গণপ্রজাতন্ত্রী বাংলাদেশ সরকার
পরিকল্পনা মন্ত্রণালয়
পরিকল্পনা বিভাগ
এনইসি-একনেক ও সমন্বয় অনুবিভাগ
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স্মারক নং-২০.০০.০০০০.৪০৪.০১৪.০৬১.২০২০(অংশ-২).২০৪

তারিখ: ১৪ পৌষ ১৪৩১ / ২৯ ডিসেম্বর ২০২৪

পরিপত্র

বিষয়: 'সরকারি খাতে উন্নয়ন প্রকল্প প্রণয়ন, প্রক্রিয়াকরণ, অনুমোদন ও সংশোধন নির্দেশিকা'তে 'পরিবহন ও যোগাযোগ' এবং 'পরিবেশ, জলবায়ু পরিবর্তন ও পানিসম্পদ' সেক্টরের গুরুত্বপূর্ণ অবকাঠামোগত প্রকল্প মূল্যায়নে জলবায়ু পরিবর্তনজনিত বিষয় অন্তর্ভুক্তি (Integrate climate considerations in the appraisal of major infrastructure projects in 'Transport & Communication' sector and 'Environment, Climate Change & Water Resources' sector)

সরকারি বিনিয়োগকে অধিকতর কার্যকর, টেকসই ও ফলপ্রসু করার নিমিত্ত গুরুত্বপূর্ণ অবকাঠামোগত বিনিয়োগ প্রকল্প মূল্যায়নে জলবায়ু পরিবর্তন সংশ্লিষ্ট বিষয়াদি অন্তর্ভুক্তির লক্ষ্যে পরিকল্পনা বিভাগ কর্তৃক ১২ জুন ২০২২ তারিখে ২০.০০.০০০০.৪০৪.১৪.০৬১.২০২০ (অংশ-১)/১৩৩ সংখ্যক স্মারকের মাধ্যমে জারিকৃত **"সরকারি খাতে উন্নয়ন প্রকল্প প্রণয়ন, প্রক্রিয়াকরণ, অনুমোদন ও সংশোধন নির্দেশিকা"** শীর্ষক পরিপত্রের ২১.৩ নং অনুচ্ছেদে নিম্নবর্ণিত উপ-অনুচ্ছেদ সংযুক্ত করা হলো:

২১.৩.খ১ বিনিয়োগ প্রকল্পের যাচাই ও মূল্যায়নের জন্য আর্থিক ও অর্থনৈতিক বিশ্লেষণে জলবায়ু পরিবর্তনজনিত প্রভাব বিবেচনাপূর্বক প্রকল্পের ব্যয় (Cost) নির্ধারণ ও সম্ভাব্য সুফল (Benefit) নিরূপণ করতে হবে।

২১.৩.খ২ বিনিয়োগ প্রকল্প গ্রহণের ফলে গ্রিন হাউজ গ্যাস (GHG) নি:সরণ হ্রাস/বৃদ্ধি অর্থাৎ জলবায়ু/পরিবেশের ওপর প্রভাব নিরূপণে **পরিশিষ্ট-ক** এর **টেবিল-১** এবং জলবায়ু পরিবর্তনের কারণে সৃষ্ট দুর্যোগের প্রভাব মোকাবেলায় প্রকল্পটি কতটুকু সহনশীল (Resillent) তা নির্ধারণে **টেবিল-২ ও টেবিল-৩ এর মানদন্ড** এবং তৎসংক্রান্ত নির্দেশনা অনুসরণপূর্বক গুণগত মূল্যায়ন করতে হবে।

২১.৩.খ৩ সেক্টর/সাব-সেক্টরভিত্তিক বিনিয়োগ প্রকল্প চিহ্নিতকরণের ক্ষেত্রে প্রাথমিক মূল্যায়নে **পরিশিষ্ট-খ** এ প্রদত্ত ছকসমূহ ব্যবহার করতে হবে।

২১.৩.খ৪ অনুচ্ছেদ ২১.৩.খ১, ২১.৩.খ২ ও ২১.৩.খ৩ এ বর্ণিত নির্দেশনা প্রাথমিকভাবে 'পরিবহন ও যোগাযোগ' এবং 'পরিবেশ, জলবায়ু পরিবর্তন ও পানিসম্পদ' সেক্টরের জন্য প্রযোজ্য হবে।

সংযুক্তি: পরিশিষ্ট-ক
পরিশিষ্ট-খ

ইকবাল আব্দুল্লাহ
সচিব
পরিকল্পনা বিভাগ

বিতরণ (জ্যেষ্ঠতার ভিত্তিতে নয়):

১. মন্ত্রিপরিষদ সচিব, মন্ত্রিপরিষদ বিভাগ, বাংলাদেশ সচিবালয়, ঢাকা।
২. প্রধান উপদেষ্টার মুখ্য সচিব, প্রধান উপদেষ্টার কার্যালয়, তেজগাঁও, ঢাকা।
৩. সিনিয়র সচিব/ সচিব (সকল), ...।
৪. সদস্য (সকল), ... বিভাগ, পরিকল্পনা কমিশন।

স্মারক নং-২০.০০.০০০০.৪০৪.০১৪.০৬১.২০২০(অংশ-২).২০৪

তারিখ: ১৪ পৌষ ১৪৩১ / ২৯ ডিসেম্বর ২০২৪

সদয় অবগতির জন্য অনুলিপি:

১. প্রধান উপদেষ্টার একান্ত সচিব-১, প্রধান উপদেষ্টার কার্যালয়, তেজগাঁও, ঢাকা।

২. মাননীয় পরিকল্পনা উপদেষ্টার একান্ত সচিব, পরিকল্পনা মন্ত্রণালয়, শেরেবাংলা নগর, ঢাকা।

৩. সচিবের একান্ত সচিব, পরিকল্পনা বিভাগ, শেরেবাংলা নগর, ঢাকা।

২৯/১২/২০২৪
(মোসা. জেসমীন আরা)
উপপ্রধান

Table 1: Indicative Points awarded due to effect on Green House Gas (GHG) emissions

Sl No.	Effect on climate	Points awarded
1	Highly positive (will reduce GHG emissions significantly)	3
2	Positive (will reduce GHG emissions moderately)	2
3	GHG neutral (no GHG emission or net zero GHG emission with mitigation measures taken)	1
4	Increased GHG emissions with mitigation measures (GHG emissions not fully compensated with mitigation measures taken)	0
5	Increased GHG emissions and no mitigation measures taken	-1

Table 2: Points assigned based on project resilience to Climate Change (CC) induced hazards

Sl No.	Level of resilience to the impact of the identified hazard	Points awarded
1	**Totally resilient.** Project can sustain major impacts without any damage or only minor damage, not affecting service capacity. Or the project is not subject to the risk.	3
2	**Resilient.** Project may support major impacts but would require some repairs.	2
3	**Slightly resilient.** Project may support minor impact but can be seriously affected by a major impact, requiring significant repairs.	1
4	**Not resilient.** Occurrence of the hazard would turn the project useless and require rebuilding.	0

Table 3: Specific criteria for appraising resilience of Transport & Communication Sector/Environment, Climate Change & Water Resources Sector project to Climate Change

Climate hazard	Criteria	Severely Damage (0)	Moderately Damage (0.50)	Slightly damage (0.75)	No damage (1.0)
1. Flooding	Is flooding likely to damage the infrastructure?				
	Is flooding damage to				

Climate hazard	Criteria	Severely Damage (0)	Moderately Damage (0.50)	Slightly damage (0.75)	No damage (1.0)
	other sectors (e.g. electricity supply, transportation/other structure) likely to affect the project?				
2. Drought	Is drought likely to impair infrastructure?				
	Is drought likely to increase evaporation of surface waters and reduce project outcome?				
3. Storms	Is a storm likely to damage water and sanitation infrastructure?				
	Is a storm likely to damage other sectors (e.g. electricity supply, transportation, others) and impair the project?				
4. Sea level rise	Is sea level rise likely to introduce salt water into drinking water supplies or damage water and sanitation infrastructure?				
	Is sea level likely to damage other sectors (e.g. electricity supply, transportation, others) and impair the project?				
5. Cyclone	Is cyclone likely to damage the infrastructure?				
	Is cyclone likely to damage other sectors (e.g. electricity supply, transportation, others) and impair the project?				
6.Salinity	Is salinity likely to damage the infrastructure?				
	Is salinity likely to damage other sectors (e.g. electricity supply, transportation, others) and impair the project?				
7. Erosion	Is erosion likely to damage the project infrastructure?				

Climate hazard	Criteria	Severely Damage (0)	Moderately Damage (0.50)	Slightly damage (0.75)	No damage (1.0)
	Is erosion likely to damage other sectors (e.g. electricity supply, transportation, others) and impair the project?				
8. Flash Flood	Is flash Flood likely to damage the project infrastructure?				
	Is flash Flood likely to damage other sectors (e.g., electricity supply, transportation, others) and impair the project?				
9. Landslide	Is landslide likely to damage the project infrastructure?				
	Is landslide likely to damage other sectors (e.g. electricity supply, transportation, others) and impair the project?				
10. Cyclone Surge	Is Cyclone surge likely to damage the project infrastructure?				
	Is Cyclone surge likely to damage other sectors (e.g. electricity supply, transportation) and impair the project?				
11. Extreme precipitation	Is extreme precipitation likely to damage the project infrastructure?				
	Is extreme precipitation likely to damage other sectors (e.g. electricity supply, transportation) and impair the project?				
12. Extreme Temperature	Is extreme temperature likely to damage the project infrastructure?				
	Is extreme temperature likely to damage other sectors (e.g. electricity supply, transportation) and impair the project?				
Total Points					
Average Points*3 (=Points to be used in prioritization table)					

প্রকল্পের গুণগত মূল্যায়নের জন্য টেবিল ১,২,৩ ব্যবহারের নির্দেশনা:

- টেবিল-১ এ প্রাপ্ত নম্বর (Effect on climate) প্রকল্প নির্বাচনের ক্ষেত্রে (Prioritization & Selection) ভূমিকা পালন করবে।
- Hazard গুলো প্রকল্প এলাকা/ নির্দিষ্ট অঞ্চল (National Adaption Plan এ বর্ণিত) অনুযায়ী (প্রযোজ্য ক্ষেত্রে) সুনির্দিষ্ট হবে।
- টেবিল-৩ এর প্রাপ্ত নম্বরের ভিত্তিতে টেবিল-২ এর র‍্যাংকিং নির্ধারিত হবে।
- টেবিল-৩ এ প্রতিটি Hazard এর জন্য ২টি প্রশ্ন আছে। প্রত্যেক প্রশ্নের জন্য সর্বোচ্চ মান ১। প্রশ্নের নির্ধারিত মানসমূহ: Severely Damage এর জন্য ০, Moderately Damage এর জন্য ০.৫০, Slightly Damage এর জন্য ০.৭৫, No Damage এর জন্য ১.০।

  *উদাহরণস্বরূপ: ধরা যাক, কোন একটি প্রকল্প এলাকার জন্য ৫টি Hazard প্রযোজ্য। সেক্ষেত্রে ৫টি Hazard এর জন্য ১০ নম্বর বিবেচিত হবে। ৫টি Hazard এর বিপরীতে গুণগত মূল্যায়নে ১০টি প্রশ্নের বিপরীতে Severely Damage- ২টি, Moderately Damage- ২টি, No Damage- ৬টি উত্তর পাওয়া যায়। নির্ধারিত মানসমূহ যোগ করলে মোট প্রাপ্ত নম্বর দাড়াঁবে (০*২+০.৫*২+ ১*৬)= ০৭ অর্থাৎ প্রাপ্ত গড় নম্বর হবে ৭/১০=০.৭০। প্রকল্পের Resilience ও Prioritization নির্ধারণের লক্ষ্যে মান হবে ০.৭০* ৩= ২.১ । এখন, প্রাপ্ত মান টেবিল-২ এর মানদন্ড এর সাথে তুলনা করলে প্রকল্পটি Resilient বলে বিবেচিত হবে।*
- টেবিল-৩ এর কোন একটি মানদন্ডে শূন্য (০) পেলে সে প্রকল্পকে প্রয়োজনীয় Adaptation measure গ্রহণ সাপেক্ষে পুনরায় মূল্যায়ন করতে হবে।
- টেবিল ১ এর স্কোর -১ (ঋণাত্বক এক) কিংবা টেবিল ২ এর স্কোর ০ (শূন্য) হলে জলবায়ু পরিবর্তনের প্রভাব বিবেচনায় প্রকল্পটি বিনিয়োগের জন্য বিবেচিত/গ্রহণযোগ্য হবে না।

Detailed framework of the sector specific criteria for CC hazard impacts. Tables below are presented to help **evaluators** assess CC hazard impacts on roads, railways, the water transport and air transport projects.

1. Transport and Communication Sector

A. Indicative Framework of Sector Specific Criteria on CC impacts on Road Transport Projects

Specific CC impact criteria for Road Transport Projects	Yes/No/Not Applicable
1. Is the project resilient to possible wind damage to roadway infrastructure; service disruption if winds leave trees or other debris on roads?	
2. Is the project resilient to exposure to salinity that can deteriorate / corrode roadway surfaces and base layers, culverts, or metal bridge components?	
3. Is the project resilient to erosion of unpaved roads or road bases that may cause road failure or reduce road stability?	
4. Is the project resilient to increased risk of land-/mudslides, which can damage roads and make them temporarily impassable?	
5. Is the project resilient to damage to bridge structures, increased scour and erosion of bridge foundations?	
6. Is the project resilient to increased weather-related traffic accidents; traffic disruption and congestion?	
7. Is the project resilient to inability to access or safely use roads (esp. unpaved roads) until flooding subsides and related cleanup and repairs are completed?	
8. Is the project resilient to drainage works overwhelmed, damage to tunnels and underpasses?	
9. Is the project resilient to deterioration of pavement and road foundations, increasing repair costs and decreasing service life of infrastructure?	
10. Is the project resilient to premature deterioration of asphalt through softening and traffic related rutting may disrupt traffic and increase maintenance cost?	
11. Is the project resilient to thermal expansion of bridge joints and degradation of bridge structural materials, causing potential traffic disruptions and increased maintenance cost?	
12. Is the project resilient to damage to roadway infrastructure or road closure due to safety risk and reduced visibility?	
13. Is the project resilient to reduced pavement integrity and possible cracking due to ground shrinking, subsidence?	

B. Indicative Framework of Sector Specific Criteria on CC Impacts on Railway Transport Projects

Specific CC impact criteria for Railway Transport Projects	Yes/No/Not Applicable
1. Is the project resilient to possible wind damage to railway infrastructure; service disruption if winds leave trees or other debris on roads?	
2. Is the project resilient to exposure to salinity salt spray can increase	

corrosion of tracks, electrical equipment, and metal bridge components?	
3. Is the project resilient increased erosion of track subgrade can wash away ballast and reduce track stability, increasing maintenance costs and potentially requiring speed restrictions?	
4. Is the project resilient to increased risk of land-/ mudslides, which can damage tracks and make them temporarily impassable?	
5. Is the project resilient to damage to electrical equipment and power outages may cause track circuit failures and other operational disruption, including to signaling systems, disrupting service?	
6. Is the project resilient to flood damage to underground transit systems, including subway stops, trains and tunnels, may disrupt transit service?	
7. Is the project resilient to flood damage to rail stations, rolling stock, and maintenance facilities?	
8. Is the project resilient to temporary loss of service until flooding subsides and related cleanup and repairs are completed?	
9. Is the project resilient to electrical signaling and communications systems to overheat and malfunction?	
10. Is the project resilient to overhead lines expanding and sagging, requiring lines to be shut down and potentially disrupting service?	
11. Is the project resilient to health and safety risks to passengers, transit operators, and maintenance personnel?	
12. Is the project resilient to increased energy usage and cost for cooling and/or refrigeration; AC units on trains may fail in extreme heat?	
13. Is the project resilient to thermal expansion of bridge joints, increasing safety risks, travel disruption, and maintenance costs?	
14. Is the project resilient to damage to railway infrastructure or service disruptions due to safety risk or reduced visibility?	
15. Is the project resilient to soil shrinkage that may cause earthworks failure and uneven rail settlement?	
16. Is the project resilient to increasing of frequency and intensity of lightning strikes leading to unpredictable failures in the signaling system?	

C. Indicative Framework of Sector Specific Criteria on CC impacts on Water Transport Projects

Specific impacts for Water Transport Projects	Yes/No/Not Applicable
1. Is the project resilient to potential damage to unreinforced warehouses and cranes; toppled shipping containers?	
2. Is the project resilient to difficulty for berthing ships and inability to operate cranes in high winds may cause congestion and shipping delays?	
3. Is the project resilient to operational and navigational challenges as sea-level rise changes relative height of ships?	
4. Is the project resilient to potential seawater ingress of drainage pipe outlet, impeding drainage and increasing flood risk?	
5. Is the project resilient to increased underscouring of pier foundations, breakwaters, and sea walls and deterioration of port infrastructure?	
6. Is the project resilient to more rapid siltation decreasing channel depth and increasing dredging requirements?	

7. Is the project resilient to disruption to goods handling and damage to stored goods may cause shipping delays, reputational damage, or contract liability?	
8. Is the project resilient to potential damage to and inability to access rail and truck yard infrastructure may disrupt freight supply chain?	
9. Is the project resilient to potential damage to port buildings/equipment or to stored goods, increasing maintenance costs?	
10. Is the project resilient to paved surfaces may deteriorating more quickly, causing potential operational disruptions and increased maintenance cost?	
11. Is the project resilient to increased stress on temperature-sensitive structures and equipment, including metal warehouses and cranes?	
12. Is the project resilient to increased energy costs for air conditioning and refrigeration?	
13. Is the project resilient to health and safety risks to port operators and maintenance personnel?	
14. Is the project resilient to ports on lakes and rivers decreasing water levels that may impact navigability and increase dredging requirements?	
15. Is the project resilient to less water available for port operations?	

D: Indicative Framework of Sector Specific Criteria on CC impacts on Air transport Projects:

Specific impacts for Air transport projects	Yes/No/Not Applicable
1. Is the project resilient to potential heat damage to runway surfaces or taxi ways?	
2. Is the project resilient to accommodate in increased severe weather events that led to run way closure or traffic delayed?	
3. Is the project resilient to increased underscouring of pier foundations, breakwaters, and sea walls and deterioration of airport infrastructure?	
4. Is the project resilient to disruption to goods handling and damage to stored goods may cause air delays, reputational damage, or contract liability?	
5. Is the project resilient to potential damage of airport to and inability to access rail, marine and truck yard infrastructure may disrupt whole supply chain?	
6. Is the project resilient to potential damage to airport buildings/equipment or to stored goods, increasing maintenance costs?	
7. Is the project resilient to paved surfaces may deteriorating more quickly, causing potential operational disruptions and increased maintenance cost?	
8. Is the project resilient to increased stress on temperature-sensitive structures and equipment, including metal warehouses and cranes or goods handling equipment?	
9. Is the project resilient to increased energy costs for air conditioning and refrigeration?	
10. Is the project resilient to health and safety risks to airport operators and maintenance personnel?	
11. Is the project resilient to less water available for airport operations?	
12. Is the project resilient to fog interfering which may distrupt with flight operations?	
13. Is the project resilient to changing sea-level rise and storm surges that could have impact on infrastructure?	
14. Is the project resilient to downgrading bio-diversity that could create route	

disruption and capacity or demand redistribution (geographical)?	
15. Is the project resilient to wind direction or greater magnitude of oscillations have impact upon on aircraft performance changes, hub operation disruption?	
16. Is the project resilient to changing or extreme precipitation events creating flood management and containment problems at airports?	
17. Is the project resilient to changing wind direction and temperature that may have impact on clear air turbulence ?	
18. Is the project resilient to climate changes that may cause bird populations shifting,in somecases causing increased bird strike risks and deepening safety hazards	
19. Is the project resilient to wind and temperature fluctuations or severity of extreme weather that may impact on runway length?	

2. Environment, Climate Change and Water Resources Sector

A. Specific criteria for Waste Water Treatment facility or Waste Management Projects

Specific criteria for Waste Water Treatment Facility or Waste Management Projects	Yes/No/Not Applicable
1. Is the project resilient to additional treatment requirements, higher treatment costs, greater stress on treatment infrastructure, higher maintenance costs due to reduced water quality and increased salinity as consequences of Climate Change?	
2. Is the project resilient to physical damage to treatment facilities; direct and indirect disruptions to operations (e.g. due to power outages) caused by sea-level rise, storm surge, erosion, scouring, sedimentation, increase in precipitation or increased frequency of extreme precipitation events?	
3. Is the project resilient to additional treatment requirements, higher treatment costs, greater stress on treatment infrastructure, higher maintenance costs caused by temperature increase or decreasing precipitation and drought?	
4. Is the project resilient to decreasing precipitation and drought causing more concentrated wastewater, and increasing treatment requirements and cost?	
5. Is the project resilient to increasing or decreasing of rain fall, sea-level rise or extreme temperature that may hamper/ damage Waste water treatment plant structure or functionality?	
6. Is the project resilient to saline water in collection and conveyance systems due to sea level rise or storms that could reduce capacity, increase risk of untreated sewage discharge, and degrade pipes?	
7. Is the project resilient to physical damage to sewerage due to increase in precipitation or increased frequency of extreme precipitation events?	
8. Is the project resilient to service disruption due to power outage caused by increased precipitation, storm events or increased frequency of extreme precipitation events?	
9. Is the project resilient to combined sewer overflow due to increase in precipitation or increased frequency of extreme precipitation events?	
10. Is the project resilient to increased ground movement due to decreasing	

precipitation and drought that may damage buried assets, increasing maintenance costs and potentially causing leaks and disrupting service?	
11. Is the project resilient to decreasing precipitation and drought that may cause great deposition of solids and increased incidence of blockages?	
12. Is the project resilient to sea-level rise and storm surge, and increase in precipitation or increased frequency of extreme precipitation events, rising water tables that could expose underground structures to ground movements and flotation, which could cause structural damage and inundation?	
13. Is the project resilient to sea-level rise and storm surge that may cause septic tanks and pit latrines to be flooded or filled with silt, solid waste which could cause structural damage?	
14. Is the project resilient to decreasing precipitation and drought that may cause reduced reliability of systems that depend on water; less water available for flushing and cleaning pit latrines and septic tanks, wastages?	

B. Specific criteria for Environmental Protection and Climate Change sub sector projects

Specific criteria for Environmental Protection and Climate Change projects	Yes/No/Not Applicable
1. Is the project resilient to climate change risk that may hamper environmental conservation and sustainable management of eco systems?	
2. Is the project resilient to climate change that undermine the regulatory of bio-diversity or natural resources management?	
3. Is the project resilient to climate change that may have impact on phenology or ecosystem relationship?	

***C.* Specific criteria for Water resources management with extraction, maintenance, hydrological (Dam/Embankment) and conveyance structures & Land protection related**

Specific criteria for Water resources management with extraction, maintenance, and hydrological structures (Dam/Embankment) & Land protection.	Yes/No/Not Applicable
1. Is the project resilient to sea-level rise causing flooding that may cause damage to conveyance structures or disrupt operations directly or indirectly?	
2. Is the project resilient to larger sediment loads that may result in more rapid sedimentation of storage reservoirs, caused by an increase in precipitation or increased frequency of extreme precipitation events?	
3. Is the project resilient to reduced water quality at the point of extraction caused by decreasing precipitation and drought?	
4. Is the project resilient to reduced reliability of supply and increased competition for limited supply due to temperature increase and decreasing precipitation and drought?	
5. Is the project resilient to diminished effectiveness of extraction and increased pumping costs due to decreasing precipitation and drought?	
6. Is the project resilient to river erosion increasing land loss that is resulting from climate change	

7. Is the project resilient to salinity problem that may be resulting from Sea Level as the aftermath of climate change?	
8. Is the project resilient to increased salinity at the point of extraction caused by decreasing fresh water flow and sea level rise?	
9. Is the project resilient to increased bank erosion, shifting of river flow path, bed scouring at the point of extraction?	
10. Is the project resilient to flash flood & monsoon flood that will be intensified in changing climate?	
11. Is the project resilient to the water logging situation that will be intensified due to increase rainfall and sea level rise in climate change condition?	
12. Is the water supply/irrigation project resilient to salinity intrusion for sea level rise & decrease upstream flow?	
13. Is the water supply/irrigation project resilient to groundwater depletion, which will be worsened by decreased rainfall in a climate change condition (Barind region)?	