Government of the People's Republic of Bangladesh
Bangladesh Planning Commission
General Economics Division

Delta Appraisal Framework (DAF)

October 2024

Table of Contents

Incorporation of Delta Appraisal Framework into Guidelines of Project Preparation, Processing, Approval and Revision of Public Sector Investment Projects	**1-4**
Annex-A: Composition, Roles and Responsibilities of Project/Program Selection Committee (PPSC)	**5-7**
Annex B: Project Concept Note Format	**8-9**
Annex-C: Scoring Guideline of Multi-Criteria Analysis	**10**
Multi-criteria with method of scoring for Delta related project appraisal	**11-17**
Multi-criteria with method of scoring for Delta related project selection	**18**
Annex-D: Feasibility Study Format	**19-25**
Annex-E: Development Project Proposal (DPP) Format	**26-34**
Annex-F: Revised Development Project Proposal (RDPP) Format	**35-48**
Annex-G: Manual for Preparation of Development Project Proposal (DPP)	**49-55**

Acronyms and Abbreviation

ADM	Adaptive Delta Management
ADP	Annual Development Program
BCR	Benefit Cost Ratio
BDP2100	Bangladesh Delta Plan 2100
DAF	Delta Appraisal Framework
DIA	Disaster Impact Assessment
DPP	Development Project Proposal
DRIP	Disaster and Climate Risk Information Platform
DSIs	Decesion Support Indicators
ECNEC	Executive Committee of the National Economic Council
GED	General Economic Division
GIS	Geographic Information System
GoB	Government of Bangladesh
GW	Ground Water
IMED	Implementation Monitoring and Evaluation Division
IRR	Internal Rate of Return
MCA	Multi Criteria Analysis
NEC	National Economic Council
NGO	Non-governmental organization
NPV	Net Present Value
MTBF	Medium Term Budgetary Framework
EIA	Environmental Impact Assessment
PA	Project Aid
PIM	Public Investment Management
PPP	Public Private Partnership
PPSC	Project/Program Selection Committee
SDG	Sustainable Development Goals
SIs	State Indicators
SW	Surface Water

Incorporation of Delta Appraisal Framework into Guidelines of Project Preparation, Processing, Approval and Revision of Public Sector Investment Projects

Currently, public sector projects are prepared, processed, and appraised following "***Guidelines of Project preparation, processing, approval and revision of public sector Investment Projects***" of the government of Bangladesh. These guidelines are currently not yet aligned substantially with the objectives, principles and approaches of Bangladesh Delta Plan (BDP2100), especially the principles of Adaptive Delta Management (ADM). As a result, BDP2100 related projects are currently prepared and approved without considering aforementioned strategic requirements of BDP2100, particularly the ADM. To address this issue, a Delta Appraisal Framework (DAF) has been prepared.

The purpose of the DAF is to mainstreaming ADM into the system of public sector planning and approval of Delta related projects, to ensure that strategic directives of BDP2100 concerning climate and socio-economic changes are embedded in the development project/program selection and appraisal process and meet the government's overall development objectives to become a prosperous country beyond 2041.

The DAF therefore will supplement the existing processes of project preparation, processing, selection, appraisal, and approval for BDP2100 related investment projects, by incorporating specific criteria and indicators to be evaluated for the goals, strategies of BDP2100 and principles for ADM. The DAF is a tool to select and appraise quality projects/ programs through qualitative and quantitative assessment of potential environmental and socio-economic impacts under present and future climate change and socio-economic uncertainties including demographic changes.

1. DAF will be used for the selection and preparation of new and unapproved BDP2100 related project/program for the purpose of inclusion in:
   - BDP2100 investment plan updated and/or prepared by the Delta Wing and PPSC of the GED, Bangladesh Planning Commission, and;
   - upcoming Annual Development Program (ADP)/ Revised ADP (RADP) prepared by the Programming Division of the Bangladesh Planning Commission.

2. DAF will supplement the existing "project appraisal process" for approval of the project at Bangladesh Planning Commission so that BDP2100 goals, strategies and approaches are duly considered in the project planning, approval process and implementation arrangements.

For inclusion in ADP/RADP and IP, the ***project preparation and selection*** need to align with the ADM principles and other BDP2100 related strategic requirements. The preliminary project concept note prepared by the implementing agency (**Annex-B**) should include information as required for Delta/BDP2100 project selection.

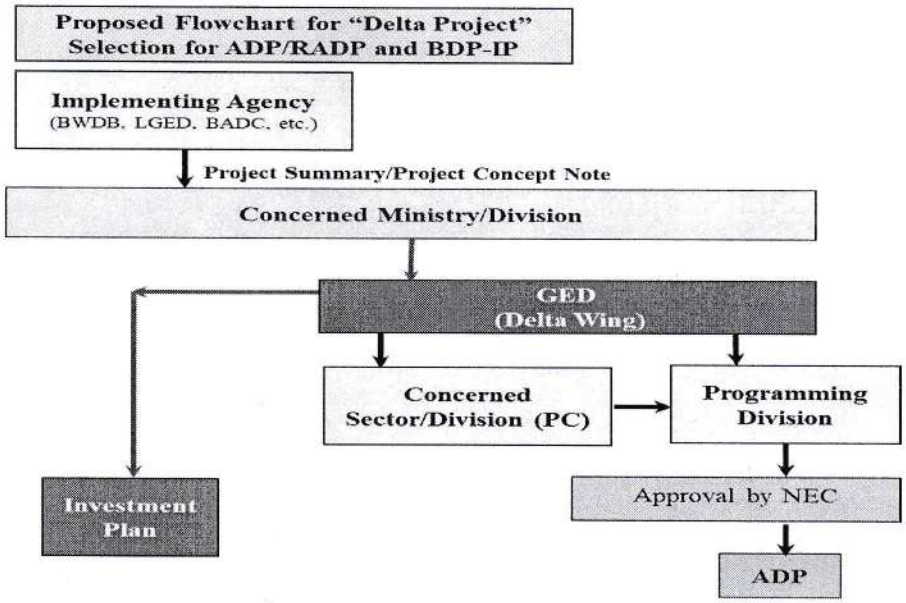

Figure 1: Institutional linkages for Inclusion of selected projects in ADP and BDP IP

Note: red arrows represent new steps in existing system

A project concept note sent to the Programming Division for inclusion in the ADP/RADP needs endorsement as "Delta related project" by Delta Wing.

This requires a selection process at Delta Wing/PPSC (see **Annex-A**) through a simplified multi-criteria analyses. The candidate projects are presented to the PPSC with the scoring rates for each individual criteria. PPSC considers whether the project is a Delta related based on the presented information. The process of selection and institutional linkages are shown in Figure 1. In the selection process for inclusion in the ADP/RADP, project readiness is also an important criteria to be taken into consideration.

For the selection of BDP2100 related projects/programs the following criteria will be used:

Criteria for selection of BDP2100 related projects

1. Criteria Related to BDP/Sectoral Policy/Plan/SDGs Alignment
    1. Project Objective alignments with BDP2100 Goals and Strategy
        i. *BDP2100 goals*
        ii. *Strategy and sub-strategies of BDP2100*
    2. Alignment with concerned sectoral goals and objectives.
    3. Alignment with Sustainable Development Goals (SDG) those are linked to the achievement of BDP2100 objectives
2. Criteria for ADM principles
    1. Climate vulnerability and risk
    2. Cost of Delta Component (DC)
    3. Robustness (qualitative)
    4. Flexibility and Scalability (qualitative)
3. Criteria for Cross Sectoral Integration, Cost/Benefit and Others
    1. Cross sectoral integration/ non-structural integration: integrated land use plan
    2. Project Readiness

Appraisal process of project/program for approval is proposed to be optimized through appraisal at Delta Wing and mainstreaming essential review through proposed DAF. The appraisal at Delta Wing is to be based on the assessment made in the feasibility studies of the proposed projects. The process of appraisal of Delta related project/program and institutional linkages are shown in Figure 2.

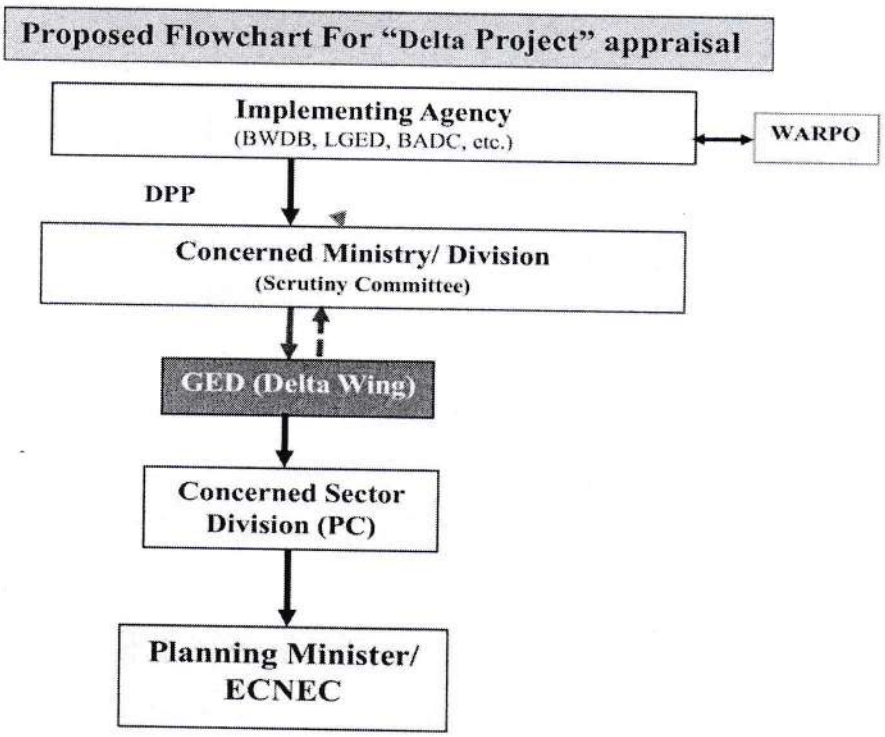

Figure 2: Institutional linkages from preparation to approval of a project
(Note: red arrows represent new steps in existing system)

DAF adopts a Multi-criteria Analysis (MCA) for the appraisal of BDP2100 related projects/programs. The total score of a project will be measured by adding the value of individual criteria. The PPSC assesses based on the scoring rates for each individual criteria whether the project is a as Delta related project The appraisal of a candidate project/program is recommended to use full advantage of indicators generated in the feasibility studies and translate them to score criteria. Adequate climate relevant analysis is required in the feasibility study of the proposed project. The criteria that will be used in selecting and appraising the BDP2100 related projects are illustrated below and further elaborated in **Annex-C**:

Criteria for appraisal of BDP 2100 related projects

1. Criteria Related to BDP/Sectoral Policy/Plan/SDGs Alignment
    1. Project Objective alignments with BDP2100 Goals and Strategy
        - *i. BDP2100 goals*
        - *ii. Strategy and sub-strategies of BDP2100*

2. Alignment with concerned sectoral goals and objectives.
3. Alignment with Sustainable Development Goals (SDG) those are linked to the achievement of BDP2100 objectives

2. Criteria for ADM principles
    1. Climate vulnerability and risk
    2. Cost of Delta Component (DC)
    3. Cost of Climate Change Component (CC)
    4. Robustness
    5. Flexibility and Scalability

3. Criteria for Cross Sectoral Integration, Cost/Benefit and Others
    1. Cross sectoral integration/ non-structural integration: integrated land use plan
    2. Contribution to Climate Mitigation
    3. Contribution to Environment, Ecosystem and Biodiversity Restoration and Conservation
    4. Impact on Livelihood and Income
    5. Benefit-Cost Ratio
        i. Economic
        ii. Financial

In order to use DAF in the appraisal process, changes have been suggested in the related documents i.e., feasibility study report format (**Annex-D**) and DPP format (**Annex-E**).

Annex-A: Composition, Roles and Responsibilities of Project/Program Selection Committee (PPSC)

গণপ্রজাতন্ত্রী বাংলাদেশ সরকার
পরিকল্পনা মন্ত্রণালয়
পরিকল্পনা বিভাগ
এনইসি-একনেক ও সমন্বয় অনুবিভাগ

নং-২০.০০.০০০০.৪০৪.১৪.০৬১.২০২০ (অংশ-২)২৭৭

তারিখ: ০৯ কার্তিক ১৪২৯ / ২৫ অক্টোবর ২০২২

পরিপত্র

বিষয়: 'বাংলাদেশ ডেল্টা প্ল্যান-২১০০' সংশ্লিষ্ট বিনিয়োগ প্রকল্প/প্রোগ্রাম বাছাই কমিটি (পিপিএসসি) গঠন

সরকারি খাতে উন্নয়ন প্রকল্প প্রণয়ন, প্রক্রিয়াকরণ, অনুমোদন ও সংশোধন পদ্ধতি সম্পর্কে পরিকল্পনা বিভাগ কর্তৃক ১২ জুন ২০২২ তারিখে ২০.০০.০০০০.৪০৪.০১৪.৬১.২০২০(অংশ-১)/১৩৩ স্মারকে জারিকৃত পরিপত্রের অনুবৃত্তিক্রমে জানানো যাচ্ছে যে, 'বাংলাদেশ ডেল্টা প্ল্যান-২১০০' সংশ্লিষ্ট বিনিয়োগ প্রকল্প/কর্মসূচি যাচাই-বাছাইপূর্বক নির্বাচন এবং পরিবীক্ষণ ও মূল্যায়নের জন্য প্রকল্প/প্রোগ্রাম বাছাই কমিটি (পিপিএসসি) গঠনের সিদ্ধান্ত হয়েছে।

২. বর্ণিত পরিপ্রেক্ষিতে 'বাংলাদেশ ডেল্টা প্ল্যান-২১০০' সংশ্লিষ্ট বিনিয়োগ প্রকল্প/কর্মসূচি যাচাই-বাছাইপূর্বক নির্বাচন এবং পরিবীক্ষণ ও মূল্যায়নের জন্য গঠিত **প্রকল্প/প্রোগ্রাম বাছাই কমিটি (পিপিএসসি)** সংযুক্ত করা হল। 'বাংলাদেশ ডেল্টা প্ল্যান-২১০০' সংশ্লিষ্ট সকল বিনিয়োগ প্রকল্প/কর্মসূচির প্রস্তাব পিপিএসসি'র সুপারিশ গ্রহণপূর্বক উদ্যোগী মন্ত্রণালয়/বিভাগ হতে পরিকল্পনা কমিশনের সংশ্লিষ্ট সেক্টর-বিভাগে প্রেরণ করতে হবে।

সংযুক্ত: বর্ণনা মোতাবেক (এক পাতা)।

২৫/১০/২২
মোঃ মামুন-অল-রশীদ
সচিব
পরিকল্পনা বিভাগ

কার্যার্থে বিতরণ:

১. মন্ত্রিপরিষদ সচিব, মন্ত্রিপরিষদ বিভাগ, বাংলাদেশ সচিবালয়, ঢাকা।
২. প্রধানমন্ত্রীর মুখ্য সচিব, প্রধানমন্ত্রীর কার্যালয়, তেজগাঁও, ঢাকা।
৩. সিনিয়র সচিব/সচিব, ----------।
৪. সদস্য, ----------, পরিকল্পনা কমিশন, শেরেবাংলা নগর, ঢাকা।

সদয় জ্ঞাতার্থে বিতরণ:

১. মাননীয় প্রধানমন্ত্রীর একান্ত সচিব ১, প্রধানমন্ত্রীর কার্যালয়, তেজগাঁও, ঢাকা।
২. মাননীয় মন্ত্রীর একান্ত সচিব, পরিকল্পনা মন্ত্রণালয়, শেরেবাংলা নগর, ঢাকা।
৩. মাননীয় প্রতিমন্ত্রীর একান্ত সচিব, পরিকল্পনা মন্ত্রণালয়, শেরেবাংলা নগর, ঢাকা।

'বাংলাদেশ ডেল্টা প্ল্যান-২১০০' সংশ্লিষ্ট বিনিয়োগ প্রকল্প/প্রোগ্রাম বাছাই কমিটি (পিপিএসসি)

১.	সদস্য, সাধারণ অর্থনীতি বিভাগ, পরিকল্পনা কমিশন	সভাপতি
২.	পরিকল্পনা বিভাগের প্রতিনিধি	সদস্য
৩.	পানি সম্পদ মন্ত্রণালয়ের প্রতিনিধি	সদস্য
৪.	অর্থ বিভাগের প্রতিনিধি	সদস্য
৫.	পরিবেশ, বন ও জলবায়ু পরিবর্তন মন্ত্রণালয়ের প্রতিনিধি	সদস্য
৬.	দুর্যোগ ব্যবস্থাপনা ও ত্রাণ মন্ত্রণালয়ের প্রতিনিধি	সদস্য
৭.	কৃষি মন্ত্রণালয়ের প্রতিনিধি	সদস্য
৮.	ভূমি মন্ত্রণালয়ের প্রতিনিধি	সদস্য
৯.	মৎস্য ও প্রাণিসম্পদ মন্ত্রণালয়ের প্রতিনিধি	সদস্য
১০.	খাদ্য মন্ত্রণালয়ের প্রতিনিধি	সদস্য
১১.	নৌ-পরিবহন মন্ত্রণালয়ের প্রতিনিধি	সদস্য
১২.	পরিকল্পনা কমিশনের কার্যক্রম বিভাগের প্রতিনিধি	সদস্য
১৩.	অর্থনৈতিক সম্পর্ক বিভাগের প্রতিনিধি	সদস্য
১৪.	বাস্তবায়ন পরিবীক্ষণ ও মূল্যায়ন বিভাগের প্রতিনিধি	সদস্য
১৫.	পরিকল্পনা কমিশনের সংশ্লিষ্ট সেক্টরের প্রতিনিধি	সদস্য
১৬.	প্রধান, সাধারণ অর্থনীতি বিভাগ, পরিকল্পনা কমিশন	সদস্য সচিব

বিঃ দ্রঃ

১. পিপিএসসি-তে মন্ত্রণালয়/বিভাগের প্রতিনিধি যুগ্মসচিব/যুগ্মপ্রধান পদমর্যাদার কর্মকর্তা হবেন।

২. পিপিএসসি-তে উল্লিখিত মন্ত্রণালয়/বিভাগের বাইরে অন্য কোন মন্ত্রণালয়/বিভাগের প্রকল্প প্রস্তাব উপস্থাপিত হলে উদ্যোগী মন্ত্রণালয়/বিভাগের প্রতিনিধি সভায় আমন্ত্রিত হবেন।

৩. বাংলাদেশ পরিকল্পনা কমিশনের সাধারণ অর্থনীতি বিভাগ প্রকল্প/প্রোগ্রাম বাছাই কমিটি (পিপিএসসি)-কে প্রয়োজনীয় সাচিবিক সহায়তা প্রদান করবে।

'বাংলাদেশ ডেল্টা প্ল্যান-২১০০' সংশ্লিষ্ট প্রকল্প/প্রোগ্রাম বাছাই কমিটির (পিপিএসসি) কার্যপরিধি:

(i) ডেল্টা বিনিয়োগ পরিকল্পনা/কর্মসূচির জন্য যথাযথ প্রকল্প এবং কর্মসূচি বাছাই;

(ii) ডেল্টা বিনিয়োগ পরিকল্পনা/কর্মসূচি বাস্তবায়ন অগ্রগতি পরিবীক্ষণ ও মূল্যায়ন; এবং

iii) প্রয়োজনে নতুন সদস্য কো-অপ্ট করা এবং প্রকল্প/প্রোগ্রাম বাছাইয়ে কারিগরি উপ-কমিটি গঠনপূর্বক মতামত গ্রহণ।

Annex B: Project Concept Note Format

Concept Note Format for Project/Program Selection

1.	**Name of the Project**							
2.	(a) Sponsoring Ministry/Division:			(b) Implementing Agency (lead):				
	(c) Implementing Agency('s) (partners):			(d) Project Implementation Period(s)				
3.	**Sector**	**Sub Sector**						
4.	**Project Location** (attach a map)							
	(a) BDP Hotspot:			(b) Hydrologic Region:				
	(c) District: (d) Upazila: (e) City Corporation/ Pouroshova:			(f) Latitude: Longitude:				
5.	**Project Objectives and Targets**							
6.	**Relevant BDP2100 Goal**							
7.	**Relevant Sub-Strategies of BDP2100**							
8.	**Related sectoral objectives**							
9.	**Relevant SDG**							
10.	**Pre-feasibility/ Feasibility/DPP status:**							
11.	**Major Components of the Project**							
12.	**Socio-Economic baseline of project area** (qualitative and quantitative)							
	Population (in million)		Population below poverty level (%)					
	Population dependent on agriculture (%)		Population dependent on fishery (%)					
	Population dependent on other occupation (%)		Other related information (if any)					
13.	Loss and damage cost without project (Taka in lakh)	Agriculture		Housing/infra		Others (please mention)		
14.	Estimated Project Cost (Taka in lakh)	(GoB & PA, PPP/GCF, Own Fund)	Delta Component (Taka in lakh)					
15.	Benefits of the Project (Economic/Social/socioeconomic/qualitative/quantitative)							
16.	Climate risk and vulnerability in the mid-term (2050-Moderate)							
i	Moderate Climate Change Scenario							
ii	Extreme Climate Change Scenario							
17.	**Delta Issues and Challenges** (quantitively /qualitative) - Write Yes or No							
	Water logging		Comments					
	Inundation due to Storm Surge		Comments					
	Flood area		Comments					
	Damage in crop production (Taka in lakh)		Comments					
	Damage of other infrastructure (Taka in lakh)		Comments					
	Annual Erosion (km)		Comments					
	Sedimentation		Comments					
	Others (if any)		Comments					
18.	**Environmental issues** (qualitative/quantitively) - Write Yes or No							
	Reduction of water retention area		Comments					
	Connectivity with river		Comments					
	Spatial planning/ urbanization and industrialization		Comments					
	Presence of Environmentally Critical Area		Comments					
	Others (if any)		Comments					
19.	**People's perception about climate change risk /vulnerabilities and climate proofing/ development**							
20.	**Cross sectoral integration**							
	Specify sectors (Impact on other sectors)							

Annex-C: Scoring Guideline of Multi-Criteria Analysis

Multi-criteria with method of scoring for Delta related project appraisal

Table 2: Scoring guidelines and methods of MCA for appraisal of Delta related project

Sl. No.	Criteria for Project Appraisal	Descriptions and Guidelines		Scoring Methods
A. Criteria Related to BDP/Sectoral Policy/Plan/SDGs Alignment				
1	**Project Objective alignments with BDP2100 Goals, Strategy and Targets**			
i	**BDP2100 Specific Goal**	Align project goals and objectives with BDP2100 goals. Project may be formulated to achieve one or two objectives related or aligned to one or two BDP2100 Goals. BDP2100 has 6 specific goals that contribute to the higher-level goals. The longer-term goals translated into targets (food production, disaster risk reduction, economic growth poverty reduction, environmental sustainability) in the Five-Year Plans (FYPs) and breakups in the Annual development program (ADPs), which need to be translated by sectoral Ministry and Agencies into projects and program etc.	Qualitatively	If project objectives are aligned with - any of six BDP2100 goals then score 3; - score 1 for aligning with each additional one goal, but not exceeding maximum score 5.
ii	**Strategy and sub-strategies of BDP2100**	There are immediate and medium-term challenges that must be addressed now and soon, which need to be looked upon through robust, adaptive, and integrated strategies, and equitable water governance. BDP2100 has proposed several strategies and sub-strategies. Identify the project measures/actions proposed for the short-medium term time frame that are aligned with BDP2100 strategies. A project can propose multiple strategies with targets to achieve its objectives. A clear statement is expected how strategies with targets are aligned with the project measures/actions.	Qualitatively	Score 3 for alignment with one strategy/sub-strategy/activity. Score 1 for aligning with additional one strategy/sub-strategy/activity. Maximum 3 strategies/sub-strategy/activities alignment may be valued with maximum score of 5.
2	**Alignment with sectoral goals and objectives**	Align project goals and objectives with key sectoral plan, policies or directive to integrate related sectoral interest and obligations.	Qualitatively	Score 3 for aligning with one sectoral objective. Score 1 for aligning with additional one sectoral objective. Maximum 3 sectoral objective alignment may be valued with maximum score of 5.

Sl. No.	Criteria for Project Appraisal	Descriptions and Guidelines		Scoring Methods
3	**Alignment with BDP relevant Sustainable Development Goals (SDG)**	Align project goals and objectives with sustainable development goals relevant to BDP2100. In this regard, following SDGs can be considered mainly. However, if there are similarity with SDG goals other than these 6 goals, those should also be taken into consideration. Goal 2: End hunger, achieve food security and improve nutrition and promote sustainable agriculture. Goal 6. Ensure availability and sustainable management of water and sanitation for all. Goal 7: Access to affordable and clean energy. Goal 9: Build Resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation. Goal 13: *Take urgent action to combat climate change and its impacts.* Goal 14: *Conserve and sustainably use the oceans, seas and marine resources for sustainable development.*	Qualitatively	Score 3 for aligning with one SDG goal. Score 1 for aligning with additional one SDG goal. Maximum 3 SDG goal alignment may be valued with maximum score of 5.
B. Criteria for ADM principles				
4	**Climate vulnerability and risk**	The project area should be spatially identified in GIS referenced climate change hazards/ vulnerability/ risk maps available in Database. The Disaster and Climate Risk Information Platform (DRIP) software may be considered while using data. The most important hazards like flood, salinity, groundwater depletion, drainage congestion, water quality and availability, etc. should be indexed for vulnerability and risk to be used for scoring in the medium term (up to 2050) under moderate (SSP2) and extreme (SSP5) climate change scenario.	Quantitively	Assess vulnerability in medium term (up to 2050) under moderate (SSP2) and extreme (SSP5) climate change scenario. Assign scoring as highly vulnerable area =3; moderately vulnerable area =2 low vulnerable area =1; for any one hazard. Score 1 for vulnerability due to additional one hazard. Maximum three hazard may be considered with maximum score of 5 for moderate climate change scenario (SSP2). Similarly, a maximum of three hazards may be considered with

Sl. No.	Criteria for Project Appraisal	Descriptions and Guidelines		Scoring Methods
				maximum score of 5 for extreme climate change scenario (SSP5). Thus, a maximum value of 10 can be scored considering both moderate (SSP2) and extreme (SSP5) climate change scenario.
5	**Cost of Delta Component (DC)**	Delta component is activities proposed to address the issues and challenges of flood, cyclonic storm surge, water logging, draught, freshwater scarcity, sanitation, ground water depletion, land use change, land reclamation, sediment management, riverbank erosion, salinity, environmental degradation, nature and biodiversity conservation, pollution control, land subsidence, IWT, food security and nutrition and other climate change induced and Delta related challenges.	Quantitative	Cost of Delta Components DC between 91-100% of the total project = 10 DC between 81-90% of the total project = 8 DC between 71-80% of the total project = 6 DC between 60-70% of the total project = 4 The project will not be considered as Delta related project, if the cost of the Delta component of the project is less than 60% of the total estimated cost.
6	**Cost of Climate Change Component (CC)**	Cost of climate change component is defined as incremental cost/damage and dis-benefits, translated into incremental adaptation measures required on top of business-as-usual development measures to adapt with the consequences under moderate climate change impacts in the medium term.	Quantitative	When cost of CC>30% of the total project, score= 3, cost of CC between 21-30% of the total project, score =2, cost of CC between 10-20% of the total project, score=1, cost of CC less than 10%, score=0.
7	**Alternative adaptive pathway**	Projection of climate change and socio-economic developments are highly uncertain. For preliminary assessment this needs to be explained through a diagram. Quantifiable indicators can be selected to measure the performance (or deviation of performance from the project condition). Alternative adaptive pathways shall be assessed based on the project interventions designed for 2050 with moderate climate change scenario. A set of alternative measures designed for extreme climate change scenario in the mid-term (2050) and long-term (2100) shall be considered here as	Qualitatively	When the deviation in selected SIs and DSIs (most relevant one SI or DSI) due to proposed project interventions (designed for 2050 and moderate climate change scenario, SSP2) and the alternate pathways for mid-term (up to 2050) under high climate change scenario, SSP5 is <5% then, score=6; if deviation ranges from 5-10%, score=4 and if deviation ranges from 11-15%, score=2. Score 1 for an additional SI or DSI if the deviation is less than 15%. Consider a maximum of 3 SI or DSI

Sl. No.	Criteria for Project Appraisal	Descriptions and Guidelines		Scoring Methods
		alternative adaptive pathways. Alternative measures are required to control the deterioration of the performance of the system to an acceptable limit. Alternative measures should be aligned with BDP2100 strategies/ sub-strategies listed in each hot spot and assessed in terms of decision support indicators representing objectives. In other words, the robustness of the alternatives in the mid-term and long-term time horizon with extreme climate change may be assessed during feasibility for this purpose. Note 1: This Criteria would be scored using estimated decision support indicators.		with maximum score of 8. When the deviation in selected SIs and DSIs (most relevant one SI or DSI) due to proposed project interventions (designed for 2050 and moderate climate change scenario) and the alternate pathways for long-term (up to 2100) under high climate change scenario is <10% then, score=6; if deviation ranges from 11-20%, score=4 and if deviation ranges from 21-30%, score=2. Score 1 for an additional SI or DSI if the deviation is less than 30%. Consider a maximum of 3 SI or DSI with maximum score of 8.
8	**Robustness**	The change in selected SIs and DSIs that measure system performance under different scenarios in the medium term shall be used to measure robustness. Assessment of the performance (selected SIs and DSIs) of proposed measures (designed for 2050 with moderate climate change scenario-SSP2) under extreme climate change scenario-SSP5 in 2050 is recommended to measure the robustness. easy	Quantitatively	Score highly robust = 6, moderately robust = 4 and low robust = 2, when deviation of selected SIs and DSIs (most relevant one SI or DSI) under extreme climate change scenario up to 2050 is less than 10%, ranges from 10-20%, and 21-30% respectively. Score 2 for an additional SI or DSI if the deviation is less than 30%. Consider a maximum of 3 SI or DSI with maximum score of 10.
9	**Flexibility and Scalability**	It is proposed to measure flexibility of a project based on its flexibility to adjust its implementation to adapt to new or unforeseen developments and insights (including in climate impact scenario's), to prevent disinvestment and to assure that proposed investment are 'no-regret' and cost of the project is optimal. I.e. it is not regretted when alternative measures need to be pursued under higher climate impact scenarios.	Quantitative	The potential for required changes of the project after implementation, and the potential for future scaling / replication lead to a minimum investment need (20-30%) , score 3; moderate investment need (31-40%) , score 2; and high investment need (41-50%) , score 1. Cost is recommended to be

Sl. No.	Criteria for Project Appraisal	Descriptions and Guidelines		Scoring Methods
		Furthermore the potential of a project for scaling-up with low to medium cost involvement in future, as climate change or other conditions require upscaling i.e. how eay is it to increase the crest height of a dike or to increase the length of a dike. Feasibility should compare project cost (cost of key measures) between moderate climate change scenario (proposed project interventions) and high climate change scenario in 2050. Feasibility study would be required as regard to "no-regret" level of investment and scalability.		compared for key structural components.
C. Criteria for Cross Sectoral Integration, Cost/Benefit and Others				
10	**Cross sectoral integration, and non-structural integration: integrated land use plan**	Aligning with the potential and opportunities to contribute to the objectives of any other sector, including for instance: • Groundwater (GW) and surface water (SW) conjunctive use for water security. • Wetland for open water fisheries decreased or intercepted. • Waterways and river connectivity during lean period intercepted. • Interventions are integrated with spatial planning for now and future (hotspots for spatial planning required need to be defined) • Agriculture and fisheries • Improving livelihoods. • Enhancing environment, biodiversity and ecosystems. • Enabling socio-economic and urban development. • Transport and logistic corridor development. • Safely managed drinking water sources and sanitation facilities. • Engagement of local communities in cross-sectoral development interventions and their O&M. Et cetera (any other cross-sectoral	Quantitatively/qualitatively	For conjunctive of GW and SW, score 3 when groundwater use is 40-50%; score 2; when GW use is between 50-60%; and score 1 when GW use is >60% of total demand. The proportion of GW /SW needs to be adjusted depending on potential GW and SW availability and increase in demand. For fisheries, score 3, if: benefit (reduction in water level <5%) is high; score 2 if benefit (5-10% reduction in water level) is medium; score 1 when benefit low (>10 % reduction in water level). When project don't intervene any khal and river system score 3; when intervention is essential, but mitigation measure considered, score 2; and when there is intervention but no mitigation measure,

Sl. No.	Criteria for Project Appraisal	Descriptions and Guidelines		Scoring Methods
		interest relevant may be considered) Furthermore, the project should also include and align non-structural interventions which are vital for successful project implementation.		score 1. Score 3 when integration with spatial planning (if exist) is considered, and score 0 when not considered. The score will be negative in the same order when there is a dis-benefit or decrease when benefit and increase is expected. The score, however, may be influenced by specialist judgment. Consider maximum 3 sector with maximum score of 9.
11	**Contribution to Climate Mitigation/Adaptation**	Any project interventions which can either reduce emissions of greenhouse gases or remove those gases from the atmosphere can be treated as climate mitigation actions. Climate mitigation measures can be related to the 1) Sustainable energy and sustainable transport 2) Energy conservation, including efficient energy use 3) Sustainable agriculture and green industrial policy and 4) Enhancing carbon sinks and carbon dioxide removal, including carbon sequestration.	Qualitatively	If project interventions have positive impact on climate mitigation/adaptation, score 3, if the interventions do not have any positive impact on climate mitigation/adaptation, score 0.
12	**Contribution to Environment, Ecosystem and Biodiversity Restoration and Conservation**	Any project interventions which can contribute directly or indirectly to enhancing environment and ecosystem, restoration and conservation of biodiversity can be considered and the impact can be assessed qualitatively.	Qualitatively	If project interventions have certain positive impact on Environment, Ecosystem and Biodiversity Restoration and Conservation, score 3. If the interventions may have positive impact, score 2. If the interventions do not have any impact, score 1. If the interventions may have negative impact, score 0.
13	**Impact on Livelihood and Income**	Connecting proposed mid-term strategies (up to 2050) the economic growth (e.g. food and water supply) and its distribution among the poor will be scored based on answering the following: % of crop[3] production target met % of poor and disadvantaged group to be additionally covered with water supply	Quantitatively /Qualitatively	**Food/ Irrigation:** Score: 3 for positive change >10% in meeting food demand; score 2 for positive change meeting demand by 5-10%; score 1 for positive change in meeting demand between 1-5%. **Drainage:** Score: 3 for positive change >30% in

Sl. No.	Criteria for Project Appraisal	Descriptions and Guidelines		Scoring Methods
		% of areas with drainage facilities inhibited by poor. % of area irrigation covered by most deserving A maximum of three (3) indicators relevant to the proposed project type should be considered. Any other cross-sectoral/ non-structural strategies augmenting BDP2100 objectives can be used if the above are not relevant. The assessment of the indicators should be based on the estimation of SIs and DSIs during feasibility and decision made involving specialist judgment. Note 1: two of the three impacts may be assessed and scored quantitatively based on feasibility report. Note 2: one of the three impacts may be assessed and scored based on specialist judgement. Note 3: depending on the types of projects, crop means cereal, fisheries, livestock.		meeting drainage demand; score 2 for positive change meeting demand by 20-30%; score 1 for positive change in meeting demand by 10-19%. Use negative score when change is negative i.e. food production is less than the estimated gap. **Water supply:** Score 3 when water supply reach 100% among the poor population; score 2 when water supply cover is between 90-100; score 1, when water supply coverage is in between 80-90%. Consider a maximum of 3 indicator with maximum score of 9. Use negative score when water supply coverage further reduced by @10% (e.g score -1, when water supply cover is 70-80% and so on)
14	**Benefit-Cost Ratio (BCR)**	For Benefit-Cost analysis of an adaptation project, benefits can be defined as avoided damage costs of climate change, whereas costs are related to the actual investments in implementing the adaptation action. The benefit foregone if adaptation is not implemented should be measurable items like crop, livestock, damage to household things etc.	Quantitatively	
i	Economic			Score 3 When benefit-cost ratio is >1.3; score 2, when benefit-cost ratio is between 1.1 - 1.3 and score 1 when benefits is between 1.0 – 1.1
ii	Financial			Score 1 if the BCR more than 1.

[Note: Threshold values adopted here for scoring may be subjected to alteration at different physical and hydrological conditions]

Multi-criteria with method of scoring for Delta related project selection

The following criteria will be considered for selection of Delta related projects. Scoring guideline as mentioned in **Table 2** for project appraisal will also be applicable for the below mentioned criteria (except project readiness criteria) for project selection.

A. Criteria Related to BDP/Sectoral Policy/Plan/SDGs Alignment

1 Project Objective alignments with BDP2100 Goals and Strategy

i) BDP2100 goals

ii) Strategy and sub-strategies of BDP2100

2 Alignment with concerned sectoral goals and objectives.

3 Alignment with Sustainable Development Goals (SDG) those are linked to achievement of BDP2100 objectives

B. Criteria for ADM principles

4 Climate vulnerability and risk

5 Cost of Delta Component (DC)

C. Criteria for Cross Sectoral Integration, Cost/Benefit and Others

6 Cross sectoral integration/ non-structural integration: integrated land use plan

7 Project Readiness

Project readiness can be assessed based on the status of feasibility study and DPP. If any of the document is ready, the project can be treated as ready, otherwise not ready. Score '1' if the project is ready and score '0' if the project is not ready.

Annex-D: Feasibility Study Format

Feasibility Study Format

Section 1: Basic Information			
1.	Name of the Project	:	
2.	a) Sponsoring Ministry/Division b) Implementing Agency	: :	
3.	Project Objectives and Targets (Project to be taken based on the study)	:	
4.	a) Estimated Project Cost (Taka in Crore) b) Estimated cost for Delta component (Taka in Crore) c) Estimated cost for Climate component (Taka in Crore)	: : :	
5.	Sector & Sub-Sector	:	
6.	Project Category (Based on Environment Conservation Rules 1997)	:	
7.	Project Geographic Location (GIS map with geo-referencing to be attached) (a) Countrywide (b) Division (c) District (d) Upazila (e) Hotspot and hydrological region (f) Others (City Corporation/Pourashva)		
8.	Project Duration	:	

Section 2: Introduction

Describe the following:

a) Project Background: Rationale and genesis (Mention the sources of information through reviewing the relevant documents);
The project rationale needs to cover recent most hazards concerning risk and vulnerability to climate change. Also state the present and future socio-economic situation referring to the risk and vulnerabilities to climate change.
b) Objectives of the feasibility study
c) Approach and methodology of the feasibility study.
Also describe the approach and methods addressing climate change and referring the sources of data and information.
d) Organization of the feasibility study.

Section 3: Market/Demand Analysis
This section assesses the need for public investments and involves the elements listed below:

(a) Problem Statement: Provide an explicit definition of the problem to be addressed, identify the likely causes (both direct and indirect) of the problem and give a brief insight of the likely consequences if no intervention in public sector is made.

Also discuss the BDP2100 related issues and challenges of project area with relevant stakeholders, concerning trends of problem being faced currently and perception of the problem in relation to climate change and related bio-physical changes.

Describe damage done by previous natural hazards and the measures implemented (with reference).

(b) **Relevance of the Project Idea:** Justify the need for the proposed project by linking the project(s) goals, outcomes and outputs to Global/National Development Plans/ Policies and Sector Strategic objectives.

Align project's goal, objectives, output and expected outcome in relation to relevant Goal, Strategies of Bangladesh Delta Plan 2100 to be flagged as "Delta related Project".

(c) **Proposed Project Interventions:** Describe the interventions (project inputs & outputs) that need to be undertaken by the government through the proposed project to address the problem, describe the interventions undertaken earlier to solve this problem by this organization or other organizations (if any).

- Discuss the pros and cons of earlier interventions and proposed interventions as output of the project.
- Produce evidence of similar measures undertaken with performance collected from local communications.

(d) **Cross Sectoral Integration:** Inclusion of interventions addressing the potential and opportunities to contribute to the objectives of any other sector, including for instance: spatial planning, conjunctive use of water, shrinking of wetland area, salinity increase and navigational draft reduction, agriculture and fisheries, improving livelihoods, enhancing environment, biodiversity and ecosystems, enabling socio-economic and urban development, et cetera (any other cross-sectoral interest relevant may be considered).

(e) **Non-structural Integration:** Inclusion of vital non-structural interventions which are vital for successful project implementation, such as community involvement campaigns, stakeholder involvement, spatial and sector planning and policies, capacity building, governance, institutional strengthening, et cetera (any other vital non-structural intervention may be considered).

(f) **Stakeholders:** Identify the key stakeholders that are likely to be associated with the project interventions.

- Mention how the water user association on sub-regional basis (as required by BDP2100) would be integrated and coordinated in the stakeholder association affairs.

(g) **Demand Analysis:** Identify the need for public investments by assessing:

(i) Current demand (based on statistics provided by service providers/regulators/ministries/national & regional statistical offices for the various types of users);
(ii) Future demand (based on reliable demand forecasting models) in both the scenarios with and without the project; and
(iii) Various constraints to meet the demand including government regulations, technological developments etc.
(iv) Forecasting model for projected demand concerning climate change scenarios in different time horizon with/without project required to be used
(v) Discuss weak regulatory enforcement, unauthorized occupation, obstruction or modifying land and water regime without plan and authority. to meeting future demand and sustainability (as per BDP2100).

(b) **SWOT Analysis:** Identify the Strengths, Weaknesses, Opportunities and Threats to the project.

Section 4: Technical/Technological & Engineering analysis

A summary of the proposed project shall be presented with the following headings:

(a) Location: description of the location of the project including a geographical illustration with justification. Availability of land is a key aspect; evidence should be provided that the land is owned (or can be accessed) by the organization which has the full title to use it or has to be purchased (or rented) through acquisition/requisition process. Identify the issues of disaster risks in the proposed location including project site on hazard map. Insert digital map and with geo-referencing.

(b) Technical design: description of the main components, technology adopted, design, standards and specifications. Key output indicators should be defined as the key physical quantities produced (e.g., meters, sq. meters, kilometers, numbers, man-months, etc.), should be provided. If the project is in disaster prone areas and has the probability of climate change impact, disaster and climate change risks related information should be integrated in technical design to address the impact of hazards on the project.

(c) Output plan: description of the output and the expected utilization rate. These elements describe the service provision from the supply side in the context of the forecasted demand.

(d) Costs estimates: estimation of the financial needs for project design, implementation and operations, component wise cost estimates should be provided based on evidence.

(e) Implementation timeline: considering the volume of works, capacity of implementing agency, budget flow (MTBF ceiling), project priority etc. a realistic project timeline along with the implementation schedule should be provided, (for example, a Gantt Chart with the work plan).

Section 5: Environmental Sustainability, Climate Resilience and Disaster Risk Analysis

5.1 Environmental, Climate Change and Disaster Risk Analysis

Specify and describe the economic effects/impacts of environmental, disaster and climate change and possible compensations for ecological damages. Key issues to be addressed:

a. What are the likely environmental, disaster and climate change impacts or risks from the project (any impact of project to increase the existing disaster and climate change related risks and/or contribute to create new risks)?
b. What counter measures should be taken to reduce these impacts?
c. What is the cost for reducing/mitigating the negative impacts?
d. Are there alternative ways of delivering the required services or goods without incurring these environmental costs? What are the costs of these alternatives?
e. What types of assessments are required for the project (e.g. EIA/DIA)?
f. Is there any resettlements issue to be addressed? If yes, provide resettlement modality in details.
g. Select SIs and DSIs
h. Quantify the impact of climate change in relation to base condition.
i. Quantify the impact of project intervention on environment.
j. What are the alternative adaptive pathways?
k. Alternative adaptive pathways need to be assessed based on the project interventions designed for 2050 with moderate climate change scenario. A set of alternative measures designed for extreme climate change scenario in the mid-term (2050) and long term (2100) need to be considered here as alternative adaptive pathways.
l. Is the project robust to extreme climate conditions?
Assessment of the performance (selected SIs and DSIs) of proposed measures (designed for 2050 with moderate climate change scenario) under extreme climate change scenario in 2050 is recommended to measure the robustness.
m. Is the project flexible to accommodate changes?
Flexibility is treated as a measure of scalability as 'no-regret' has potential for replication in general in other areas. Feasibility should compare project cost (cost of key measures) between moderate climate change scenario (proposed project interventions) and extreme climate change scenario (alternate pathways) in 2050.

5.2 Assessment of Disaster Resilience of the Project

This section assesses the resilience and address about uncertainties. Key indicators need to be discussed:

a. Contingency Plan for Emergency Disaster Management: Describe the evacuation plan if required, institutional arrangement for shutting down of utility services, and general procedures to be followed by individuals during disasters (Fire, Earthquake, Flood, Cyclone etc.);
b. Business Continuity Plan: Outline the key response and recovery priorities. This plan will detail out how different utility services will be rendered to support the overall Emergency Management Plan;
c. Time of Recovery: Required time for rehabilitation after a disaster; and
d. Reporting of residual risks: Reporting of remaining risks after recognition and put in place adequate risk reduction measures

Section 6: Cost-Benefit Analysis

6.1 Financial Analysis

Describe the components of costs and benefits at market prices including option analysis.

(a) Identify the components of cost & benefit;
(b) Transfer them in monetary value;
(c) Construct cash flow;
(d) Identify the Key Assumptions considered in exercises; then
(e) Compute the following indicators and interpret the results:
    (i) Financial Net Present Value (FNPV)
    (ii) Financial Benefit Cost Ratio (FBCR)
    (iii) Financial Internal Rate of Return (FIRR)

6.2 Economic Analysis

Economic adjustments from financial data using standard conversion factor; after that costs and benefits are appraised from the point of view of the entire economy.

(a) Identify the direct, indirect and associated cost and benefit components.
(b) Adjust them where necessary.
(c) Convert the value of cost and benefit components into economic price by using Standard Conversion Factor (SCF) determined by the Government.
(d) Construct the cash flow.
(e) Mention the Assumption.
(f) Compute the following indicators and interpret the results:
    (i) Economic Net Present Value (ENPV)
    (ii) Economic Benefit Cost Ratio (EBCR)
    (iii) Economic Internal Rate of Return (EIRR)

Assess relevant cost of damages due to climate change using available damage function.

Section 7: Human Resources and Administrative Support Analysis

(During Implementation and Post Implementation of the project)

Point out the functional structure and institutional capacity of the Agency (in terms of both Technical & Financial) required for implementation and operational stages of the project(s), sources of the workforce & financing are needed to be identified. Key issues to be addressed:

(a) What types of managerial and skilled workforces are needed during implementation and operational phases of the project?
(b) Does the project entity have ability to provide the managerial and skilled workforces needed for implementation of the project? If not, provide suggestions specifically.

(c) Does the implementing agency have institutional capacity (financial & technical) to retain the project output functional? If not, provide specific suggestions.
(d) Is the project entity equipped with skilled & experienced workforces to operate the project output? If not, provide specific suggestions.
(e) Does the entity have adequate fund under its recurring budget to incur the operational expenditure of the project output? If not, provide specific suggestions.
(f) Is timing of project consistent with organizational capacity (in terms of quantity and other)? A comparative statement should be provided in light of experience of the entity in project implementation

Section 8: Institutional and Legal Analysis

Illustrate the legal restrictions (if any) that may obstruct or impede the project during its implementation and functional stage of the project outputs, key issues are:

(a) Does the project match with the legal boundary (allocate of business or mandate) of the project entity?
(b) (b) Are the capabilities and facilities being properly utilized?
(c) Is there any need for adjustment (reforms) in the policy and/or institutional setup?
(d) What adjustments may be required before the project is implemented?
(e) Do the institutions have suitable skills and capacity in line with the project requirements?
(f) Are there incentives or penalties in place to ensure the project delivery on time and within the budget?
(g) Are there any critical governance issues that may affect implementation? If yes, state briefly.
(h) Are any challenges related to cross-cutting issues to be addressed? If yes, a mitigation strategy would be suggested.
(i) Others (if any)

Section 9: Risk (Uncertainty) and Sensitivity Analysis

The flow of costs and benefits throughout the project life is uncertain. Given that uncertainty, considerations must be given to the costs that risks imply. The objective of this module is to simulate various scenarios and generate guidance on how to reduce the risk exposure through relevant contractual clauses. The questions that need to be answered are:

(a) What are the major risks that may affect project?
(b) How will the project be affected if the risk event materialized?
(c) What are the possible mitigation measures needed?
(d) How sensitive are the assumptions used in the financial and economic models in an environment that differs significantly?
(e) Are there any risks, legal and regulatory obligations that could increase costs or decrease the benefits? If there any, how much project implementation may be hampered or benefit of the project may be reduced?

Section 10: Alternative/Options Analysis

Option Analysis with recommendations & justifications. Technology and strategy recommended to achieve the goals and objectives of the proposed project should be described along with advantages and disadvantages considering various technologies and strategies applicable.

Section 11: Recommendation and Conclusion (with specific recommendation foe BDP 2100 inclusion)

Illustrate the solutions specifically to overcome the critical issues that may hinder the project implementation and that would be supported by different sections of analysis.

Section 12: Annexes

Attach detailed technical and engineering designs, plant prototypes design etc. Financial & Economic models and any supporting documents.

Section 13: Specific linkage with (i) Bangladesh Delta Plan 2100, (ii) Perspective Plan 2021-2041, (iii) Five Year Plan, (iv) SDG targets and (v) Ministry/Sector Priority

Also describe the following potentials/effects of the project

- Paradigm shift potential
- Potential to catalyze impact beyond a one-off project and scaling up ideas and knowledge development
- Expected reduction in vulnerability by enhancing the adaptive capacity of a system and reduced exposure to climate risk
- Sustainable development potential: Wider benefits and priorities, including environmental, social, and economic co-benefit

Annex-E: Development Project Proposal (DPP) Format

(For BDP 2100 related Project only)

Development Project Proposal (DPP)

PART-A

Project Summary

1.	Project Title	:
2.1	Sponsoring Ministry/Division	:
2.2	Implementing Agency (ies)	:
2.3	Concerned Division of Planning Commission	:
3.	Objectives and Targets (of Beneficiaries) of the Project (Please specify in quantity and/or in percentage and write in bullet form)	:
4.	Project Implementation Period	
	(i) Date of Commencement	:
	(ii) Date of Completion	:
5.1	Estimated Cost of the Project (Taka in lac)	
	Total	:
	GOB (JDCF/DRGA-CF or any other Debt Cancellation)	:
	Project Aid (PA)	:
	Own Fund	:
	Others	:
5.2	Exchange Rate(s) with Date (Source: Bangladesh Bank)	:
6.	Mode of Financing	
6.1	Mode of Financing with Source	

(Taka in Lac)

Source Mode	GOB (FE)	PA (RPA)	Own Fund (FE)	Others (Specify)	PA Source
(1)	(2)	(3)	(4)	(5)	(6)
Investment					
Loan/Credit					
Equity					
Grant					
Others (Specify)					
Total					

6.2 Year wise Estimated Cost:

Financial Year	GOB (FE)	Project Aid (PA)		Own Fund (FE)	Others (Specify)	Total
		Reimbursable PA(RPA)	Direct PA (DPA)			
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(2)+(3)+(4)+(5)+(6)
Total						

6.3 Financing Plan of the proposed project considering MTBF ceiling and allocation required for ongoing projects in ADP: Annex VII

7. Location of the Project

7.1 Location of the Project: (according to administrative unit)

Sl. No.	Division	District	City Corporation/Pouroshova/ Upazila
(1)	(2)	(3)	(4)

(Attach map, where necessary)

7.2 Location of the Project: (according to hydrological region and BDP2100 hotspots) (For Delta Projects only) (Regarding hydrological region-needs clarification/discussion)

Sl. No.	Hydrological region	Hotspots
(1)	(2)	(3)

(Attach map based on hydrological regions/ hotspots or other planning unit)

7.3 Justification of selecting the project area:

8 Location wise Cost Breakdown: Annex I

9 Estimated Cost Summary (Taka in Lac):

9.1 Economic code wise cost

(In Lakh taka)

Economic Code	Economic code wise Item Description	Unit	Quantity	Total Cost*	GOB (FE)	Project Aid				Own Fund (FE)	Others	% of Total Project Cost
						RPA		DPA				
						Through GOB	Special Account*	Through PD	Through DP			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(a)												
(a)Revenue												
Sub Total (Revenue):												
(b)Capital												
Sub Total (Capital):												
Total Cost (Revenue & Capital)												
(c)Physical Contingency												
(d)Price Contingency												
Grand Total (a+b+c+d)												

9.2 Cost of the BDP2100 Components (% of total project cost)

(In Lakh taka)

Economic Code	Economic code wise Item Description	Unit	Quantity	Total Cost*	GOB (FE)	Project Aid				Own Fund (FE)	Others	% of Total Project Cost
						RPA		DPA				
						Through GOB	Special Account*	Through PD	Through DP			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Total												

10 Project Design and Monitoring Framework

10.1 Logical Framework

I. Planned date of project commencement:
II. Planned date of project completion:

Narrative Summary	Objectively Verifiable Indicators (OVI)	Means of Verifications (MOV)	Important Assumptions (IA)
Goal			
Objective/ Purpose			
Output			
Input			

10.2 Criteria for Delta Appraisal Framework (DAF)*

Sl. No.	**Criteria**	**Status/Score**
A	**Criteria Related to BDP/Sectoral Policy/Plan/SDGs Alignment**	
1	Project Objective alignments with BDP2100 Goals and Strategy	
i	*BDP2100 Goals*	
ii	*Strategy and sub-strategies of BDP2100*	
2	Alignment with concerned sectoral goals and objectives	
3	Alignment with Sustainable Development Goals (SDG) those are linked to achievement of BDP2100 objectives	
B	**Criteria for ADM principles**	
4	Climate vulnerability and risk in the mid-term 2050	
	Moderate Climate Change Scenario	
	Extreme Climate Change Scenario	
5a	Cost of Delta Component (DC)	
5b	Cost of Climate Change Component (CC)	
6	Alternative Adaptive Pathway	
	for mid-term (2050) extreme climate change scenario	
	for long-term (2100) extreme climate change scenario	
7	Robustness	
8	Flexibility and Scalability	
C	**Criteria for Cross Sectoral Integration, Cost/Benefit and Others**	
9	Cross sectoral integration/ non-structural integration: integrated land use plan	
10	Contribution to Climate Mitigation	
11	Contribution to Environment, Ecosystem and Biodiversity Restoration and Conservation	
12	Livelihood and Income	
13	Benefit-Cost Ratio	
i	Economic	
ii	Financial	
Final Score		

*- quantifiable criteria should be valued based on feasibility study results
- put tick mark for non-quantifiable criteria

11. Project Management:

11.1 Proposed Project Management Setup (As per Annex-II)

11.2 Implementation Arrangement

12. Financial and Procurement Plan:
12.1 Procurement Plan [As per Annex -III(a), III(b) & III(c)]
12.2 Year wise Financial and Physical Target Plan (As per Annex-IV)

13. After completion, whether the output of the project needs to be transferred to the revenue budget:
13.1 If yes, briefly narrate the institutional arrangement and technical & financial requirement for operation and maintenance.
(To continue the benefits of the projects required yearly costs and personnel should be mentioned)
13.2 If not, briefly narrate the institutional arrangement and financial requirement for operation and maintenance.
(To continue the benefits of the projects required yearly costs and personnel should be mentioned)

Signature of the Officer(s) Responsible for the
Preparation of the DPP with Seal and Date

PART B
Project Details

14. Background Information:

14.1 Background with Problem Statement:

14.2 Linkages (to Other Projects & Institutions)

14.3 Poverty Situation

15. Project Description:

15.1 Objectives

15.2 Outcomes

15.3 Outputs

15.4 Activities

16. Population Statistics

16.1 Population Coverage

16.2 Population disaggregated data by women, senior citizens, children, physically & mentally challenged etc.

17. Whether any pre-appraisal/feasibility study/pre-investment study was done before formulation of this project? If so, attach a summary of findings & recommendations. (If not, mention the causes)

18. Financial & Economic Analysis, (Attach Calculation Sheet):

18.1 Net Present Value (NPV), considering 12% discount rate

(i) Financial

(ii) Economic

18.2 Benefit-Cost Ratio (BCR), considering 12% discount rate

(i) Financial

(ii) Economic

18.3 Internal Rate of Return (IRR)

(i) Financial

(ii) Economic

19. Lessons Learnt from Similar Nature of Project(s):

19.1 Indicate which issues lead to make project successful.

19.2 Indicate which issues did not work well.

20. Basis of Item wise Cost Estimate and Date:

Sl. No.	Major Items	Unit	Unit Cost	Basis	Source	Date
(1)	(2)	(3)	(4)	(5)	(6)	(7)

21. Comparative Cost of Major Items of Similar Other Projects:

Sl. No.	Major Items	Unit	Unit Cost of the Item (Taka in Lac)			Remarks
			Proposed Project	Similar Ongoing Project (*)	Similar Completed Project (**)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)

* Name of the similar ongoing projects

** Name of the similar completed projects

22. Detailed Annual Phasing of Cost (As per Annex –V(a) & V(b)

23. Technical Specification/Design of Major Items (To be attached)

24. Amortization Schedule for repayment of loan taken from Government (As per Annex -VI)

25. The cumulative effect/impact, adaptation and specific mitigation measures thereof, if any, on

25.1 other projects/existing installations

25.2 environmental sustainability like land, water, air, biodiversity, ecosystem services (If the project is 'Red Category' attach the EIA document

25.3a Disaster Risk Reduction, Climate Change and Adaptive Delta Management

25.3b Contribution to Climate Mitigation/Adaptation

25.4 gender, women, children, person with special needs, excluded groups etc.

25.5 employments

25.6 poverty situation

25.7 organizational arrangement/setup

25.8 institutional productivity

25.9 regional disparities

25.10 populations

26. Environmental Clearance:
26.1 Environmental impact wise project category (Red/Orange/Green)

26.2 Whether environmental clearance under the Environmental Conservation Act, 1995 (Revised 2010) has been obtained? (If yes, attach the certificate. If not, mention the cause)

26.3 Specify the integration with other sectoral interests.
27. Specific linkage with **(i)** Perspective Plan 2021-2041, (ii) Five Year Plan, (iii) SDG targets and (iv) Ministry/Sector Priority (Mention the pages with clauses of respective document/ attach the relevant pages of those documents)

It is required to establish a clear-cut linkage of the project with the BDP2100 vision, mission, goal, strategy, sub-strategy, and approach. Filling of the following table is also necessary:

Sl. No.	Issues	Response
1	Whether the project would contribute to achieving one or more goals of BDP2100.	If yes, explain how.
2	Mention the BDP2100 strategies and sub-strategies relevant with project activities.	
3	Briefly explain the ADM approach used in the project.	
4	Whether the project would contribute to achieving one or more sectoral objectives.	

Also describe the following potentials/effects of the project (Needs discussion/clarification)

- Paradigm shift potential
- Potential to catalyze impact beyond a one-off project and scaling up ideas and knowledge development
- Expected reduction in vulnerability by enhancing the adaptive capacity of a system and reduced exposure to climate risk
- Sustainable development potential: Wider benefits and priorities, including environmental, social, and economic co-benefit

28.1 Contribution of the Project in achieving the Vision, Mission of the Ministry/Division and Implementing Agency.

28.2 Alignment with the Allocation of Business of the Sponsoring Ministry/Division.

29. Whether private sector/local government or NGO's participation is considered?
(If yes, describe how they will be involved)

30. Major Terms and Conditions of Foreign Financing:

31. Involvement of Compensation, Rehabilitation/Resettlement issues (Indicate the magnitude and cost, if applicable:)

32. Risk Analysis and Mitigation Measures (Identify risks during implementation & operation):

33. Other Important Issues (Technical or others):

33.1 Sustainability of the Project Benefits with Exit Plan

34. Others, If any.

Signature of the Head of the Executing
Agency with Seal and Date

Signature of the Sr. Secretary/Secretary of the
Sponsoring Ministry/Division with Seal and Date

Annex-F: Revised Development Project Proposal (RDPP) Format

(For BDP 2100 related Project only)

Revised Development Project Proposal (RDPP)

1. Name of the Project :

2.1 Sponsoring Ministry/Division :

2.2 Implementing Agency :

2.3 Concerned Sector-Division of the Planning Commission :

3. Objectives and Targets (of Beneficiaries) of the Project :

4. Implementation Period of the Project:

Type of DPP	Commencement	Completion
Original		
* No cost extension		
Revised (1st)		
* No cost extension		
Revised (2nd)		

* If required

5.1 Estimated Cost of the Project:

Sources of Fund	Original Cost (Tk. In Lac)	1st Revised Cost (Tk. In Lac)	2nd Revised Cost (Tk. In Lac)	* Difference	
				In Lac Taka	%
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
Total					
GOB					
Project Aid					
Own Fund					
Others					

* Difference will be determined compared to latest approved cost.

5.2 Mode of Financing with Source (Latest Revision):

Source / Mode	GOB (FE)	Project Aid (PA) (RPA)	Own Fund	Others (Specify)	Source of PA
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
Investment					
Loan/Credit					
Equity					
Grant					
Others (Specify)					
Total					

5.3 Exchange Rate(s) with Date:
(Source: Bangladesh Bank)

6.1 Year wise Estimated Cost of the Project:

Financial Year	Revision of the Project	Estimated Cost						
		GOB	Project Aid (PA)			Own	Others	Total
			RPA		DPA			
			Through GOB	Special Account				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Revised (2nd)							
	* Inter component Adjusted							
	Revised (1st)							
	Original							
	Revised (2nd)							
	* Inter component Adjusted							
	Revised (1st)							
	Original							
	Revised (2nd)							
	* Inter component Adjusted							
	Revised (1st)							
	Original							
Total	Revised (2nd)							
	* Inter component Adjusted							
	Revised (1st)							
	Original							

* If required

6.2 Financing Plan of the proposed project considering MTBF ceiling and allocation required for ongoing projects in ADP: Annexure V

7.1 Location of the Project:

7.1 a According to Administrative Unit

Sl. No.	Division		District		City Corporation/Pouroshova/Upazila	
	Original	Revised	Original	Revised	Original	Revised
(1)	(2)	(3)	(4)	(5)	(6)	(7)

(Attach map, where necessary)

7.1 b According to Hydrological region and BDP 2100 Hotspots

Sl. No.	Hydrological Region		BDP 2100 Hotspots	
	Original	Revised	Original	Revised
(1)	(2)	(3)	(4)	(5)

(Attach map based on hydrological regions/BDP 2100 Hotspots/other planning unit)

7.2 Justification of selecting project area:

8.1 Economic Code-wise Comparison of Cost Summary Between the Original DPP and RDPP:

(Taka in Lac)

Eco. Code	co ub-code	Sub-Code wise compt. description	Latest Approved DPP									Proposed Revised DPP									Differences									
			Unit	Qty.	Cost							Unit	Qty	Cost							Unit	Qty	Cost						
					Total	GOB FE)	PA		DPA	Own Fund	Others			Total	GOB (FE)	PA		PA	Own Fund	Others			Total	GOB FE)	PA		DPA	Own Fund	Others
							RPA									RPA									RPA				
							Through GOB	SA								Through GOB	SA								Through GOB	SA			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)
(a) Revenue Component																													
Sub-total (Revenue Component)																													
(b) Capital Component																													
Sub-total (Capital Component)																													
(c) Physical Contingency																													
(d) Price Contingency																													
Grand Total (a+b+c+d)																													

8.2 Economic Code-wise Comparison of BDP 2100 related components Cost Summary between the Original DPP and RDPP:

(Taka in Lac)

Eco. Code	co ub-code	Sub-Code wise compt. description	Latest Approved DPP									Proposed Revised DPP									Differences									
			Unit	Qty.	Cost							Unit	Qty	Cost							Unit	Qty	Cost						
					Total	GOB FE)	PA		DPA	Own Fund	Others			Total	GOB (FE)	PA		PA	Own Fund	Others			Total	GOB FE)	PA		DPA	Own Fund	Others
							RPA									RPA									RPA				
							Through GOB	SA								Through GOB	SA								Through GOB	SA			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)
(a) Revenue Component																													

Sub-total (Revenue Component)																												
(b) Capital Component																												
Sub-total (Capital Component)																												
(c) Physical Contingency																												
(d) Price Contingency																												
Grand Total (a+b+c+d)																												

9.1 Item wise Cumulative Progress and Year wise Breakdown of Revised Quantity and Cost to be Incurred:

(Taka In Lac)

Eco. Code	co ub-code	Sub-Code wise compt. description	Cumulative Progress up to										To be Incurred													
													Financial Year - 1										Financial Year - 2			
			Init	uantity n detail)	Cost						Own Fund	Others	Init	uantity n detail)	Cost						Own Fund	Others	Init	uantity n detail)		
					Total	GOB FE)	PA								Total	GOB FE)	PA										
							RPA		DPA								RPA		PA								
							Through OB	SA	Through PD	Through DP							Through OB	SA	Through PD	Through DP							
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	---------		
(a) Revenue																											
Sub-total (Revenue)																											
(b) Capital																											
Sub-total (Capital)																											
(c) Physical Contingency																											
(d) Price Contingency																											
Grand Total (a+b+c+d)																											

9.2 Item wise Cumulative Progress and Year wise Breakdown of Revised Quantity and Cost of BDP 2100 related components to be Incurred:

(Taka In Lac)

Eco. Code	co ub-code	Sub-Code wise compt description	Cumulative Progress up to										To be Incurred												
													Financial Year - 1										Financial Year - 2		
			Init	uantity n detail)	Cost						Own Fund	Others	Init	uantity n detail)	Cost						Own Fund	Others	Init	uantity n detail)	
					Total	GOB FE)	PA								Total	GOB FE)	PA								
							RPA		DPA								RPA		PA						
							hrough OB	SA	Through PD	Through DP							hrough OB	SA	Through PD	Through DP					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	--------
(a) Revenue																									
Sub-total (Revenue)																									
(b) Capital																									
Sub-total (Capital)																									
(c) Physical Contingency																									
(d) Price Contingency																									
Grand Total (a+b+c+d)																									

10. Financial Analysis, *(Attach Calculation Sheet):*

10.1 Net Present Value (NPV), *considering 12% discount rate*

(i) Financial

(ii) Economic

10.2 Benefit-Cost Ratio (BCR), *considering 12% discount rate*

(i) Financial

(ii) Economic

10.3 Internal Rate of Return (IRR)

(i) Financial

(ii) Economic

11. Main Features of Revision with Justifications:

(i)

(ii)

12. Cumulative Expenditure and Physical Progress of the Project: Annexure II

13. Logical Frame of the project:

(i) Planned date of project commencement :

(ii) Planned date of project completion :

Narrative Summary (NS)	Objectively Variable Indicators (OVI)	Means of Verification (MOV)	Important Assumption (IA)
Program Goal			
Project Purpose			
Output			
Input			

14. Location wise Cost Breakdown: Not Applicable (Annexure I).

15. Procurement Plan: Shown in Annexure III(a), III(b) & III(c).

16. Year wise Financial and Physical Target Plan: Shown in Annexure II.

17. Original DPP & Latest Revised RDPP have to be attached.

Signature of the Head of the Executing Agency with Seal and Date

Signature of the Sr. Secretary/Secretary of the Sponsoring Ministry/Division with Seal and Date

Annexure I

Location wise Cost breakdown of the Project

Name of the Project :

Sponsoring Ministry/Division :

Implementing Agency :

(Figures Lac Taka)

Sl No.	Division	District	Upazila/Thana/City Corporation/Pouroshava	Major Items (Quantity)	Estimated Cost	Remarks
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*

Annexure II

Year wise Financial & Physical Target Plan

Name of the Project:

Sponsoring Ministry/Division:
Executing Agency:

Economic Code	Code Description	Total Physical & Financial target					FY			FY			FY			FY			FY		
		Unit	Unit Cost	Quantity	Total Cost	Weight	Financial (In Lac Tk)	Physical		Financial (In Lac Tk)	Physical		Financial (In Lac Tk)	Physical		Financial (In Lac Tk)	Physical		Financial (In Lac Tk)	Physical	
								% of Item	% of Project		% of Item	% of Project		% of Item	% of Project		% of Item	% of Project		% of Item	% of Project
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
(a) Revenue Component :																					
Sub-Total (Revenue):																					
(b) Capital Component:																					
Sub-Total (Capital):																					
Total (Revenue & Capital):																					
(c) Price Contingency:																					
(d) Physical Contingency:																					
Total (a + b + c + d):																					

Annexure III(a)

Total Procurement Plan for Development Project

Ministry/Division		
Agency		
Procuring Entity with Code		
Project/Program with Code		

Project Cost (In Lac Taka)

Total	
GOB	
FF	
Own Fund	

Package No.	Description of Package as per RDPP (Goods)	Unit	Quantity	Procurement Method & Type	Tender Approval Authority	Source of Funds	Est. Cost (Lac Taka)	Indicative Dates		
								Invitation of Tender	Signing of Contract	Completion of Contract
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(8)*	*(9)*	*(10)*	*(11)*
Total Cost of Goods										

Annexure III(b)

Total Procurement Plan for Development Project

Ministry/Division	
Agency	
Procuring Entity with Code	
Project/Program with Code	

Project Cost (In Lac Taka)

Total	
GOB	
FF	
Own Fund	

Package No.	Description of Package as per RDPP (Works)	Unit	Quantity	Procurement Method & Type	Tender Approval Authority	Source of Funds	Est. Cost (Lac Taka)	Indicative Dates			
								Invitation of Prequalification (If Required)	Invitation of Tender	Signing of Contract	Completion of Contract
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(8)*	*(9)*	*(10)*	*(11)*	*(12)*
Total Cost of Works											

Annexure III(C)

Total Procurement Plan for Development Project

Ministry/Division		
Agency		
Procuring Entity with Code		
Project/Program with Code		

Project Cost (In Lac Taka)	
Total	
GOB	
FF	
Own Fund	

Package No.	Description of Package as per DPP/TPPP (Services)	Unit	Quantity	Procurement Method & Type	Tender Approval Authority	Source of Funds	Est. Cost (Lac Taka)	Indicative Dates			
								Invitation of EOI	Issue of RFP	Signing of Contract	Completion of Contract
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(8)*	*(9)*	*(10)*	*(11)*	*(12)*
Total Cost of Services											

Annexure IV

Amortization Schedule

Name of the Project :
Executing Agency :
Sponsoring Ministry/Division :
Total Investment (In Lac taka) :
Amount of Loan (in Lac taka)
Loan Repayment Period (Years) :
Rate of Interest :

(Taka in Lac)

Year	Beginning Principal Amount	Yearly Fixed Amount to be Paid (Principal)	Yearly Interest to be Paid	Total Amount to be Paid (Principal + Interest)	Outstanding of Principal
(1)	*(2)*	*(3)*	*(4)*	*(5)=(3)+(4)*	*(6)=(2)-(3)*
Year 1					
Year 2					
Year 3					
Year 4					
Year 5					
Total					

Annexure V

Financing Plan of the proposed project considering MTBF ceiling and allocation required for ongoing projects in ADP

Name of the Project :

Sponsoring Ministry/Division :

Implementing Agency :

(Figures in LacTaka)

1.	Number of ongoing projects under sponsoring Ministry/Division	:			
2.	Estimated cost of the ongoing approved projects	:			
3.	Total Cumulative expenditures upto June of the previous Financial year	:			
4.	Allocation required for the ongoing projects [Subtract Row 3 from Row 2]	:			
5.	Allocation in ADP of current Financial Year	:			
			Current FY	Next 1st FY	Next 1st FY
6.	Projected resources for the Sponsoring Ministry/Division in 8th Five Year Plan (in present value)	:			
7.	Allocation & Projection for the sponsoring Ministry/Division in MTBF	:			
8.	Allocation required for the projects of the sponsoring Ministry/Division as per approved project documents (already included in ADP).	:			
9.	Number of projects already approved (yet not included in the ADP with allocation) & allocation required and the projects recommended by PEC (a) No. of approved projects (??) (b) No. of projects recommended by PEC (??)	: :			
10.	Allocation required for the proposed project	:			
11.	Total requirement of Allocation [Total of row 8,9 & 10]	:			
12.	Fiscal Space (Capacity) [Subtract Row 11 from Row 7]	:			

13. If Fiscal Space (Financing Capacity) is negative, mention the way of financing the proposed project

Annex-G: Manual for Preparation of Development Project Proposal (DPP)

(For BDP 2100 related Project only)

Manual of Delta Appraisal Framework (DAF) for Preparation of Development Project Proposal (DPP)

Government of Bangladesh has adopted Bangladesh Delta Plan (BDP) 2100 on 04 September 2018. The principles and strategies of BDP 2100 are needed to integrate into development planning system of Bangladesh for proper implementation of this mega plan. A new planning tool 'Delta Appraisal Framework (DAF)' has been prepared to mainstream Adaptive Delta Management (ADM) principles and other strategic requirement of BDP 2100 into development project planning and approval system of Bangladesh, particularly for BDP 2100 related projects. To fully utilize this DAF, some changes have been suggested in the existing DPP format and to align it with goals, principles, and strategies of BDP2100. This Manual provides guidelines to prepare the newly incorporated sections and a few existing relevant sections (where the heading of the section remains same, but the content can be prepared in different ways) of the proposed DPP format. These guidelines are depicted below according to corresponding sections of DPP.

Section of DPP format: 3 (existing section)

Title: Objectives and Targets (of Beneficiaries) of the Project (Please specify in quantity and/or in percentage and write in bullet form)

Guidelines

Objectives: The project objectives should be in line with the specific goals of the Bangladesh Delta Plan-2100. The specific objectives to be clearly mentioned in bullet form aligning with goals.

Targets: Targets against each specific objective should be set out, aligning with Five-Year Plan targets and sectoral targets (translated from BDP2100). Targets should be spelled out in quantity/number/percent.

Section of DPP format: 7.2 (newly proposed)

Title: Location of the Project: (according to hydrological region and BDP2100 hotspots)

Guidelines

Prepare GIS based map showing the location of proposed project/program in different hydrological regions and BDP2100 hotspots,

Section of DPP format: 7.3 (existing section)

Title: Justification of selecting the project area

Guidelines

Justification should among others relate to the present and future risk and vulnerabilities concerning climate change in the proposed location (flood, draught, freshwater scarcity, sediment management, riverbank erosion, salinity, etc.). It is also required to link the climate vulnerability and requirements of proposed measures to increase resilience under future projected climate change.

Prepare a list of hazards for the project area and show the project location in risk-hazard-vulnerability maps for moderate and extreme climate change scenarios in 2050 for different types of hazards. Discuss climate vulnerability and classify as high, moderate or low for both moderate and extreme climate change scenarios in 2050 (one hazard needs to be classified).

Section of DPP format: 9.2 (newly proposed)

Title: Cost of the BDP2100 Components (% of total project cost)

Guidelines

- Climate change component is the incremental cost of incremental adaptation measures required on top of business-as-usual development measures to adapt with the consequences under moderate climate change impacts in the medium term-up to 2050.
- Delta component (which also includes cost of climate component under moderate climate change up to 2050) is consisted of activities proposed to address the issues and challenges of flood, sea-level rise, cyclonic storm surge, water logging, draught, freshwater scarcity, sanitation, ground water depletion, land use change, land reclamation, sediment management, riverbank erosion, salinity, environmental degradation, nature and biodiversity conservation, pollution control, land subsidence, IWT, food security and nutrition and other climate change induced and Delta related challenges.
- Total cost of the project = Cost of (Delta component + non-Delta component)

Section of DPP format: 10.2 (newly proposed) (This section should be filled up after filling the other sections of the DPP)

Title: Criteria for Delta Appraisal Framework (DAF)

Guidelines

A-Criteria Related to BDP/Sectoral Policy/Plan/SDGs Alignment

1-Project Objective alignments with BDP2100 Goals and Strategy(ies)

i-BDP2100 Goals: See the response in the table under Section no. 27, sl. no. 1. Put the number of total BDP2100 specific goals aligned with project objectives.

ii- Strategy and sub-strategies of BDP2100: See the response in the table under Section no. 27, sl. no. 2. Put the number of total BDP2100 sub-strategies aligned with project activities.

2- Alignment with concerned sectoral goals and objectives: See the response in the table under section. 27, sl. no. 5. Put the number of total sectoral objectives aligned with project objectives.

3- Alignment with BDP2100 related Sustainable Development Goals (SDGs): Find the number of aligned SDGs in section no. 27, sl. no. iv. Put the total number of aligned SDGs here.

B-Criteria for ADM principles

4- Climate vulnerability and risk in the mid-term 2050: See the list of climate hazards for the project area and classification of vulnerability (for one hazard) both for moderate and extreme climate change scenario in 2050 in section no. 7.3 above and mention here.

5-Cost of Delta Component (DC): Compare the cost of Delta component with total project cost and mention the percentage of cost of Delta component to the total project cost (see section no. 9.2).

6-Cost of Climate Change Component (CC): Assess the incremental cost of the project due to climate change and compare it with the project cost (consider only the Delta component) without climate change. Mention the percentage of climate change component here (see section no. 9.2).

7- Alternative Adaptive Pathway: Mention the deviation (in percentage) of value of different indicators (maximum 3) from project condition to alternative adaptive pathway-1 (for extreme climate change scenario-2050) and alternative adaptive pathway-2 (for extreme climate change scenario-2100). See the values of different indicators in section 25.3a.

8- Robustness: Mention the deviation (in percentage) of value of different state and decision support indicators (maximum 3) from moderate climate change scenarios to extreme climate change scenario in medium term-2050. See the values of different indicators in section 25.3a.

9- Flexibility and Scalability: Mention the incremental cost in percentage due to implementation of alternative adaptive pathways-1 from the original project cost. See in section 25.3a

C- Criteria for Cross Sectoral Integration, Cost/Benefit and Others

10-Cross sectoral integration/ non-structural integration, integrated land use plan: Identify the interdependent sectors and select suitable indicators. Observe the indicators of different sectors and compare each other to assess the cross sectoral integration. See section 26.3.

11-Contribution to Climate Mitigation: See the description in section 25.3b about contribution to climate mitigation and mention here.

12-Contribution to Environment, Ecosystem and Biodiversity Restoration and Conservation: See the impact of the project on environment, ecosystem and biodiversity in section 25.2 and mention the impact whether it is positive or negative.

13-Livelihood and Income: See the impact of project on poor/disadvantaged groups in different aspects in section 26.3 and mention here.

14-Benefit-Cost Ratio: See economic and financial benefit cost ratio in section 18.2 and mention here.

Section of DPP format: 14.1 (existing section)

Title: Background with Problem Statement

Guidelines

Briefly narrate existing Delta challenges and provide problem statement in light of respective BDP Hotspot and cross cutting area.

Section of DPP format: 15.1 (existing section)

Title: Objectives

Guidelines

Define in terms of specific objectives with targets.

Section of DPP format: 15.2 (existing section)

Title: Outcomes

Guidelines

Define the outcome in relation to specific objectives in terms of state indicators (SIs) and decision support indicators (DSIs).

Section of DPP format: 25.3a (new items added to the existing section)

Title: Disaster Risk Reduction, Climate Change and Adaptive Delta Management

Guidelines

The risk and vulnerability of climate hazard and adaptive measures and pathways that are considered for medium term (up to 2050) and longer term (up to 2100) to be discussed here. Major principles of ADM including Alternative Adaptive Pathways, Robustness and Flexibility should be described.

Alternative adaptive pathways shall be assessed based on the project interventions designed for 2050 and moderate climate change scenario. A set of alternative measures designed for extreme climate change scenario in the mid-term (up to 2050) and long term (up to 2100) shall be considered here as alternative adaptive pathways. The effectiveness of alternative adaptation pathways can be assessed by observing selected SIs and DSIs under different scenarios. Consider three (03) indicators and assess the deviation (in percentage) of each indicator's value from project condition to alternative adaptation pathways planned for extreme climate change scenario in up to 2050. Again, consider three (03) indicators and assess the deviation (in percentage) of each indicator's value from project condition to alternative adaptation pathways planned for extreme climate change scenario in up to 2100.

Robustness can be measured by assessing the performance (selected SIs and DSIs) of proposed measures (designed up to 2050 with moderate climate change scenario) under extreme climate change scenario up to 2050. Consider three (03) indicators and assess the deviation (in percentage) of each indicator's value from moderate climate change scenario to extreme climate change scenario up to 2050.

Flexibility is treated as a measure of scalability as 'no-regret' has potential for replication in general in other areas. Feasibility study report should estimate project cost (cost of key measures) in moderate climate change scenario (proposed project interventions) and extreme climate change scenario (alternate pathways) in 2050. Assess the incremental cost for upscaling of the project from moderate climate change scenario to extreme climate change scenario and mention the incremental cost in percentage of original project cost here.

An example of assessing the value of different indicators and criteria of MCA of a drainage project in the coastal area is given below.

Example: State Indicators (SIs) and Decision Support Indicators (DSIs) of a Drainage Project in Coastal Area

SIs and DSIs		Unit	Moderate Climate Scenario (SSP 2)		Extreme Climate Scenario (SSP 5)		
			2050	2050	2050	2050	2100
			With project	Without project	With Project	Alt. Pathway 1	Alt. Pathway 2
SI	Flood Free Area (% of total area)	%	$SI_{1, 2050\ wp}$	$SI_{2, 2050\ wop}$	$SI_{5, 2050\ wp}$	$SI_{3, 2050}$ (Path 1)	$SI_{4, 2100}$ (Path 2)
SI	SW use during winter	Mm^3	$SI_{6, 2050\ wp}$	-	-	-	-
SI	GW use during winter	Mm^3	$SI_{7, 2050\ wp}$	-	-	-	-
SI	Water level at critical point & time	mMSL	$SI_{8, 2050\ wp}$	$SI_{9, 2050\ wop}$	-	-	-
DSI	Food production (rice/fish)	Mt	$DS1_{1, 2050\ wp}$	$DS1_{2, 2050\ wop}$	$DS1_{5, 2050\ wp}$	$DS1_{3, 2050}$ (path 1)	$DSI_{4, 2100}$ (Path 2)
DSI	Drainage facility to poor population	No. of poor population	$DSI_{6, 2050\ wp}$	$DSI_{7, 2050\ wop}$	-	-	-
DSI	Delta cost component	Taka	$DC_{1, 2050\ wp}$	-	-	$DC_{3, 2050}$ (Path-1)	-

Note: Suitable SIs and DSIs to be selected based on the nature of the project

Example: Evaluation of value/status of different criteria of MCA for a Drainage Project in Coastal Area		
Ref. No. of MCA	**Criteria**	**Evaluation of indicators (in %)**
7	**Alternative Adaptive Pathway**	
	for mid-term (up to 2050) extreme climate change scenario	
	Indicator-1: Flood Free Area (% of total area)	$\Delta SI_{1\text{-}3,\ 2050}$
	Indicator-2: Food production (rice/fish) in Metric Ton (Mt)	$(\Delta DSI_{1\text{-}3,\ 2050}/DS_{1,\ 2050}) \times 100$
	Indicator-3:	
	for long-term (up to 2100) extreme climate change scenario	
	Indicator-1: Flood Free Area (% of total area)	$\Delta SI_{1\text{-}4,\ 2100}$
	Indicator-2: Food production (rice/fish) in Mt	$(\Delta DSI_{1\text{-}4,\ 2050}/DS_{1,\ 2050}) \times 100$
	Indicator-3:	
8	**Robustness**	
	Indicator-1: Flood Free Area (% of total area)	$\Delta SI_{1\text{-}5,\ 2050}$
	Indicator-2: Food production (rice/fish) in Mt	$(\Delta DSI_{1\text{-}5,\ 2050}/DS_{1,\ 2050}) \times 100$
	Indicator-3:	
9	**Flexibility and Scalability**	$(\Delta DC_{1\text{-}3,\ 2050}/\ DC_{1,\ 2050}) \times 100$
10	**Cross-sectoral integration**	
	Groundwater use (%) in irrigation project	$[SI_{7,\ 2050}/(SI_{6,\ 2050}+SI_{7,\ 2050})] \times 100$
	Reduction in water level in stream for fish habitat	$(\Delta SI_{8\text{-}9,\ 2050}/\ SI_{8,\ 2050}) \times 100$
	Others	
13	**Livelihood and Income**	
	Food production (rice/fish) change	$[\Delta DSI_{1\text{-}2,\ 2050}/DSI_{2,\ 2050\ (wop)}] \times 100$
	Drainage facility to poor population	$[\Delta DSI_{6\text{-}7,\ 2050}/DSI_{7,\ 2050\ (wop)}] \times 100$
	Others	

Section of DPP format: 25.3b (newly proposed)

Title: Contribution to Climate Mitigation

Guidelines

Describe whether the project can contribute to reduce greenhouse gases emission, if yes, describe how and to what extent?

Any project interventions which can either reduce emissions of greenhouse gases or remove those gases from the atmosphere can be treated as climate mitigation actions.

Section of DPP format: 25.5 (existing section)

Title: Employments

Guidelines

Employment here is related to agriculture, income opportunities from other informal sectors, existing market value chain, transportation networking etc,

An effort should be made to correlate these in generating employment opportunities in the medium term. Employment generation due to project intervention may be quantified either in number or percentage.

Section of DPP format: 25.6 (existing section)

Title: Poverty situation

Guidelines

The poverty situation in the project area at present condition and result of project intervention are to be described. Baseline survey, if any, should collect information more precisely to identify population under poverty in spatial terms and impact of risk and vulnerability to be estimated under future scenarios and explained.

Section of DPP format: 26.3 (newly proposed)

Title: Specify the integration with other sectoral interests

Guidelines

Cross-sectoral integration, livelihood and income in terms of quantifiable indicators should be described here.

Cross Sectoral Integration can be assessed by observing the suitable indicators of interdependent sectors like alignment of a development plan with the spatial planning, conjunctive use of water in irrigation project, increase or decrease of wetland area, salinity increase, reduction of navigational draft or any other sector or issues (maximum 3 issues). For example, cross-sectoral integration of an irrigation project can be assessed by observing the percentage of groundwater use to the total water use in the project. See example in section 25.3a.

Livelihood and Income distribution among the poor will be scored based on answering the following:

- % of crop production target met
- % of poor and disadvantaged group to be additionally covered with water supply
- % of areas with drainage facilities inhibited by poor.
- % of area irrigated area covered by most deserving option

Any other/additional indicators can be used if the above are not found relevant and enough. A maximum of three (3) indicators relevant to the proposed project type should be considered. See example in section 25.3a.

Section of DPP format: 32 (existing section)

Title: Risk Analysis and Mitigation Measures (Identify risks during implementation & operation)

Guidelines

Identify also the risks posed by climate change and other Delta related challenges and explain the relevant adaptation and mitigation measures thereof.