RAPID ENVIRONMENTAL ASSESSMENT (REA) CHECKLIST

Instructions:

(i) The project team completes this checklist to support the environmental classification of a project. It is to be attached to the environmental categorization form and submitted to the Environment and Safeguards Division (RSES), for endorsement by Director, RSES and for approval by the Chief Compliance Officer.

(ii) This checklist focuses on environmental issues and concerns. To ensure that social dimensions are adequately considered, refer also to ADB's (a) checklists on involuntary resettlement and Indigenous Peoples; (b) poverty reduction handbook; (c) staff guide to consultation and participation; and (d) gender checklists.

(iii) Answer the questions assuming the "without mitigation" case. The purpose is to identify potential impacts. Use the "remarks" section to discuss any anticipated mitigation measures.

Country/Project Title:	Central Expressway Project (CEP) of Sri Lanka
Sub project:	Meerigama (37.1km) to Kurunegala (76.8km) section and Ambepussa link road (9.3km), stage II of Central Expressway Project
Sector Division:	Roads & Highways

Project Location:

Proposed Central Expressway (CE) has been planned to provide access to district capitals such as Gampaha, Kurunegala and Kandy through the expressway network. CE will take a north bound direction while starting at Kadawatha, from Outer Circular Highway and will end at Dambulla. CE branches off at Pothuhera and traverses to Galagedara in order to provide entree to Kandy.

For a convenient management and supervision, CEP has been sub-divided in to several segments as given below;

Stage I: Kadawatha – Meerigama
Stage II: Meerigama – Kurunegala and Ambepussa link road
Stage III: Pothuhera – Galagedara
Stage IV: Kurunegala – Dambulla

Stage II of the CEP will be financed by Asian Development Bank (ADB) therefore this Rapid Environmental Assessment (REA) Checklist is confined to the particular section of the CEP.

Stage II traverses through Western, Sabaragamuwa and North – Western Provinces of the country and specific administrative divisions to which the trace of the stage II falls are given in the table below.

Stage	Province	District	Divisional Secretariat (DS) Division
Stage II	Western	Gampaha	Meerigama
	North – Western	Kurunegala	Narammala, Weerambugedera, Mallawapitiya, Polgahawela, Alawwa and Kurunegala
	Sabaragamuwa	Kegalle	Warakapola

Location map of the proposed trace is attached in Appendix 1.

Screening Questions	Yes	No	Remarks
A. Project Siting Is the project area adjacent to or within any of the following environmentally sensitive areas?			
▪ Cultural heritage site		✓	
▪ Protected Area	✓		Stage II of the proposed road trace of the CE traverses adjacent to two archeologically protected monuments in Meerigama and Narammala Divisional Secretariat (DS) Divisions. Edge of the Right of Way (ROW) of the proposed trace of CE is located approximately 200m away from an ancient anicut which is located at 7^0 15' 46" N and 80 ^{0} 07' 57"E of Meerigama DS Division. On the other hand "Dharmashalawa" (7^0 22' 26" N, 80 ^{0} 11' 49"E) of Pallewatta Shri Gagaramay (a temple) of Narammala DS Division is located about 150m from the edge of the ROW. Road Development Authority (RDA) has already communicated with Department of Archeology (DoA) in this regard and it was confirmed that these monuments will not be impacted by the construction activities and they are in progress of issuing the consent over the proposed development.
▪ Wetland		✓	
▪ Mangrove		✓	
▪ Estuarine		✓	
▪ Buffer zone of protected area		✓	
▪ Special area for protecting biodiversity		✓	
B. Potential Environmental Impacts Will the Project cause…			

Screening Questions	Yes	No	Remarks
▪ Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?	✓		No encroachments will be envisaged to any of the historical areas as mentioned above due to construction activities of the expressway. However construction activities will be implemented under the direct supervision of the DoA to minimize any indirect impacts such locations. In addition, proposed trace of the CEP does not impact any other culturally important locations such as temples and churches etc… However landscape of the project area will be changed with the construction of embankments, cuts and other fills where necessary
▪ Encroachment on precious ecology (e.g. sensitive or protected areas)?		✓	
▪ Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?	✓		No permanent major alteration or blocking of surface water hydrology is expected if designs and construction plans are undertaken after comprehensively studying the existing hydrology of the project area. Adequate opening sizes at the correct location should also be adopted with specific flood return periods to overcome water stagnations in upstream. It should be ensured that there will not be any reduction of quantity or quality of water to the downstream users in each and every crossing of drainage paths. Carrying out construction works during lean flow periods, storing soil and other spoil materials away from water bodies, covering all soil dumps, carrying out construction activities during dry periods will reduce the amount of erosion and sedimentation.

Screening Questions	Yes	No	Remarks
▪ Deterioration of surface water quality due to silt runoff and sanitary wastes from worker-based camps and chemicals used in construction?	✓		This will be a temporary impact during the construction phase. Storing all material and chemicals required for construction in well secured and managed sites, installing silt traps near all water bodies prior to construction activities, disposing all waste soil and other debries to approved locations, locating labor camps at approved locations, providing proper sanitary facilities and solid waste management practices to worker camps and creating awareness on sanitation for workers will mitigate these impacts.
▪ Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?	✓		A temporary impact during the construction phase. Sprinkling water over gravel surfaces, at crushing plant and filling sites, using exact amount of chemicals for bitumen processing, siting asphalt plants and crusher plants away from sensitive sites such as settlement areas, temples and schools etc… will mitigate this impact.
▪ Risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during project construction and operation during project construction and operation?	✓		There will be a heavy worker base allocated to different activities associated with expressway construction and hence a significant impact is anticipated in relation to occupational health & safety. It is proposed to prepare a separate health and safety plan to be implemented during construction and operation phases, and a regular monitoring schedule to be proposed under close supervision and coordination of a professional Occupational Health & Safety Officer of the Project Implementation Consultant.

Screening Questions	Yes	No	Remarks
▪ Noise and vibration due to blasting and other civil works?	✓		The project will associate with noise generating activities hence significant impact is anticipated with respect to noise and vibration. During the construction phase. Standard mitigation measures are anticipated to minimize the impacts to acceptable levels which are specified in National Environmental (Noise Control) Regulations 1996 stipulated by NEA amendments act 924/12. On the other hand regular monitoring of noise levels and will be adopted based on baseline data gathered during the pre-construction stage and continuous monitoring is proposed as a mitigatory measure.
▪ Dislocation or involuntary resettlement of people?	✓		Proposed construction of the CE will involve acquisition of both private and government owned lands and buildings found on these lands of both residential and commercial will be demolished. This will create involuntary resettlement and the number of Affected Persons to be resettled is to be finalized with the updation of the Resettlement Plan (RP). Compensation to the market value based on the Land Acquisition Act and National Involuntary Resettlement Policy (NIRP) and implementation of an income restoration plan will mitigate the impact due to land acquisition and resettlement.
▪ Disproportionate impacts on the poor, women and children, Indigenous Peoples or other vulnerable groups?		✓	Indigenous People are not found within the project affected area. However if poor, women and children are identified who are found vulnerable in updated RP, specific mitigation measures will be proposed in the RP and will be implemented.
▪ Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?		✓	

Screening Questions	Yes	No	Remarks
▪ Hazardous driving conditions where construction interferes with pre-existing roads?	✓		This impact is observed during construction period if construction activities are going to interfere the existing roads and sub roads. Adequate awareness will be made among the construction staff including drivers and they will be educated in order to minimize hazardous driving conditions along such roads. Contractor will be advised to use alternative roads to the best possible to avoid roads which are heavily used by the public.
▪ Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases (such as STI's and HIV/AIDS) from workers to local populations?	✓		During the construction phase. Using local labour to the extent possible, briefing the workers on sanitation, communicable diseases, providing proper sanitary facilities and providing proper waste disposal system at worker camps are measures to mitigate this impact. Site specific environmental management action plans will be necessary in order to mitigate specific impacts to such labor camps.
▪ Creation of temporary breeding habitats for diseases such as those transmitted by mosquitoes and rodents?	✓		Implementation of approved drainage management plan will minimize the stagnation of storm water unnecessarily and frequent monitoring on such possible places and evacuation will minimize the impact.
▪ Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials?	✓		Using sign boards, barricades and other safety arrangements at the correct location, informing the public on possible hazards in advance and using PPE at all the time during construction will minimize this impact. All toxic material should be stored in well secured containers with labels and necessary first aid facilities should be available at every sites.

Screening Questions	Yes	No	Remarks
▪ Increased noise and air pollution resulting from traffic volume?	✓		Adaptation of speed limits for construction vehicles and timely servicing and maintaining them up to the given standards will reduce the volume of emissions and noise levels to the surrounding. Frequent monitoring of noise levels and air quality will support to review the effectiveness of the mitigation measures. Smooth and steady flow of traffic along the expressway during the operational phase will ensure the emissions and the noise kept below the maximum permissible levels. However mitigatory measures such as establishment of noise barriers will be considered at sensitive locations if recommended by the EIA.
▪ Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?	✓		Construction vehicles and machineries should be services only at approved locations where wastewater treatment facilities are available. Oil, fuel and other hazardous chemicals should be stored in the site if required in well closed containers at designated locations which are away from water bodies.
▪ Social conflicts if workers from other regions or countries are hired?	✓		Awareness programmes will be conducted for both labor force and local community in order to minimize possible conflicts. Frequent monitoring of sites, labor camps and other accommodations including the night time as well will minimize possible impacts.
▪ Large population influx during project construction and operation that causes increased burden on social infrastructure and services (such as water supply and sanitation systems)?	✓		Separate sanitary facilities and water should be adequately supplied to the labor force and they should not be interfered with the facilities available for the public.
▪ Risks to community health and safety due to the transport, storage, and use and/or disposal of materials such as explosives, fuel and other chemicals during construction and operation?	✓		It is proposed to conduct a risk assessment study to identify such safety issues and complete health and safety plan to be developed during construction and operation phases, and a regular monitoring schedule to be proposed under close management of a professional Occupational Health & Safety officer.

Screening Questions	Yes	No	Remarks
▪ Community safety risks due to both accidental and natural causes, especially where the structural elements or components of the project are accessible to members of the affected community or where their failure could result in injury to the community throughout project construction, operation and decommissioning.	✓		It is proposed to conduct a risk assessment study to identify such safety issues and complete health and safety plan to be developed during construction and operation phases, and a regular monitoring schedule to be proposed under close management of a professional Occupational Health & Safety officer.

A Checklist for Preliminary Climate Risk Screening

Country/Project Title: Central Expressway Construction Project of Sri Lanka

Sector: Roads & Highways

Subsector: Roads & Highways

Division/Department: Environmental

Screening Questions		Score	Remarks[1]
Location and Design of project	Is siting and/or routing of the project (or its components) likely to be affected by climate conditions including extreme weather related events such as floods, droughts, storms, landslides?	1	Kandy district has been identified as landslide prone to which the latter section of Phase III of CE falls.
	Would the project design (e.g. the clearance for bridges) need to consider any hydro-meteorological parameters (e.g., sea-level, peak river flow, reliable water level, peak wind speed etc)?	1	Project design may need to consider locations which are prone to landslides and sites where slides already occurred and necessary mitigation measures need to be incorporated to the designs.
Materials and Maintenance	Would weather, current and likely future climate conditions (e.g. prevailing humidity level, temperature contrast between hot summer days and cold winter days, exposure to wind and humidity hydro-meteorological parameters likely affect the selection of project inputs over the life of project outputs (e.g. construction material)?	0	
	Would weather, current and likely future climate conditions, and related extreme events likely affect the maintenance (scheduling and cost) of project output(s)?	0	
Performance of project outputs	Would weather/climate conditions and related extreme events likely affect the performance (e.g. annual power production) of project output(s) (e.g. hydro-power generation facilities) throughout their design life time?	0	

[1] If possible, provide details on the sensitivity of project components to climate conditions, such as how climate parameters are considered in design standards for infrastructure components, how changes in key climate parameters and sea level might affect the siting/routing of project, the selection of construction material and/or scheduling, performances and/or the maintenance cost/scheduling of project outputs.

Options for answers and corresponding score are provided below:

Response	Score
Not Likely	0
Likely	1
Very Likely	2

Responses when added that provide a score of 0 will be considered low risk project. If adding all responses will result to a score of 1-4 and that no score of 2 was given to any single response, the project will be assigned a medium risk category. A total score of 5 or more (which include providing a score of 1 in all responses) or a 2 in any single response will be categorized as high risk project.

Result of Initial Screening: Medium (Due to the landslide prone areas of Phase III)

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