and Development of Logistics Services towards 2025 (adopted in 2017)

# Way Forward : Some Strategic Considerations

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## **Developing Holistic Long-term Strategy**

Overall port masterplan important to phase-in port projects in line with demand to avoid over capacity; Aligned to National Logistics Policy

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Container port competitiveness is driven by criteria such as port costs, handling efficiency, hinterland connectivity, and the quality of infrastructure and services.

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## **Embracing Technology in Developing 21<sup>st</sup> Century Ports**

Integrating data flows between port, customs with industrial zones & ICDs through IT infrastructure to streamline documentation and reduce processing time

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A possible blueprint to enhance Bangladesh's digital connectivity for its supply chain communities.

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## **Mainstreaming Health, Safety, Security & Environment for global compliance**

Framework for HSSE management system

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## **Increasing Competition in Logistics Services Markets**

New legal framework beyond Warehouse Act of 1958; Reforming entry barriers/495 equity ceiling for FDI in several logistics sub-sectors; Simplifying ICD /CFS set up regulations and relevant bonded regulation

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## **Adopting PPP as a model to develop large port and logistics infra and services**

Expedited development of Bay Container Terminal by engaging globally reputed developer and operator; similar approach for Matarbari container port and multimodal logistics hubs across the country

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# Building a Logistics Ecosystem for Vision 2041: Key Policy Priorities

## Effective Governance of Logistics Sector

- Constitution of Nodal Agency/Champion Ministry/Department for logistics
- Formulation of National Logistics Policy/Strategy
- Development of co-ordination framework, review and monitoring
- Implementation of mechanism for sector review & monitoring framework
- Promoting PPP for development, operations & maintenance of infrastructure
- Implementation of Single Window for Transport & logistics

## Efficient Border Clearance

- Digitisation of Customs
- Exploring presence of OGAs at trade gateways
- Strengthening Authorised Economic Operator (AEO) Programme
- Relaxing restrictions on import & LCL containers/cargo to be handled at off-docks
- Development of One Stop Border Posts for land based trade in long term

## Innovative and Long-term Finance for Logistics Development

- Credit Guarantee Mechanism for Transport and Logistics Operators; inclusion in priority sector (for IWT)
- Vehicle Scrappage Policy incentivising fleet renewal and high capacity vehicles
- Policy for promoting private sector participation in ports, railways – Terminal Facilities and Wagon Ownership/Investment, airport cargo hubs etc.

## Transitioning to More Efficient Ports and Hinterland Connectivity

- Tariff review for land ports & seaports (demurrage and storage)
- Gradual adoption of landlord port model
- Promoting development of Off-dock facilities through conducive policy environment
- Promoting inland containerisation by expansion of rail ICD/terminal capacity and relaxing customs regulations requiring bank guarantee for movement of empty containers
- Enhancing Climate Resilience of New Ports and Logistics Infrastructure

# Inter-twined Gains Make Logistics Investments A Win for All : A More Competitive Bangladesh, and High-return Investments for Private Sector



**7-35% Reduction in Logistics Cost**

If congested conditions are addressed, Bangladesh has the opportunity to reduce logistics costs depending on the sector



**8% Increase in Exports**

By increasing the average speed of the trucks in Dhaka-Ctg Highway to 40KM/H which is currently 19 KM/H



**120% Lower Transport Cost on Main Growth Corridor**

Congestion increases average standard trucking costs in Dhaka–Chattogram corridor by 120 percent, and along the Dhaka–northwest corridor by 79 percent



**35.5% Lower Trucking cost**

If there were no congestion in Bangladesh, total costs borne by truck operators would therefore be 35.5 percent lower on average.

An aerial night view of a busy port. In the center, a large blue Maersk container ship is docked at a pier. Several large gantry cranes are positioned along the pier, some with their lights on. The foreground is filled with stacks of colorful shipping containers (blue, red, yellow, and white) on the pier. The background shows a city skyline with lights reflecting on the water under a dark, cloudy sky. The text "Thank You" is overlaid in the center in a large, white, sans-serif font.

Thank You