HighLevel 16 Regional EST Forum in Asia

Presented By

Mr Hashan Mahmud, Joint Secretary, Ministry of Railways, Bangladesh.



Goal-1 Environment Sustainability

Goal 1(C) Air Pollution: By 2030 reduce air pollution and contamination caused by traffic, including PM 2.5, other pollutants and noise



- National Adaptation Program on Action (NAPA) 2005
- Bangladesh Climate Change Strategy and Action Plan (BCCSAP), released in 2009
- Bangladesh Environment Conservation Act 1995
- Air Pollution Control Rules 2022
- National Adaptation Plan (2023-2050)
- NDC Nationally Determined Contributions 2015
- Bangladesh Delta Plan 2100
- Climate Change Trust Fund Act 2010
- Disaster Management Act of 2012

• National Adaptation Plan (NAP) (2023-2050)

- Mandated by the Constitution in its 15th amendment, Article 18a on the protection and improvement of the environment and biodiversity
- The NAP includes **23 adaptation strategies** under 8 sectors to reinforce implementation
- An estimates cost for the implementation of **113** interventions will require US \$230 billion) for 27 years (2023-2050)
- Every year \$8.5 billion per year, with \$6.0 billion per year from external sources

NDC Nationally Determined Contributions 2015

- Bangladesh submitted its INDC to UNFCCC on 25 September 2015, for three sectors (Power, Industry and Transport).
- Bangladesh prepared the NDC Roadmap and Action Plan in 2018.
- In 2021, NDC was updated covering Energy, Industry, Agriculture, Forestry and Land use sector in addition to Waste.
- The NDC calls for several mitigation actions that will limit the country's GHG emissions
- Bangladesh aims to reduce its greenhouse gas emissions by 6.73% by 2030, relative to a business-as-usual trajectory.
- With international support, the country aims to reduce emissions by up to 21.85% by 2030

Bangladesh Delta Plan 2100

- A comprehensive 100-year strategic plan aimed at gradual sustainable development through adaptive delta management process.
- It has included climate change as a significant future challenge.
- The plan targets to achieve a climate-resilient and prosperous delta by reducing vulnerability to natural disasters and building resilience to climate change.
- Total 80 projects are planned to be implemented with \$37 billion investment.

Goal-1 Environment Sustainability (Paris Agreement and Bangladesh)

Mitigation (Article-4)

Adaptation (Article-7)

Loss and Damage (Article-8)

Green Climate Fund (Article-9,10,11)



Goal-3 Economic Sustainability

By 2030 realize sustainable economic and employment growth by leveraging science, technology and innovation and green investments in quality passenger and freight transport infrastructures.



Goal-3 Economic Sustainability (Metro Rail in Bangladesh)

Length : 21.26 kilometer (Elevated) Stations : 16 nos. Passenger Capacity : 60,000/ hour (both directions) Speed : 23~35 km/hour to 100 km/hour (Maximum) Travel Time : 37 minutes Train Interval : 3.5 minutes. Estimated Cost in BDT: Total 21,985.07 (Crore) GOB 5,390.48 (Crore) and JICA 16,594.59 (Crore)



Goal-3 Economic Sustainability (Proposed Electric traction for Bangladesh Railway)

Dhaka-Narayangonj-Chottogram Electric Traction System (Proposal Stage)

Length : 348.16 kilometer Stations : 70 nos Included with overhead Catenary and Sub-stations. Cost: Highly costly, requires International Fund Green transportation according to the atmospheric pollution



Goal-3 Economic Sustainability (Action Plan for Goods and Passengers of Bangladesh Railway)



Transportation Sector GHG Emissions by Source Bangladesh Scenario

Emission Factor per pkm and per tkm Road versus Rail, Bangladesh 2015 (gCo2, TTW)



Emission Factor per Mode Passenger Transport							
Mode	GHG TTW	GHG WTW	BC	GHG WTW incl. BC			
Passenger Cars	105	132	0	132			
Coach	36	45	7	52			
Train	12	16	0	16			

Emission Factor per Mode Freight						
Mode	GHG TTW	GHG WTW	BC	GHG WTW incl. BC		
Truck	110	138	14	152		
Train Freight	14	18	0	18		

Bangladesh Railway's Plans to Meet the Future Traffic Demand



Growth of Transport Output and Modal share

Year	Passenger				Freight			
	Total		Share (%)		Total		Share (%)	
	Passenger- KM (billion)	Road	IWT	Rail	Tonne- KM (billion)	Road	IWT	Rail
FY76	17	54	16	30	2.6	35	37	28
FY86	35	64	16	20	4.8	48	35	17
FY90	57	68	15	17	6.3	53	30	17
FY98	90	72	17	11	12	65	28	7
FY06	112	88	08	04	20	80	16	4
FY18	195	86.67	8.21	5.13	31	77.42	16.13	6.45
FY21	284	86.62	8.1	5.28	41	75.61	17.07	7.32

Government's Initiatives to Improve Railway Sector

JANUARY	2010	2016	2021	2030	2041	2045
Perspective Plan 2021						
Perspective Plan of Bangladesh 2021-2041		_				
Bangladesh Delta Plan (2100)						
Railway Master Plan (2010- 2030)						
Updated Railway Master Plan (2016- 2045)						
Five Year Plans (From 1973- 2025)						

Goal-5 Access and Connectivity Goals (Urban Access)

By 2030 ensure access to accessible, inclusive, safe, efficient, affordable and sustainable transport facilities, systems and services for urban dwellers including disabled and vulnerable groups.



Goal-5 Access and Connectivity Goals (Urban Access)

SASEC Dohazari-Cox's Bazar Railway Project

Finance- ADB Cost: USD 2013 Million Bangladesh- 512 Million ADB- 1501 Million Cox's Bazar is the largest sea Beach in the World. Tourism is the highest attraction on this connectivity. It is also the corridor to Myanmar

and TAR connectivity.



Goal-5 Access and Connectivity Goals (Urban Access)

Padma Bridge Railway Link Project

The biggest railway infrastructure

project in Bangladesh.

Length- 170 KM

Project period: January 2016 - June 2024

Project Cost: BDT 39000.24 CroreFund: 85% by The People's Republicof China and 15% by the Governmentof The People's Republic ofBangladesh.



Goal-5 Access and Connectivity Goals (Urban Access)

Jamuna Railway Bridge Project

Connects Entire North region Total length- 4.8 kilometres Project period: January 2016 - June 2025

Project Cost: BDT Tk 16,781 crore

Fund: 72% by JICA and 28% by the Government of The People's Republic of Bangladesh.



Future Plans toward a Sustainable Transport system

- Double tracking and gauge conversion to increase capacity and service
- Cord-line connections between different sections
- Introduction of Electric Traction between different sections
- Introduction of Electric Vehicles
- Connectivity with Ports and deep sea ports
- Renewable Energy in all Railway Stations
- Introducing Electric Train in Dhaka city as circular connectivity
- Connectivity with EPZs and ICDs
- Regional connectivity strengthening
- Expansion of Metro Rail Connectivity



