Report and Recommendation of the President to the Board of Directors

INTERNAL

Project Number: 55201-001
October 2022

Proposed Loans and Grant
People's Republic of Bangladesh: Coastal Towns Climate Resilience Project

Asian Development Bank

CURRENCY EQUIVALENTS
(as of 14 September 2022)

Currency unit	–	taka (Tk)
Tk1.00	=	$0.010
$1.00	=	Tk95.8516

ABBREVIATIONS

ADB	–	Asian Development Bank
ADF	–	Asian Development Fund
COVID-19	–	coronavirus disease
EMP	–	environmental management plan
EWCD	–	elderly (older persons), women, children, and persons with disabilities
GESI	–	gender equality and social inclusion
IEE	–	initial environmental examination
IWM	–	integrated waste management
LGED	–	Local Government Engineering Department
NbS	–	nature-based solutions
O&M	–	operation and maintenance
OCR	–	ordinary capital resources
PAM	–	project administration manual
PIU	–	project implementation unit
PMU	–	project management unit
SDG	–	Sustainable Development Goal
SEC	–	small ethnic communities

NOTES

(i) The fiscal year (FY) of the Government of Bangladesh and its agencies ends on 30 June. “FY” before a calendar year denotes the year in which the fiscal year ends, e.g., FY2022 ends on 30 June 2022.

(ii) In this report, “$” refers to United States dollars.

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CONTENTS

PROJECT AT A GLANCE

1. Basic Data

Project Number: 55201-001

Project Name	Coastal Towns Climate Resilience Project Bangladesh	**Department/Division**	SARD/SAUW
Country	Bangladesh	**Executing Agency**	Local Government Engineering Department, Ministry of Local Government, Rural Development, and Co-operatives
Borrower	People's Republic of Bangladesh		
Country Economic Indicators	https://www.adb.org/Documents/LinkedDocs/?id=55201-001-CEI		
Portfolio at a Glance	https://www.adb.org/Documents/LinkedDocs/?id=55201-001-PortAtaGlance		

2. Sector

	Sector	Subsector(s)	ADB Financing ($ million)
✓	**Water and other urban infrastructure and services**	Other urban services	38.30
		Urban flood protection	96.00
		Urban policy, institutional and capacity development	29.30
		Urban slum development	7.00
		Urban solid waste management	10.10
	Transport	Urban roads and traffic management	69.30
		Total	**250.00**

3. Operational Priorities

- ✓ OP1: Addressing remaining poverty and reducing inequalities
- ✓ OP2: Accelerating progress in gender equality
- ✓ OP3: Tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability
- ✓ OP4: Making cities more livable
- ✓ OP6: Strengthening governance and institutional capacity

Climate Change Information

GHG reductions (tons per annum)	6,041
Climate Change impact on the Project	High

ADB Financing

Adaptation ($ million)	226.00
Mitigation ($ million)	1.20

Cofinancing

Adaptation ($ million)	0.00
Mitigation ($ million)	0.00

Sustainable Development Goals

SDG 5.5
SDG 11.1, 11.3, 11.5, 11.6, 11.7, 11.b
SDG 13.a
SDG 14.1
SDG 16.7

Gender Equity and Mainstreaming

Gender Equity (GEN) ✓

Poverty Targeting

Geographic Targeting ✓

4. Risk Categorization: Complex

5. Safeguard Categorization

Environment: B **Involuntary Resettlement:** B **Indigenous Peoples:** B

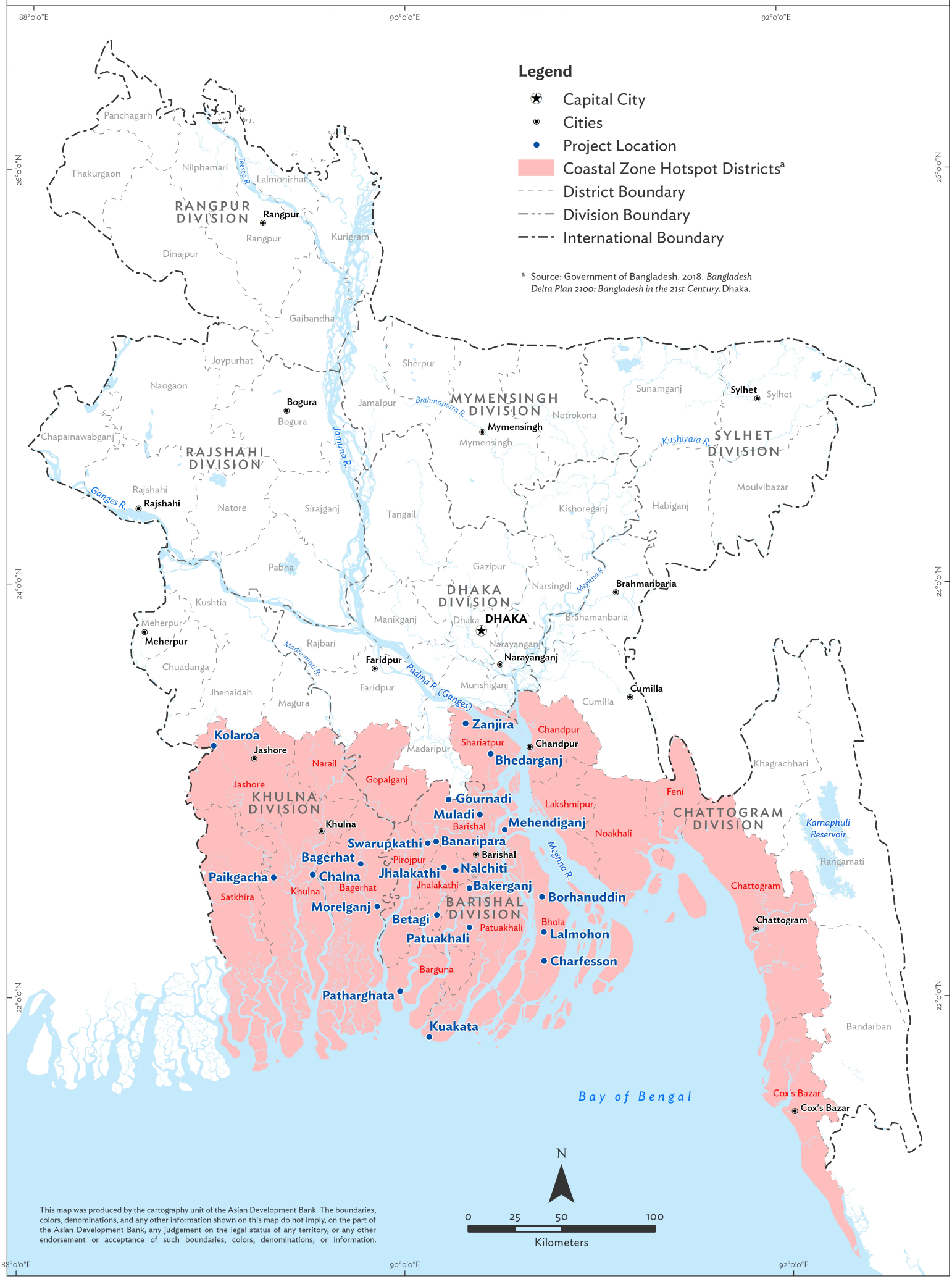
6. Financing

Modality and Sources	Amount ($ million)
ADB	**250.00**
Sovereign Sector grant: Asian Development Fund	4.00
Sovereign Sector (Concessional Loan): Ordinary capital resources	150.00
Sovereign Sector (Regular Loan): Ordinary capital resources	96.00
Cofinancing	**0.00**
None	0.00
Counterpart	**60.00**
Government	60.00
Total	**310.00**

Currency of ADB Financing: US Dollar

BANGLADESH

COASTAL TOWNS CLIMATE RESILIENCE PROJECT



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I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on proposed loans and a proposed grant to the People's Republic of Bangladesh for the Coastal Towns Climate Resilience Project.

2. The project will strengthen the climate resilience of 22 coastal towns by enhancing their ability to anticipate, absorb, accommodate, and recover from the effects of climate shocks and stresses, including through interventions targeted at the poor and women. The project will (i) improve priority municipal infrastructure and essential services that are critical for improving climate and disaster resilience and local economic development in project towns; (ii) enhance the livelihood resilience and adaptive capacity of vulnerable households through the graduation program in six project towns with high poverty levels; and (iii) strengthen institutional capacity, governance, and climate awareness. The project will support the Government of Bangladesh in achieving integrated and sustainable urban development to improve the livability of coastal towns in the face of increasing climate-related disaster risks.

II. THE PROJECT

A. Rationale

3. **Climate and disaster risk.** Bangladesh faces one of the highest disaster risk levels in the world, with high exposure to multiple climate-related hazards. These natural hazards interact with physical and socioeconomic factors, including low-lying delta and coastal areas, high population density and poverty rates, and lack of resilient infrastructure, with widespread impacts on both rural areas and expanding urban centers. Climate change is projected to alter precipitation patterns to unprecedented extremes, raise average temperatures, and increase the intensity and frequency of severe tropical cyclones leading to increased storm surges. Sea level rise is projected to further exacerbate the impact of storm surges in low-lying coastal regions. Estimates suggest that the effects of climate change could cause an average loss of about 1.3% in the growth of gross domestic product per year until 2041.[1] In the business-as-usual scenario, about 11 million households in Bangladesh will be affected by climate change in 2024. The number of affected households is expected to rise to 22 million and 30 million in 2028 and 2030, respectively.[2]

4. **Coastal towns and climate risk.** Coastal towns have high levels of hazard, exposure, and vulnerability to climate-related disasters because of factors including low elevation, high population density, high poverty rates, and limited capacity of *pourashavas* (local governments) to invest in resilience. Urban development related decisions being taken today will determine the severity of longer-term risks in coastal areas. Study shows that without climate adaptation measures, an estimated 2.5 million–7.2 million people annually will be affected by coastal flooding in Bangladesh from 2070 to 2100.[3] The project towns are in 10 coastal districts of Bangladesh and are very low-lying, with mean elevations of 2–12 meters (m) above sea level.[4] They face high exposure to flooding, tropical cyclones and storm surges, drought, and extreme heat. Most of

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[1] Government of Bangladesh, Ministry of Planning, Bangladesh Planning Commission, General Economic Division. 2020. *Making Vision 2041 a Reality – Perspective Plan of Bangladesh, 2021–2041*. Dhaka.
[2] F. Khatun and S. Saadat. 2021. *Climate Change in Bangladesh: A Sustainable Development Perspective*. Dhaka.
[3] K. Richardson. 2014. *Human Dynamics of Climate Change: Technical Report*. United Kingdom: The Met Office.
[4] Government of Japan, Ministry of Economy, Trade, and Industry; and the United States National Aeronautics and Space Administration. 2019. Advanced Spaceborne Thermal Emission and Reflection Radiometer (ASTER) Global Digital Elevation Map (Model Version 3).

these low-lying coastal areas have a population density of more than 500 people per square kilometer and some have more than 1,000 people per square kilometer.[5] Poverty rates range from 15.6% to 43.9% in the project towns.[6] Rapid unplanned development, which compromises natural drainage systems and wetlands; inadequate stormwater drainage facilities; and poor solid waste management contribute to increased climate-related disaster risks. The coastal towns face inadequate basic municipal infrastructure for climate resilience, limited adaptive capacity of their low-income and vulnerable communities, and capacity and governance constraints at various levels. Surmounting these challenges requires investments in climate adaptation to enable the project towns to achieve their development potential.

5. **Inadequate basic municipal infrastructure for climate resilience.** The project towns, all of which are in coastal areas of Bangladesh lack adequate infrastructure for coping with flood and cyclone risks. During 2002–2021, 34 flooding events occurred in Bangladesh.[7] The frequency and intensity of such events is expected to increase. Climate projections indicate the number of days with very heavy precipitation (20 millimeters or more per hour) could increase by almost 10 days on average from 1990 to 2100, increasing the risk of flooding.[8] Rapid and haphazard urbanization, limited consideration of hydrology, and lack of climate and disaster risk-informed urban development plans result in encroachment on waterways, reducing their retention capacity. Capacity limitations, siltation, and dumping of solid waste in drains have caused severe flooding and extended waterlogging. All project towns are served by on-site sanitation.[9] Most toilets are pit latrines, which are susceptible to inundation by stormwater. Project towns generate 255.2 tons of waste per day. The average collection efficiency in these towns is 40%, and collected waste is disposed of in a dump site or low-lying area.[10] Poor and nonexistent solid waste and septage management systems result in polluted waterways and high public health risks. Further, water supply services suffer from increasing saline intrusion because of rising sea levels and unsustainable groundwater extraction. Of the 22 project towns, 14 have a piped water supply service coverage of less than 40%.[11] Inadequate basic municipal infrastructure to respond to increasing climate risk threatens both quality of life and the economic growth of coastal towns. This calls for an integrated approach for coastal town development that promotes risk-informed planning and investment for building resilience.

6. **Limited adaptive capacity of low-income and vulnerable communities.** The urban poor of project towns tends to rely on agriculture- and fishery-based livelihoods, which are highly vulnerable to climate impacts. Their disproportionate exposure to climate impacts results in livelihood disruption and loss of physical, financial, human, social, and natural assets. Such events often lead to negative coping strategies such as using personal savings, limiting food consumption, selling assets, reducing non-food expenditure, and borrowing money at high interest rates, which may impact long-term well-being and exacerbate poverty. Among the urban poor, climate vulnerability varies between women and men, with women typically facing higher levels of vulnerability because of preexisting gender norms; engagement in the informal economy;

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[5] Columbia University. Center for Earth Science Information Network. Socioeconomic and Data Applications Center.
[6] Bangladesh Bureau of Statistic and World Food Programme. 2016. *Poverty Maps of Bangladesh 2016*. Dhaka; Household income below Tk12,887.6 per month for an average household size of 4.4.
[7] Centre for Research on the Epidemiology of Disasters, Université catholique de Louvain. Emergency Database (EM-DAT): The International Disaster Database. https://public.emdat.be/ (accessed 18 September 2022).
[8] World Health Organization. 2015. *Climate and Health Country Profile – 2015 Bangladesh.* Geneva.
[9] S. Rahman and M. Rahman. 2015. Climate Extremes and Challenges to Infrastructure Development in Coastal Cities in Bangladesh. *Weather and Climate Extremes*. 7. pp. 96–108.
[10] Waste Concern. 2021. Waste Data Base of Bangladesh – A report prepared for Department of Environment, Government of Bangladesh. Dhaka (unpublished).
[11] Government of Bangladesh, Department of Public Health Engineering. 2020. Water Supply in 22 Project Pourashavas: report based on data submitted by individual pourashavas in 2020. Dhaka (unpublished).

and limited access to productive assets, finance, skills, and awareness. These effects can be mitigated by adopting a package of targeted resilient livelihood improvement strategies that aim to reduce the resilience gaps of women by incorporating gender equality and social inclusion (GESI)-sensitive measures. These measures can protect the most vulnerable, promote equality, and foster community resilience. Similarly, providing women, the poor, and vulnerable communities with access to early warning information, cyclone shelters with safe spaces for women, and evacuation routes increases their preparedness and minimizes casualties during disasters.[12] However, the few cyclone shelters in the project towns are often structurally weak and poorly maintained; do not always incorporate inclusive design features to meet the needs of the elderly (older persons), women, children, and persons with disabilities (EWCD); and have limited EWCD access because of the poor condition of emergency access roads. Thus, there is a critical need for higher-capacity, GESI-sensitive multipurpose cyclone shelters that are (i) designed to meet EWCD's needs and green building design features; (ii) equipped with alternative power and water sources; and (iii) located away from hazard-prone areas, and accessible to all.

7. **Capacity constraints.** Project towns' high vulnerability is also linked to weak governance and low adaptive capacity of local governments and communities. Addressing climate and disaster risks requires moving beyond business-as-usual urban development and using GESI-responsive climate and disaster risk information as a starting point for evidence-based decision-making for integrated urban development. National and local government institutions' capacity to build resilience is improving, but gaps exist, especially in relation to citywide climate and disaster risk assessment to inform integrated urban development plans, GESI-responsive climate risk assessment in routine and periodic infrastructure maintenance processes, and participatory processes to develop and implement city-level emergency preparedness. There is an urgent need to strengthen institutional capacity and governance, public awareness, the participation of vulnerable households, and the social capital of poor women to complement physical investments as part of an integrated approach to building climate resilience.

8. **Government strategy.** The government recognizes the need to address climate risk in achieving the country's development aspirations. The government's Delta Plan 2100 provides an inter-sectoral approach to addressing climate risk.[13] The plan outlines policies for hotspots that are focused on flood risk management and freshwater conservation.[14] Coastal zones and urban areas are identified as two of six hotspots. The government's Eighth Five-Year Plan July 2021–June 2025 emphasizes the need to scale up climate actions by local governments, undertake gender-focused climate actions, address climate-induced migration issues through improvements in livelihoods in cities, and increase commitments to green solutions.[15] The project aligns with the priorities of the government's climate and urban development and international commitments.[16]

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[12] Asian Development Bank (ADB). 2014. *Coastal Towns Environment Infrastructure Project*. Manila; and ADB. 2018. *Coastal Towns Environment Infrastructure Project-Additional Financing*. Manila.

[13] Government of Bangladesh. 2018. *Delta Plan 2100: Bangladesh in the 21st Century* Dhaka. Climate actions include the National Adaptation Programme of Action (2005); the Climate Change Trust Act 2010; the Bangladesh Climate Change Strategy and Action Plan (2009); the Intended National Determined Contribution (2015); the Climate Change and Gender Action Plan; the National Plan for Disaster Management, 2016–2020, and the National Water Management Plan.

[14] Hotpots are prototypical areas where similar hydrological and climate change vulnerability characteristics and problems coverage such as sea level rise, river erosion, intensity of flooding, water shortage, siltation constraints. (Government of Bangladesh. 2018. *Delta Plan 2100*: *Bangladesh in the 21st Century*. Dhaka.)

[15] Government of Bangladesh. 2020. *Eighth Five Year Plan July 2020–June 2025: Promoting Prosperity and Fostering Inclusiveness*. Dhaka.

[16] These include commitments to the Sustainable Development Goals (SDG): SDG 1 (poverty targeting); SDG 5 (gender mainstreaming); SDG 11 (making cities and human settlements inclusive, safe, resilient, and sustainable); SDG 13 (climate action); SDG 14 (life below water); and SDG 16 (strong Institutions); the Paris Agreement; and the Sendai Framework for Disaster Risk Reduction.

9. **Sector lending modality**. The project will follow the sector loan modality because (i) it has many small discrete subprojects; (ii) the government has clear sector development strategies and priorities as elaborated in its Delta Plan 2100, Eighth Five-Year Plan, and Municipal Development Plan (2011); (iii) the government has the requisite institutional framework and capacity to implement the project; and (iv) the strategies applicable to the sector are appropriate as they address current sector needs. The Municipal Development Plan, which the Local Government Engineering Department (LGED) of the Local Government Division of the Ministry of Local Government, Rural Development and Cooperatives is updating, covers three pillars: governance, infrastructure, and climate change and disaster. The Ministry of Local Government, Rural Development and Cooperatives, through the LGED and the Department of Public Health and Engineering, has the institutional capacity to implement the plan. The project will play a key role in assisting the government in implementing the plan and is expected to strengthen municipal governance as well as financial, technical, and management capacity, and thereby the resilience, of project coastal towns.

10. **Lessons**. The Asian Development Bank (ADB) is a major development partner in Bangladesh's urban development, water, and sanitation sector. ADB supported the implementation of climate resilience measures under the Coastal Towns Environmental Infrastructure Project (footnote 12), and performance-based investment projects such as the Urban Governance and Infrastructure Improvement Project and its two subsequent projects.[17] Building on ADB's long-term involvement in the sector and implementation of other projects related to flood and riverbank erosion risk management, key lessons that inform the project design include the following:

(i) Ensure a good understanding of climate risk to steer coastal towns' economic development with an explicit focus on building resilience of the urban poor;
(ii) Adopt a holistic systems approach to adaptation, incorporating enhancements to social, ecological (nature-based), economic, and infrastructure resilience and adaptive capacity;[18]
(iii) Strengthen the role of women in governance committees and diversify their livelihoods, including through specialized adaptive capacity building interventions for women and vulnerable communities;[19]
(iv) Develop and implement the poverty reduction action plan, which provides a *pourashava*-level plan to reduce poverty and address barriers faced by the poor and vulnerable communities; and
(v) Provide financial incentives linked to performance indicators early in the project life cycle to incentivize the *pourashavas* to better perform and comply with sustainable operation and maintenance (O&M) practices.[20]

11. **Alignment with ADB's priorities.** The project aligns with ADB's Strategy 2030 by supporting key operational priorities related to addressing remaining poverty and reducing inequalities; accelerating progress in gender equality; tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability; making cities more livable;

[17] ADB. 2002. *Urban Governance and Infrastructure Improvement (Sector) Project*. Manila (closed); ADB. 2008. *Second Urban Governance and Infrastructure Improvement (Sector) Project*. Manila (closed); ADB. 2014. *Third Urban Governance and Infrastructure Improvement (Sector) Project*. Manila; and ADB. 2017. *Additional Financing—Third Urban Governance and Infrastructure Improvement (Sector) Project*. Manila.
[18] ADB. 2018. *Advancing Inclusive and Resilient Urban Development Targeted at the Urban Poor*. Manila.
[19] Committees include a cyclone shelter management committee, a solid waste management committee, operation and maintenance O&M) committees, and disaster management committees.
[20] ADB. 2014. *Third Urban Governance and Infrastructure Improvement (Sector) Project.* Manila.

and strengthening governance and institutional capacity.[21] The project will contribute to ADB's Healthy Oceans Action Plan by reducing the amount of solid waste entering coastal waters and increasing coastal resilience to climate change.[22] The project also aligns with the country partnership strategy for Bangladesh, 2021–2025, which prioritizes the provision of climate- and disaster-resilient infrastructure and services.[23] ADB closely coordinates with development partners including the Japan International Cooperation Agency, the World Bank and United Nations Agencies through the local consultative group to ensure effective and coordinated implementation of national polices, strategies, and programs.[24]

12. **Coronavirus disease (COVID-19).** COVID-19 has deepened negative economic impact on women and vulnerable households. Women and girls are generally earning less, saving less, and holding insecure jobs or living close to poverty, which make them more vulnerable.[25] Unemployment surged to 22.4% during April-July 2020, from 2.1% in March 2020.[26] The Eighth Five-Year Plan stresses the importance of a wider and more inclusive social protection system for an inclusive recovery from COVID-19 (footnote 15). The project will directly support the livelihood resilience of women and vulnerable households that are also affected by COVID-19 (paras. 15 and 17).

B. Project Description

13. The project is aligned with the following impacts: higher and sustainable growth trajectories achieved in the face of the various weather-related natural hazards and risk (footnote 13) and improved livability of coastal towns (footnote 1). The project will have the following outcome: climate and disaster resilience of coastal towns strengthened, including benefiting the poor and women.[27] The project's support across *pourashavas* will be determined using a differentiated approach based on each *pourashava's* vulnerability and exposure to climate risk and suitability for growth (para. 25). The project directly supports the achievement of project outcomes through three interlinked outputs.

14. **Output 1: Municipal infrastructure for resilience improved.** Output 1 supports the development of priority municipal infrastructure and essential services that are critical for improving climate and disaster resilience and local economic development in the 22 project towns.[28] Output 1 includes (i) the construction of EWCD-friendly cyclone shelters with early warning systems;[29] (ii) the upgrading or construction of emergency access roads to cyclone

[21] ADB. 2018. *Strategy 2030: Achieving a Prosperous, Inclusive, Resilient, and Sustainable Asia and the Pacific*. Manila.
[22] ADB. 2019. *Action Plan for Healthy Oceans.* Manila.
[23] ADB. 2021. *Country Partnership Strategy: Bangladesh, 2021–2025—Sustain Growth, Build Resilience, and Foster Inclusion*. Manila.
[24] Sector Assessment (Summary): Water and Other Urban Infrastructure and Services (accessible from the list of linked documents in Appendix 2)
[25] United Nations. 2020. *Policy Brief: The Impact of COVID-19 on Women*. New York.
[26] Government of Bangladesh, Bangladesh Bureau of Statistics. 2020. *Report on Perception Survey of Livelihood 2020*. Dhaka.
[27] The design and monitoring framework is in Appendix 1.
[28] The towns, which are selected based on a climate risk and vulnerability assessment screening process of 11 coastal districts, are Bagerhat, Bakerganj, Banaripara, Betagi, Bhedarganj, Borhanuddin, Chalna, Charfesson, Gournadi, Jhalakathi, Kolaroa, Kuakata, Lalmohon, Morelganj, Mehendiganj, Muladi, Nalchiti, Paikgacha, Patharghata, Patuakhali, Swarupkathi, and Zanjira.
[29] EWCD-friendly cyclone shelters will include separate toilets for women and men, separate space for women (including nursing mothers) and girls with adequate lighting, access to safe drinking water, solar panels, ramps for easy access by the elderly and persons with locomotor disability in the building and toilets, and tactile flooring on stairs and entrances to assist visually impaired persons.

shelters; (iii) the development of climate-resilient infrastructure for improved urban flood risk management, including stormwater drainage, nature-based solutions (NbS), restoration of water bodies, and integrated waste management (IWM);[30] (iv) rehabilitation or construction of roads with stormwater drainage, bridges, and culverts for improved connectivity and access to emergency services; (v) improvement of gender-responsive and socially inclusive urban public spaces; (vi) implementation of slum improvement programs; and (vii) construction of EWCD-friendly sanitation facilities for poor households. Output 1 also supports the development of EWCD-friendly socioeconomic infrastructure, including local markets; bus terminals; and other priority roads, bridges, culverts, and boat landing stations. All subprojects are in accordance with the project subproject selection criteria detailed in the project administration manual (PAM). [31]

15. **Output 2: Resilient livelihoods enhanced.** Output 2 supports increasing the adaptive capacity of vulnerable households, and especially poor women, to deal with climate shocks in six project towns with high poverty levels through the graduation approach (also known as economic inclusion).[32] The graduation approach will build the livelihood resilience of vulnerable households and women through a sequenced and comprehensive set of interventions to place households on an upward trajectory from poverty.[33] The activities will include assessing climate risk and local markets to identify viable income-generating activities; mapping household skills and resources; matching household enterprise and employment; and providing tailored technical training and livelihood assets, especially to women to deliver holistic support and overcome the gaps they face in building resilient livelihoods. Output 2 includes (i) covering climate-vulnerable households in the graduation program in six project towns; (ii) training women, including persons with disabilities, to increase skills for resilient livelihoods; and (iii) documenting vulnerable households' inventories of productive assets and facilitating access to insurance. This will also help poor and vulnerable households recover from the effects of the COVID-19 pandemic.

16. **Output 3: Institutional capacity, governance, and climate awareness strengthened.** The project supports the strengthening of the LGED and project *pourashavas*' institutional capacity, governance, and climate awareness through knowledge management to complement physical investments as part of an integrated approach to building climate change resilience. Output 3 includes: (i) submission of risk-informed urban development plans and poverty reduction action plans of project towns to the *pourashavas* council and ensuring that development activities align with the risk-informed urban development plans; (ii) training of LGED and *pourashava* staff*,* including 90% of eligible female staff, for increased knowledge on GESI-responsive climate and disaster risk assessment to inform urban development plans and development control regulations linked with hazards; (iii) training of LGED and *pourashava* staff*,* including 90% of eligible women staff*,* to increase knowledge and capacity on NbS and green solutions; (iv) operationalizing of the disaster management committee on disaster preparedness measures; cyclone shelter management committees; and standing committees on women's and children's affairs, poverty

[30] NbS promote actions to protect, sustainably manage, and restore natural and modified ecosystems in ways that address societal challenges effectively and adaptively to provide both human well-being and biodiversity benefits. Source: International Union for Conservation of Nature (IUCN). 2020. *Guidance for using the IUCN Global Standard for NbS. A user-friendly framework for the verification, design and scaling up of NbS*. First edition. Gland, Switzerland.

[31] Project Administration Manual (accessible from the list of linked documents in Appendix 2).

[32] Six project towns with high poverty rates are identified from the top-ranked climate risk project *pourashavas*—Chalna, Gournadi, Mehndiganj, Muladi, Nalchiti, and Paikgacha.

[33] The four key pillars of the graduation approach are (i) social protection through a subsistence allowance and links to basic services, (ii) livelihood promotion through access to sustainable and resilient livelihoods, (iii) financial inclusion through access to formal savings mechanisms and financial literacy, and (iv) social empowerment for positive behavior change among families and communities. Following this approach, the graduation program will be designed for each *pourashava*. The project will recruit two local civil society organizations as partners, to support the design and implementation of the graduation program.

reduction, and slum improvement in project *pourashavas* to improve municipal governance and sustainable service delivery;[34] (v) approval of a revenue enhancement plan by each project *pourashava*; (vi) establishment of functioning computerized tax records and billing systems; (vii) approval of annual GESI-responsive O&M plans by each project *pourashava* and allocation and spending of at least 75% of the required annual budget; and (viii) development of gender-responsive and socially inclusive urban space design guidelines.

17. Output 3 also supports enhanced public awareness, behavior change, and community mobilization in light of emergencies such as the COVID-19 pandemic and Cyclone Amphan in 2020. It will also support training and capacity building of the LGED and *pourashavas* to institutionalize information technology-based remote monitoring through strengthening the LGED's geographic information systems section, monitoring and evaluation unit, and project management unit (PMU).

C. Value Added by ADB

18. ADB has undertaken a series of assessments that have informed the overall project design. They include (i) country diagnostic work on climate-resilient, pro-poor urban development undertaken through a knowledge and support technical assistance project (footnote 18); (ii) an assessment of lessons from implementing resilience measures in the ADB-financed Coastal Towns Environmental Infrastructure Project (footnote 12); and (iii) climate risk and adaptation assessment of project towns using the Spatial Data Analysis Explorer. Innovative aspects of the project to add value include: (i) adopting a holistic approach to strengthening climate and disaster resilience by designing all project outputs based on a robust understanding of climate and disaster risks and promoting transformative solutions for poor and vulnerable communities; (ii) introducing transformational resilience solutions, such as risk-informed urban planning and NbS, that address underlying drivers of vulnerabilities through changes in land use patterns, restoration of ecosystems, and engagement of poor and vulnerable communities, especially women, in decision-making, financed through additional grants from the Asian Development Fund (ADF) 13 thematic pool; (iii) adopting innovative solutions such as the graduation approach to livelihood resilience, which complements wider initiatives on strengthening resilience through social protection;[35] (iv) introducing gender-responsive and socially inclusive urban space design guidelines and using those guidelines to pilot the development of urban spaces in two project towns; (v) adopting an integrated flood and drainage management approach, which will generate co-benefits of salinity prevention and recreation space provision; (vi) supporting the institutionalization of earth observation technology for risk-informed urban development and remote project management; and (vii) promoting governance-led investment through performance-based allocations. These features will be captured in a knowledge product and will be used as a model for replication in other climate-vulnerable towns in Bangladesh and other countries in South Asia and the Asia Pacific region.

D. Summary Cost Estimates and Financing Plan

19. The project is estimated to cost $310 million (Table 1).

[34] A risk-informed performance-based budget allocation strategy will be adopted to promote governance-led infrastructure improvement to ensure sustainable urban services. The *pourashava* will need to fulfill a set of performance criteria to receive funds for infrastructure improvement. The performance criteria are elaborated in the Project Administration Manual (footnote 31).

[35] ADB. 2021. *Strengthening Social Resilience Program*. Manila.

20. Detailed cost estimates by expenditure category and financier are included in the PAM (footnote 31).

Table 1: Summary Cost Estimates
($ million)

Item		Amount[a]
A.	**Base Cost**[b]	
1.	Output 1: Municipal infrastructure for resilience improved	244.1
2.	Output 2: Resilient livelihoods enhanced	4.0
3.	Output 3: Institutional capacity, governance, and climate awareness strengthened	24.7
	Subtotal (A)	**272.8**
B.	**Contingencies**[c]	**29.3**
C.	**Financing Charges**[d]	**7.9**
	Total (A+B+C)	**310.0**

[a] Includes taxes and duties of $34.1 million. Such amount does not represent an excessive share of the project cost. The government will finance taxes and duties of $34.1 million from cash contribution. An exchange rate of $1 = Tk86 is used.
[b] In mid-2021 prices as of January 2022.
[c] Physical and price contingencies, and a provision for exchange rate fluctuation are included. Physical contingencies are computed at 2% for civil works and equipment. Price contingencies are computed at 1.7%–1.8% on foreign exchange costs and 5.5%–5.9% on local currency costs; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.
[d] Includes interest for ordinary capital resources (OCR) regular and concessional loans and commitment charges for OCR regular loan. For regular OCR, interest during construction for the Asian Development Bank loan has been computed at the 5-year United States dollar secured overnight financing rate fixed-swap rate plus a spread of 0.5%, surcharge on funding cost margin of 0.14%, and a maturity premium of 0.1%. Commitment charges for an Asian Development Bank loan are 0.15% per year to be charged on the undisbursed loan amount. For the concessional loan, interest during construction is calculated at 2% per annum and there is no commitment charge.
Source: Asian Development Bank estimates.

21. The government has requested (i) a concessional loan of $150 million from ADB's ordinary capital resources (OCR), (ii) a regular loan of $96 million from ADB's OCR, and (iii) a grant not exceeding $4 million from ADB's Special Funds (ADF) to help finance the project. The concessional loan will have a 25-year term, including a grace period of 5 years; an interest rate of 2.0% per year during the grace period and thereafter; and such other terms and conditions set forth in the draft loan and project agreements. The regular loan will have a 25-year term, including a grace period of 5 years; an interest rate determined in accordance with ADB's Flexible Loan Product; a commitment charge of 0.15% per year; and such other terms and conditions set forth in the draft loan and project agreements. Based on the straight-line method, the average maturity is 15.25 years and the maturity premium payable to ADB is 0.10% per year.

22. The summary of the financing plan is in Table 2. The ADF grant will finance civil works, equipment, consulting services, and contingencies related to NbS for climate adaptation.[36] ADB concessional and regular OCR loans will finance the expenditures in relation to civil works and equipment, consulting services, incremental administration cost, and part of contingencies. The government will provide $60 million toward taxes and duties, land acquisition and resettlement, contingencies, and financing charges during implementation.

[36] The ADF 13 thematic pool grant will enable the project to demonstrate the proof of concept of transformative pro-poor resilience solutions, such as NbS, to strengthen resilience and development risk-informed urban development plans, thereby steering urban development in resilient directions.

Table 2: Summary Financing Plan

Source	Amount ($ million)	Share of Total (%)
Asian Development Bank		
Ordinary capital resources (regular)	96.0	31.0
Ordinary capital resources (concessional)	150.0	48.4
Special Funds resources (Asian Development Fund grant)[a]	4.0	1.2
Government of Bangladesh	60.0	19.4
Total	**310.0**	**100.0**

[a] Asian Development Fund 13 thematic pool.
Source: Asian Development Bank estimates.

23. Climate mitigation is estimated to cost $1.4 million and climate adaptation is estimated to cost $261.1 million. ADB will finance 85.7% of mitigation costs and 86.6% of adaptation costs. The project has a primary objective of building climate resilience and, accordingly, the total cost of the majority of outputs (except the cost of infrastructure for local economic development) is counted as climate adaptation.[37]

E. Implementation Arrangements

24. Implementation arrangements are summarized in Table 3 and described in detail in the PAM (footnote 31). The potential impact of the COVID-19 pandemic on implementation is factored into the project implementation period and corresponding cost estimates.

Table 3: Implementation Arrangements

Aspects	Arrangements		
Implementation period	November 2022–December 2029		
Estimated completion date	30 June 2029		
Estimated loans and grant closing date	31 December 2029		
Management			
(i) Oversight body	Steering committee: Secretary, LGD (chair); joint secretary (planning wing), LGD; joint secretary (development), LGD; chief engineer, LGED; deputy secretary (chief), LGD; representatives of ECNEC and coordination wing of the Planning Division, Planning Commission (Physical Infrastructure Division), Planning Commission (Programming Division), sector concerned of the Implementation Monitoring and Evaluation Division, Economic Relations Division (Foreign Aided Project), Ministry of Finance (Finance Division), and Planning, LGED; project director (member secretary); senior assistant chief and assistant chief concerned, LGD; and special invitees to advise the committee on technical issues		
(ii) Executing agency	LGED, Ministry of Local Government, Rural Development, and Co-operatives		
(iii) Key implementing agencies	Each project *pourashava*		
(iv) Implementation unit	22 *pourashavas*, 176 staff		
Procurement	Open competitive bidding—goods (nationally advertised)	15 contracts	$10.7 million
	Open competitive bidding—works (nationally advertised)	205 contracts	$216.8 million

[37] Climate Change Assessment (accessible from the list of linked documents in Appendix 2).

Aspects	Arrangements		
Consulting services	QCBS	2,724 person-months	$16.1 million
	SSS	86 person-months	$0.8 million
Retroactive financing and/or advance contracting	Advance contracting and retroactive financing of civil works, equipment, and consulting services will be undertaken. Retroactive financing will be considered for up to 20% of the loan and grant amount for expenditures incurred for civil works; consulting contracts; and establishment and operation of the PMU, and project implementation units before loan and grant effectiveness, but not earlier than 12 months before the signing of the loan and grant agreements.		
Disbursement	Disbursement of the loans and grant proceeds will follow ADB's *Loan Disbursement Handbook* (2017, as amended from time to time) and detailed arrangements agreed between the government and ADB.		

ADB = Asian Development Bank, ECNEC = Executive Committee of the National Economic Council, LGD = Local Government Division, LGED = Local Government Engineering Department, NEC = National Economic Council, PMU = project management unit, QCBS = quality- and cost-based selection, SSS = single source selection.
Source: Asian Development Bank.

III. DUE DILIGENCE

A. Technical

25. The project outputs were identified and designed based on a detailed climate risk and adaptation assessment of the 22 project *pourash*avas (footnote 37). This included an assessment of overall climate vulnerability and exposure to establish the baseline climate risk for each *pourashava*. Further, an assessment of future climate was undertaken using analysis of Coupled Modeled Intercomparison Project-6 (CMIP 6) climate models at the district level, with percentage increases in maximum daily precipitation, temperature, and sea level rise used to define climate change impacts. The assessment helped identify the 15 *pourashavas* facing the highest overall climate risk and risks to key infrastructures such as drainage and cyclone shelters. This formed the basis for the prioritization of investments. In parallel, integrated drainage plans and detailed engineering designs of roads and cyclone shelters were reviewed to identify climate risk gaps and recommend design improvements. Potential climate change-related impacts can be reduced by including climate adaptation measures in subproject designs. Master planning processes and early warning systems were reviewed to identify opportunities for strengthening climate resilience.

B. Economic and Financial Viability

26. **Economic analysis.** The project being a sector project, the economic analysis evaluated the economic feasibility of interventions of four sample subprojects in two *pourashavas*.[38] The economic rationale for the government's intervention is sound as the project focuses on strengthening climate resilience through the provision of urban basic services, including cyclone shelters, urban drains, emergency access roads, and IWM, where there is a natural monopoly and the services are public goods managed by the government. The estimated economic internal rates of return for the sample subprojects are 12.7% (Bagerhat drain), 15.2% (Jhalakathi cyclone shelter), 15.5% (Bagerhat IWM), and 18.5% (Jhalakathi roads), which are higher than the economic opportunity cost of capital of 9.0%, indicating significant economic returns. The results are found satisfactory against all downside risks with higher economic internal rates of return than the minimum required economic opportunity cost of capital of 9%, except for the combined worst-case scenario for drain and cyclone shelter subprojects. The construction of assets under these

[38] Complete due diligence was conducted for the four sample subprojects in the two *pourashavas*—Jhalakathi (cyclone shelters and urban roads) and Bagerhat (IWM and stormwater drainage).

four sample subprojects will benefit 130,000 people by 2029. The estimated poverty impact ratio for four sample subprojects ranges from 25.3% (Jhalakathi roads) to 29.4% (Bagerhat drain). [39]

27. **Financial analysis.** ADB carried out financial analysis for the same four sample subprojects (footnote 38). The proposed sample subprojects are nonrevenue-generating, with no project-specific revenue stream that would cover O&M expenses. The historical and future cash flow analysis was conducted for the project towns, which will operate and maintain assets to be constructed under this project. The analysis found that, with current trends in income, expenditure, and the government grant, Bagerhat has adequate capacity to operate and maintain the proposed subprojects, and Jhalakathi requires additional financial support from the government to sustainably operate and maintain the proposed subproject. To ensure sustainable O&M, the project will support the development of a revenue enhancement plan for each *pourashava* under output 3. The scope of the plan includes (i) identifying the potential for increasing the revenue from existing sources by improving the collection efficiencies to 85%, (ii) exploring new revenue sources, and (iii) assessing the legal provisions required to amend and implement the revenue enhancement measures. The government has given its assurance that it will provide funding to ensure financial sustainability in case the project towns are unable to meet O&M requirements through their revenue sources (footnote 39).

C. Sustainability

28. The project will contribute to the wider goals of the Delta Plan 2100, which aims to ensure the sustainability of the country's long-term development aspirations by adopting integrated strategies and interventions to address the impact of climate change.[40] Each project *pourashava* will adopt a GESI-inclusive O&M plan with an improved asset management system, committing to adequate budgetary allocation for O&M and technical support and training to *pourashava* staff for enhanced O&M capacity. The project will support each *pourashava* to prepare, adopt, and implement a revenue enhancement plan, which will improve revenue coverage, valuation, collection, and taxpayer services.

D. Governance

29. **Financial management.** The assessed pre-mitigation financial management risk is *substantial* mainly because (i) the most of the dedicated accounts staff positions in the PMU and project implementation units (PIUs) are vacant; (ii) the fund flow is decentralized to the *pourashavas,* which lack experience in implementing ADB-financed projects; (iii) challenges in complying with ADB's disbursement procedures have been noted in ADB's ongoing LGED-implemented projects; (iv) manual accounting systems are used to record project expenditures; and (v) *pourashavas* are not audited annually. These risks will be mitigated by (i) filling the vacant accounts staff positions and engaging financial management experts to support the project at all levels, (ii) providing annual training in ADB's financial management requirements and disbursement procedures, (iii) including the project in the audit plan of LGED's internal audit function, (iv) strengthening *pourashavas*' accounts and audit committees to undertake regular internal audits, (v) incorporating comprehensive financial information as part of the quarterly progress reports submitted to ADB, and (vi) recording all projects transactions in computerized accounting software. As per established practice, the project will maintain separate books of accounts in accordance with accounting standards acceptable to ADB and the consolidated

[39] Financial Analysis and Economic Analysis (accessible from the list of linked documents in Appendix 2).
[40] The Delta Plan 2100 has six goals. The project will contribute to SDG 1 on ensuring safety from floods and climate disasters (footnote 13).

project financial statement will be audited annually by an independent auditor acceptable to ADB in accordance with International Standards on Auditing.

30. **Procurement**. All procurement and consulting activities shall be carried out in accordance with the ADB Procurement Policy (2017, as amended from time to time). The LGED has demonstrated experience in procuring goods, works, and consulting services in accordance with ADB procedures and requirements and satisfactory capacity in supporting *pourashavas* to implement similar multisector projects, including procurement. Value for money is expected to be achieved through efficiency gains from the use by each *pourashava* of national bidding documents (electronic Public Works 3-Document [ePW3-D]) suitable for local contractors and e-government procurement systems.

31. ADB's Anticorruption Policy (1998, as amended to date) was explained to and discussed with the government. The specific policy requirements and supplementary measures are described in the PAM (footnote 31).

E. Poverty, Social, and Gender

32. The project is classified as a targeted intervention for geographic poverty targeting. One in four people in Bangladesh continue to live in poverty, with 12.9% of the population suffering from extreme poverty.[41] The Household Income and Expenditure Survey 2016 highlights that the highest incidence of poverty (over 60%) occurs in climate-at-risk regions of Bangladesh. Coastal towns are characterized by high poverty incidence, which increases the vulnerability of the urban poor to the impacts of climate change. Coastal towns also suffer from large flood protection infrastructure deficits that exacerbate vulnerability to climate change. During disasters, the poor and vulnerable face financial losses through depleting savings and incomes; loss of productive assets and livelihoods; loss of human assets with disruption in education, health, and skills development; and loss of natural resources. The project will address the multiple dimensions of poverty through sustainable and resilient livelihoods, and investments in adaptations in infrastructure, capacity building, governance, and risk-informed urban planning. The project directly targets the poorest and most vulnerable households in the project towns. Sustainable and resilient livelihoods for the communities is a key focus area. The graduation approach will be adopted in six towns to provide a comprehensive support mechanism for vulnerable households to develop adaptive, diversified, and climate-resilient livelihoods.

33. The project is categorized *gender equity theme*. The project will ensure women's effective participation in subproject design and implementation, decision-making, and leadership in committees. The project will support at least 60% of vulnerable households, with 50% women beneficiaries under the graduation approach, which will be implemented with the support of civil society organizations. At least 50% women, including persons with disabilities, will receive livelihood improvement training. The project will construct EWCD-friendly infrastructures. It will enhance the institutional capacity of the PIU and LGED staff on GESI, climate and disaster risk assessment, NbS, and green solutions. Moreover, all towns will develop and approve GESI-responsive O&M plans with annual budget allocation. The project will introduce gender-responsive and socially inclusive urban space design guidelines and support the development of urban spaces in two project towns. Two social and gender development consultants will be hired to ensure the effective implementation of the GESI action plan.[42]

[41] Government of Bangladesh, Ministry of Planning, Statistics and Informatics Division. 2017. *Household Income and Expenditure Survey 2016*. Dhaka.
[42] Gender Equality and Social Inclusion Action Plan (accessible from the list of linked documents in Appendix 2).

F. Safeguards

34. In compliance with ADB's Safeguard Policy Statement (2009), the project is categorized B for environment, involuntary resettlement, and indigenous peoples.[43] The PMU will prepare semiannual safeguard monitoring reports for ADB's review and disclosure. A project grievance redress mechanism integrated with the *pourashavas*' existing complaint registration and redressal systems will be established and disclosed to the project's beneficiaries and/or affected communities before civil works contracts are awarded. The LGED has significant experience in implementing ADB-assisted projects (footnotes 12 and 17) and demonstrated commitments to managing environmental and social risks. Orientation on ADB policy was undertaken for PMU and consultants. A capacity development program on safeguards implementation will be provided for all PMU, PIUs, and *pourashava* staff.

35. **Environment (category B).** An environmental assessment and review framework and five draft initial environmental examination (IEE) reports were prepared for sample subprojects.[44] The assessment results show that the subprojects are unlikely to have any significant environmental impacts. Subprojects require compensatory plantation in a 1:2 ratio for trees cut. Most potential impacts are likely to be temporary in nature and can be mitigated with proven mitigation measures. The IEEs will be prepared for each subproject in each town. The environmental assessment and review framework will guide the preparation of environmental assessment reports, including IEEs and environmental management plans (EMPs), for the remaining subprojects after loan approval. The IEEs and EMPs will be updated based on the final design. All drafts and updated reports will be disclosed locally in accessible places and in language affected people and other stakeholders can understand and on ADB and project websites. The PMU and PIUs will obtain an environmental clearance certificate, as required, from the Department of Environment prior to contract award or the start of works and will ensure regulatory compliance. Institutional arrangements have been agreed upon for the implementation of the EMPs.

36. **Involuntary resettlement (category B).** A resettlement framework and resettlement planning documents have been prepared for sample subprojects (footnote 44). The sample subprojects are assessed to involve potentially significant impacts for 11 households (56 members), including 7 vulnerable households (38 members); insignificant impacts for 106 households (504 members), including 51 vulnerable households (289 members); and the loss of 268 trees. The proposed mitigation measures and safeguard planning documents for sample subprojects address these impacts adequately. No category A subprojects are envisaged, and none will be allowed. The social safeguards planning documents will be updated during the final design and detailed measurement survey. The resettlement framework will guide the preparation of resettlement planning documents for future subprojects after loan approval. The PMU will disclose the resettlement framework, resettlement plans, small ethnic communities (SEC) planning framework, resettlement and SEC plan, and due diligence reports on the project's official website, and the documents will be available in the local language and disclosed to affected persons. [45] The PMU will ensure that the resettlement planning documents are included in the bidding documents and civil works contracts.

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[43] ADB. Safeguard Categories.

[44] Jhalakathi cyclone shelter and access road, Jhalakathi urban roads, Bagerhat drainage, Bagerhat IWM, and Kuakata roads.

[45] The Government of Bangladesh requires use of the term "small ethnic communities" instead of indigenous peoples.

37. **Indigenous peoples (category B).** Six project towns report the presence of SEC. Of the six towns, Kuakata reports the highest proportion of SEC (1.67% of the total population). SEC populations in the remaining project towns are scattered and integrated in urban society. Six SEC households (26 family members) in Kuakata are assessed to face insignificant temporary loss of income and loss of trees, while 25 SEC households (103 family members) will benefit. The road subproject in Kuakata includes a roadside drainage component that was added based on the expressed needs of the SEC population. Ten SEC households also expressed a preference to provide the right to use a strip of land for drain construction without ownership transfer. The option of the negotiated settlement will also be provided to the 10 SEC families. No direct or indirect impacts on the dignity, human rights, livelihood systems, or natural or cultural resources of SEC are anticipated. The SEC planning framework and the resettlement and SEC plan for the Kuakata roads subproject have been prepared. The framework will guide the preparation of subprojects identified after loan approval.

G. Summary of Risk Assessment and Risk Management Plan

38. Significant risks and mitigation measures are summarized in Table 4 and described in detail in the risk assessment and risk management plan.[46]

Table 4: Summary of Risks and Mitigating Measures

Risks	Mitigation Measures
Limited financial management capacity in *pourashavas* will lead to improper financial management, noncompliance with ADB's financial requirements and disbursement delays.	Through output 3, ADB will provide capacity building in financial management, internal auditing, and ADB's financial management requirements and disbursement procedures and systems to staff of the PMU and PIUs to ensure robust and transparent project financial management. The PMU and PIUs will record all project transactions using computerized accounting software.
The lack of familiarity of project *pourashavas* with ADB's Procurement Policy, 2017 will lead to start-up delays and implementation delays.	Each *pourashava* will use national bidding documents (electronic Public Works 3-Document [ePW3-D]) suitable for local contractors and e-government procurement systems. ADB procurement clinics combined with project-specific training programs conducted by the PMU and relevant consultants will build the capacity of *pourashavas* concerning all procurement and contract management in the PIUs.
The implementation capacity of the LGED is stretched by the broad geographic coverage with multiple coastal towns and subprojects, resulting in project start-up delays and implementation problems.	ADB will provide sufficient capacity support to the LGED and the *pourashavas* through output 3. The LGED will allocate subprojects based on *pourashavas'* assessed absorptive capacity and performance. The LGED will strengthen its project management capacity by establishing the PMU with adequate provision of consulting services and assigning responsibilities to divisional and regional offices for project implementation. The project implementation period allows for potential delays.
The *pourashavas*' financial and O&M capacity are inadequate to ensure the sustainability of project assets.	The project will support each *pourashava* to increase revenue by adopting a revenue enhancement plan, achieving 85% tax collection efficiency, setting up a computerized accounting and billing system, and enhancing *pourashavas*' own-source revenue. Output 3 will support a gender and social inclusion-responsive O&M plan and monitor expenditures. In the event of any shortfalls, the government has agreed to support *pourashavas* through revenue grants to sustain their O&M expenditures.

ADB = Asian Development Bank, LGED = Local Government Engineering Department, O&M = operation and maintenance, PIU = project implementation unit, PMU = project management unit.
Source: Asian Development Bank.

[46] Risk Assessment and Risk Management Plan (accessible from the list of linked documents in Appendix 2).

IV. ASSURANCES AND CONDITIONS

39. The government has assured ADB that implementation of the project shall conform to all applicable ADB requirements, including those concerning anticorruption measures, safeguards, gender, procurement, consulting services, financial management, and disbursement as described in detail in the PAM and loan and grant documents.

40. The government has agreed with ADB on certain covenants for the project, which are set forth in the draft loan and grant agreements and project agreement.

V. RECOMMENDATION

41. I am satisfied that the proposed loans and grant would comply with the Articles of Agreement of the Asian Development Bank (ADB) and recommend that the Board approve:

(i) the loan of $96,000,000 to the People's Republic of Bangladesh for the Coastal Towns Climate Resilience Project, from ADB's ordinary capital resources, in regular terms, with interest to be determined in accordance with ADB's Flexible Loan Product; for a term of 25 years, including a grace period of 5 years; and such other terms and conditions as are substantially in accordance with those set forth in the draft loan and project agreements presented to the Board;

(ii) the loan of $150,000,000 to the People's Republic of Bangladesh for the Coastal Towns Climate Resilience Project, from ADB's ordinary capital resources, in concessional terms, with an interest charge at the rate of 2% per year during the grace period and thereafter; for a term of 25 years, including a grace period of 5 years; and such other terms and conditions as are substantially in accordance with those set forth in the draft loan and project agreements presented to the Board; and

(iii) the grant not exceeding $4,000,000 to the People's Republic of Bangladesh, from ADB's Special Funds resources (Asian Development Fund) for the Coastal Towns Climate Resilience Project, on terms and conditions that are substantially in accordance with those set forth in the draft grant and project agreements presented to the Board.

Masatsugu Asakawa
President

3 October 2022

DESIGN AND MONITORING FRAMEWORK

Impacts the Project is Aligned with

Higher and sustainable growth trajectories achieved in the face of the various weather-related natural hazards and risk. (Delta Plan 2100, 2018) [a]
Improved livability of coastal towns. (Making Vision 2041 a Reality – Perspective Plan of Bangladesh, 2021–2041, 2020)[b]

Results Chain	Performance Indicators	Data Sources and Reporting Mechanisms	Risks and Critical Assumptions
Outcome Climate and disaster resilience of coastal towns strengthened, including benefiting the poor and women	By 2030: a. Capacity of EWCD-friendly cyclone shelter increased for 10,000 people with enhanced safety features[c] and spaces for 5000 women (2022 baseline: 0) (OP2.5.2, OP3.2, OP4.1) b. At least 75% of households in project areas reported reduced inundation for less than 3 days (2022 baseline: 43%) (OP3.2, OP4.1) c. Livelihood improved[d] for 1,500 women in six project pourashavas (2022 baseline: 0) (OP4.1) d. 85% holding tax collection efficiency achieved in 20 pourashavas (2022 baseline: 0 towns)	a, b, and d. LGED annual reports and project quarterly progress reports c. Baseline and endline survey for graduation program	A: Climate change impacts are within projected levels. A: Pourashava (local government) continues to prioritize governance improvement.
Outputs 1. Municipal infrastructure for resilience improved	By 2029 (2022 baseline: 0) 1a. 25 EWCD-friendly cyclone shelters constructed with early warning system (OP 2.5.2, OP 3.2.5) 1b. 9.7 km of emergency access roads to cyclone shelters upgraded or constructed (OP 3.2.5, OP4.1.2) 1c. 200 km of stormwater drainage constructed or rehabilitated (OP 3.2.5, OP 4.1.2) 1d. NbS piloted in at least three towns (OP 3.2.5) 1e. Three integrated waste management[e] subprojects completed (OP 4.3.1) 1f. 238 km of roads with stormwater drainage, bridges, and culverts rehabilitated or constructed (OP3.2.5, OP 4.1.2)	1a.–1j. Project quarterly progress reports	A: *Pourashavas* achieve governance improvement criteria to be eligible for project investments.

Results Chain	Performance Indicators	Data Sources and Reporting Mechanisms	Risks and Critical Assumptions
	1g. At least two gender-responsive and socially inclusive[f] urban open spaces[g] constructed (OP1.3.1) 1h. 150 EWCD-friendly sanitation facilities, including community latrines,[h] constructed serving poor households (OP 1.3.1) 1i. Slum improvement program implemented in at least 90% of project *pourashavas* that have slums (2021 baseline: Not implemented) 1j. At least six local EWCD-friendly socioeconomic infrastructures[i] developed (OP1.3.1) By 2029: (2022 baseline: 0)		
2. Resilient livelihoods enhanced	2a. 60% of vulnerable households (including 50% female beneficiaries) covered in the graduation program in six project *pourashavas* (OP 2.5.1) 2b. 50% women, including persons with disabilities, reported increased skills for resilient livelihoods in six project *pourashavas* (OP2.1.1, OP 2.5.1) 2c. Inventory of productive assets of 70% of low-income households documented for insurance (OP 2.5.1) By 2029: (2022 baseline: Not applicable)	2a and 2c. Project quarterly progress reports 2b. Post-training survey reports	
3. Institutional capacity, governance, and climate awareness strengthened	3a. Risk-informed urban development plan and poverty reduction action plan of each town submitted to *pourashava* council, and development activities controlled[j] (OP 3.2.4, OP4.2, OP 6.2.1) 3b. At least 225 staff of LGED and *pourashavas,* including 90% of eligible female staff, reported increased knowledge on climate and disaster risk assessment to inform urban development planning (OP2.3.2, OP 6.1.1) 3c. At least 225 staff of LGED and *pourashavas,* including 90% of eligible female staff, reported	3a.–3i. Project quarterly progress reports	

Results Chain	Performance Indicators	Data Sources and Reporting Mechanisms	Risks and Critical Assumptions
	increased knowledge on NbS and green solutions (OP 6.1.1) 3d. Disaster management committee on disaster preparedness measures and cyclone shelter management committees operationalized[k] in each project *pourashava* (OP 6.2.4) 3e. Standing committees on women's and children's affairs, poverty reduction, and slum improvement operationalized in each project *pourashava* (OP 6.2.4) 3f. Revenue enhancement plan approved by each project *pourashava* (2022 baseline: No plan exists (OP 6.1) 3g. Computerized tax records and billings systems made functional in each project *pourashava* (OP 6.1) 3h. Annual gender-responsive O&M plans approved[l] and annual budget allocated by each project *pourashava* (OP 6.1) 3i. Gender-responsive and socially inclusive urban space design guidelines incorporated in the design of urban open spaces of two project *pourashavas* (OP 6.2.1)		

Key Activities with Milestones

1. Municipal infrastructure for resilience improved

1.1 Prepare integrated drainage plan for 10 towns with high climate risk impact (Q4 2023).
1.2 Design municipal infrastructure for climate resilience improvement (stage I) (Q4 2026).
1.3 Conduct procurement for (Q4 2025) and construct stage I infrastructure works (Q3 2028)
1.4 Design socioeconomic infrastructure (stage II) works (Q3 2026).
1.5 Conduct procurement for and construct stage II infrastructure works (Q1 2029).

2. Resilient livelihoods enhanced

2.1 Conduct market assessment, skills-mapping, and training needs assessment (Q2 2025).
2.2 Prepare inventory of productive assets of each household (Q2 2024).
2.3 Provide skills training and raise awareness on climate adaptation (Q1 2029).

3. Institutional capacity, governance, and climate awareness strengthened

3.1 Evaluate performance for entry level (stage I) criteria of all project *pourashavas* (Q3 2022).
3.2 Conduct orientation on the stage I and stage II criteria to project *pourashavas* (Q2 2023).
3.3 Sign partnership agreement with project *pourashavas* (Q4 2022).
3.4 Establish and operationalize disaster management standing committees and cyclone shelter management committees in all *pourashavas* (Q1 2029).
3.5 Select type of NbS for piloting and awareness raising (Q2 2026).
3.6 Support each *pourashava* in revenue enhancement (Q3 2028).
3.7 Prepare O&M plan and support implementation and monitoring (Q1 2029).
3.8 Evaluate *pourashavas*' performance in accessing funds for socioeconomic infrastructure (Q2 2025).

3.9 Conduct training, climate awareness, and implementation of risk-informed urban plans (Q1 2029).
Project Management Activities
Procure works packages (Q4 2026).
Recruit and mobilize project management consultant (Q2 2023).
Recruit and mobilize detailed design service consultant (Q2 2023).
Recruit and mobilize institutional capacity and community development consultant (Q2 2023).
Recruit and mobilize two nongovernment organizations (Q2 2023).
Conduct review missions, midterm review, and project completion review (2022–2029).
Inputs
Asian Development Bank: $250 million (loan of $96 million from regular OCR, $150 million from concessional OCR lending, and grant of $4.0 million from Asian Development Fund)
Government of Bangladesh: $60 million

A = assumption; EWCD = elderly (older person), women, children, and persons with disabilities; km = kilometer; LGED = Local Government Engineering Department; NbS = nature-based solutions; O&M = operation and maintenance; OCR = ordinary capital resources; OP = operational priority; Q = quarter.

[a] Government of Bangladesh. 2018. *Delta Plan 2100*. Dhaka.

[b] Government of Bangladesh. 2020. *Making Vision 2041 a Reality*–Perspective Plan of Bangladesh, *2021–2041*. Dhaka.

[c] Enhanced safety features for women and girls will include separate space for women (including nursing mothers), adequate lighting, signage clearly displaying helpline numbers, space for livelihood activities during and after climate events, and mobilization of female cyclone shelter volunteers to address women's specific needs. EWCD-friendly cyclone shelters will include ramps for easy access by the elderly (older persons) and persons with locomotor disability in the building and toilets, tactile flooring for stairs and entrances for visually impaired persons, separate amenities for women and men including toilets, and points for safe drinking water.

[d] Income levels enhanced to at least match the national minimum wage through improved skills and access to livelihood opportunities, measured by endline survey.

[e] Waste management service chain from source, collection, recovery, treatment, and disposal.

[f] Features that enhance women's safety and feelings of safety with special focus on lighting, visibility, pedestrianization, ease of access for women including those with babies and children, and signage with helpline numbers. Each open space will be designed considering the perspective of women and girls who will be the users.

[g] Open space is land and/or water area with its surface open to the sky, consciously acquired or publicly regulated to serve conservation and urban shaping function in addition to providing recreational opportunities.

[h] EWCD design features for toilets include features such as doors, windows, ventilation, and buckets for disposal of menstrual pads that are selected considering the safety, security, and privacy for women and girls; water taps, knobs and latches of toilet doors and windows at suitable heights and convenience for different ages persons; ramp-ups to toilets, sufficient space for a wheelchair in the passage, and hand railing in the passage and within the toilet cubicles.

[i] Includes (i) allocated space for women sellers in markets; (ii) separate toilets for women with water facilities in markets, bus terminals, and boat landings; and (iii) adequate lighting for commercially important roads.

[j] Enforce at least 80% control of new building construction, reconstruction activities, land development and effective prevention of encroachment on public land (such as natural ecosystem, river, canal, and *khas* [government-owned]) land practiced.

[k] Meets at least twice a year and functions effectively as per terms of reference, meetings are publicly announced and involve active participation by women and poor, and minutes are prepared and publicly disclosed.

[l] O&M plans will include targets for women members in committees, provision for regular monitoring and maintenance of gender-responsive infrastructure, and targets for women's employment in O&M.

Contribution to Strategy 2030 Operational Priorities:

Expected values and methodological details for all OP indicators to which this operation will contribute results are detailed in Contribution to Strategy 2030 Operational Priorities (accessible from the list of linked documents in Appendix 2).

Source: Asian Development Bank.

LIST OF LINKED DOCUMENTS

http://www.adb.org/Documents/RRPs/?id=55201-001-3

1. Loan Agreement: Ordinary Operations
2. Loan Agreement: Ordinary Operations (Concessional)
3. Grant Agreement
4. Project Agreement
5. Sector Assessment (Summary): Water and Other Urban Infrastructure and Services
6. Project Administration Manual
7. Financial Analysis
8. Economic Analysis
9. Summary Poverty Reduction and Social Strategy
10. Risk Assessment and Risk Management Plan
11. Contribution to Strategy 2030 Operational Priorities
12. Climate Change Assessment
13. Gender Equality and Social Inclusion Action Plan
14. Initial Environmental Examination: Construction of Multipurpose Cyclone Shelter Under Jhalakathi Pourashava
15. Initial Environmental Examination: Construction/Improvement of Drains in Bagerhat Pourashava
16. Initial Environmental Examination: Construction/Improvement of Roads and Roadside Drain in Kuakata Pourashava
17. Initial Environmental Examination: Construction/Improvement of Roads and Roadside Drains in Jhalakathi Pourashava
18. Initial Environmental Examination: Integrated Waste Management for Bagerhat Pourashava
19. Environmental Assessment and Review Framework
20. Resettlement Plan: Construction/Improvement of Roads and Roadside Drains in Jhalakathi Pourashava
21. Land Acquisition and Resettlement Due Diligence Report: Construction of Multipurpose Cyclone Shelter Under Jhalakathi Pourashava
22. Resettlement Plan: Integrated Waste Management for Bagerhat Pourashava
23. Resettlement Plan: Construction and Improvement of Reinforced Cement Concrete Drains in Bagerhat Pourashava – Length: 5.557 km
24. Resettlement and Small Ethnic Communities Plan: Kuakata Town Roads Subproject
25. Small Ethnic Communities Planning Framework
26. Resettlement Framework

Supplementary Document

27. Climate Risk and Adaptation Assessment