



Supplementary ESIA for Gulhifalhu Dredging, Land Reclamation and Revetment Works

Update of the ESMP table with
requirements from the first EIA Addendum
(2021)

08 December 2021

Table 4.1 Environmental and Social Management Plan

Action Item/ Recommendation	Source	Proposed Action Party	Implementation Timeline	Associated Management Plan
Noise Pollution Management				
Properly tune and maintain all vehicles and machinery	EIA 2020	Contractor	Throughout the Project	HSE Management Plan
Monitor all occupation areas (construction areas) to ensure noise levels do not exceed OSHA standards and provide appropriate PPE where noise levels cannot be reduced	EIA 2020	Contractor	Throughout the Project	Work Method Statement
Where possible, avoid shore protection and rock handling works on the eastern end facing Villingli between 11 pm and 6 am	EIA 2020 (impacts on tourism)	Contractor	Throughout the Project	Work Method Statement
Air Pollution and GHG Emissions				
All vehicles and construction equipment must be maintained and properly tuned in accordance to manufacturer's specifications.	EIA 2020	Contractor	Throughout the Project	HSE Management Plan
All equipment shall be checked to determine if they are in proper condition prior to commencement of construction activities.	EIA 2020	Contractor	Throughout the Project	HSE Management Plan
Construction equipment idling times shall be minimised by shutting equipment off when not in use.	EIA 2020	Contractor	Throughout the Project	HSE Management Plan
Marine Water Quality Degradation				
All reclamation works should be undertaken behind bund at least on sides facing the reef slope or sea. Particular attention is required in the vicinity of Hans Haas Place. The bund or containment measures should sufficiently enclose the reclamation area to minimise sediment plumes leaving the project footprint during filling. Given the deep water and narrow shallow reef flats on Gulhifalhu, it is	EIA 2020	Contractor	Prior to start of dredging and reclamation activities with TSHD	Work Method Statement

acceptable to contain only the rim of the reef system. The preliminary plan, as included in Chapter 2 of the EIA, for bund walls can be modified in consultation with the environmental consultant but the basic principle of containing the turbidity plumes to the Project footprint as much as possible must be followed.				
Where practical silt screens or a similar curtain can be used to complement the sand bunds and contain sediment plumes at any turbid water exist points, and protect marine life.	EIA 2020	Contractor	Prior to start of dredging and reclamation activities with TSHD and throughout the Project	Environmental Management Plan
The impacts from dredging the borrow area is more difficult to control. The most important mitigation measure is to control the overflow on TSHD to minimise impacts during loading into the hopper. The proposed TSHD for this project has a Green Valve installed in the overflow structure, which can be switched on if necessary. Routine monitoring and maintenance must be undertaken to ensure that the Green Valve is functioning adequately.	EIA 2020	Contractor	Throughout the Project	Environmental Management Plan
In the areas defined as "Controlled Overflow" in Figure 8.1 of EIA Report and Figures 8.8 – 8.10 in the EIA Addendum Report, the Green Valve will always be switched on. If the Green Valve fails for any reason, overflow will be minimized or avoided. If the Green Valve fails or needs to be turned off for any reason, overflow shall be minimised or avoided, in the areas	EIA 2020 and first EIA Addendum 2021	Contractor	Throughout the Project	Environmental Management Plan

defined as “Controlled Overflow” in the EIA Report and EIA Addendum Report. If the Green Valve fails, minimize or restrict TSHD overflow				
Given the high potential of sedimentation rate and turbidity level exceedance when dredging between Aarah and Kurumba Island Resort (as corroborated in the plume models), it is recommended to avoid dredging between the two islands. The No Dredging zones are defined in Figure 8.10 in the EIA Addendum Report.	First EIA Addendum 2021	Proponent and Contractor	Throughout the Project	Environmental Management Plan
Restrict dredging within the eastern arm of the alternative sand borrow area B and left arm will be a controlled overflow area (Figure 8.10). This is to limit turbidity impacts on nearby reefs used for snorkeling, limit light reduction in sensitive reefs in the vicinity, namely Kurumba Resort House Reef, Sheraton Full Moon Resort house reef and Gaathugiri Protected Area, and to clear the major marine traffic routes from turbid waters during daytime.	First EIA Addendum 2021	Proponent and Contractor	Throughout the Project	Environmental Management Plan
Dredging from borrow site Alternative B to be avoided between 15 December and 15 January to avoid impacting year end peak tourism period.	First EIA Addendum 2021	Proponent and Contractor	Throughout the Project	Environmental Management Plan
If practical, it is advised to restrict dredging during mass coral spawning periods. Predictions and visual observation should be undertaken by a qualified marine biologist to identify spawning events which usually takes place between April and May spring tides. Many species of corals reproduce during	EIA 2020	Proponent	Throughout the Project	Environmental Management Plan

<p>one night of the year and different species may have different spawning periods. The marine biologist or the environmental consultant should determine if spawning is going to take place, and where it is taking place within the footprint of the Project and advise the contractors. If practical, it is advised to stop dredging and reclamation works at least for 12 days – 5 days before and 7 days after spawning. In case the date is missed, dredging can be ceased for 7 days after spawning event is detected. Daily monitoring by marine biologist is recommended during this period.</p>				
<p>Maintain a threshold level for sedimentation among the identified monitoring sites within atoll lagoon, in proximity to the borrow site, to not exceed a maximum of 15mg/cm²/day for at least 20% of the measurements. Exceptions shall be made where background rates presented in this report exceeded the threshold rates (including T-9 (Hans Hass Place), T- 13 (Lion's head - Thilafushi), T-27 (Baros), T-28 (Banana Reef), T- 32 (Bandos)); and in reefs where extensive reclamation work has been undertaken (including e.g. Thilafushi, Gulhifalhu, Villigili, Malé, Hulhumalé). Considerations shall also be made to account for naturally elevated sedimentation levels which may occur during storm events or bad weather.</p>	EIA 2020	Proponent and Contractor	Throughout the Project	Environmental Management Plan
<p>Maintain a threshold level for turbidity at all reefs within the atoll lagoon in proximity to</p>	EIA 2020	Proponent and Contractor	Throughout the Project	Environmental Management Plan

the dredging site, measured as Total Suspended Solids (TSS) to a maximum of 10 mg/L not exceeding 20% of the measurements (see monitoring chapter). Exceptions shall be made where background rates exceeded the threshold level and in reefs where extensive reclamation work has been undertaken. Considerations also shall be made to account for naturally elevated levels of turbidity which may occur during storm events or bad weather.				
Complete dredging and reclamation works in shortest time period possible. Contingencies should be planned ahead in the event of dredger or key equipment failure as has been witnessed in some other reclamation projects in the Maldives. If work needs to be stopped for an unforeseen reason for an extended time (over a year), all temporary sand bunds placed must be secured from erosion or removed.	EIA 2020	Proponent and Contractor	Throughout the Project	Environmental Management Plan
Rainbowing shall not be used as a method for reclamation or filling.	EIA 2020	Contractor	Throughout the Project	Work Method Statement
Excavator movement should stick to predefined routes for travel along the reef.	EIA 2020	Contractor	Throughout the Project	Environmental Management Plan
Regularly monitor floating pipelines for leakage and fix leaks identified before the next load.	EIA 2020	Contractor	Throughout the Project	Environmental Management Plan
All staff involved in dredging and reclamation works must be briefed on the sensitivity of the reef and the mitigation measures proposed in the EIA report.	EIA 2020	Contractor	Throughout the Project	Environmental Management Plan

Monitor the level of Turbidity and Sedimentation Rate on select locations to verify that the sediment containment measures are effective (see Monitoring section).	EIA 2020 and first EIA Addendum 2021	Proponent and Contractor	Throughout the Project	Environmental Management Plan
Supervise all construction activities to ensure that large vehicles and dredger do not move outside the project boundary, and ensure the reef flat levelling is restricted to the required area only.	EIA 2020	Contractor	Throughout the Project	Environmental Management Plan
Place buoys to clearly identify reef edges along the path of major traffic routes that may be affected due to turbidity. Buoys can be deployed after monitoring the turbidity patterns.	EIA 2020	Contractor	Throughout the Project	Environmental Management Plan
Marine Habitat Loss and/or Degradation				
Clearly mark the dredging (for channel excavation) and reclamation boundaries, and ensure no dredging, or reclamation are conducted outside these boundaries. For TSHD, the ships navigation system ensures dredging is undertaken within the boundary.	EIA 2020	Contractor	Prior to start of work and to be monitored prior to any dredging/reclamation activities	Environmental Management Plan
Instruct all construction workers to strictly restrict all construction activities within the marked boundaries.	EIA 2020	Contractor	Throughout the Project	Environmental Management Plan
Relocate coral colonies from the reclamation footprint, where possible. The following options should be considered. a. Relocate as many smaller colonies as possible from the reclamation footprint to suitable nearby locations and nurseries. b. Attempts could be made to move some of the moderately large coral colonies. c. For all remaining colonies and where relocation of corals is not feasible/practical,	EIA 2020	Proponent	Prior to the start of dredging & reclamation activities with the TSHD	Environmental Management Plan

proponent should discuss with the Ministry of Environment to identify possible mechanisms to offset the loss. This includes funding conservation measures at other protected marine site(s) in Maldives.				
Dredge vessel should not enter a marine protected area during dredging or when returning with a full hopper.	EIA 2020	Contractor	Throughout the Project	Environmental Management Plan
Construct a barrier of 1m x 1m x 1m sand filled bags that should reach above high-tide level between the outer reef edge and sand bund. The barrier should be placed before the bund construction starts, so that sediment plume is minimized. For Stage II, increased height of the row of big bags, to reduce the mixing of water that is occurring in high tide conditions as observed in Stage I. The high tide conditions were passing over the big bag arrangement and therefore reducing its efficacy as a mitigation measure to contain turbidity from bund construction activities. The row of big bags (with increased height) will be placed before the start of bund construction, which is expected to eliminate the need for temporary construction stoppages to mitigate spreading of plumes towards Villingili.	Supplementary ESIA (CHA)	Contractor	Prior to start of land reclamation and before completion of permanent revetment	Environmental Management Plan
Given that the coral habitats within Gulhifalhu lagoon will be permanently lost due to burial or sedimentation, and that there is no practical mitigation measure to save them within the project timeframe, it is	EIA 2020	Proponent	During the Project's timeline	Biodiversity Action Plan

recommended to compensate the loss by substantially funding marine conservation efforts by NGOs or Conservation Groups in the Maldives				
<p>A Biodiversity Offset Plan (BOP) should be developed for the Project after evaluating feasibility of the following offset options that are further detailed in the CHA-BAP:</p> <ul style="list-style-type: none"> ■ Improve protection status of Environmentally Sensitive Areas (ESAs) to Marine Protected Areas (MPAs). The selected ESAs should ideally be in the Aol of the Project (Error! Reference source not found.) or if not possible, in the EAAA of the Project (provided in CHA-BAP); ■ Support community-based coral farming and reef rejuvenation projects in offset areas. Generally rejuvenation of degraded reef is a cost intensive process but community-based coral farming and using such coral to rejuvenate degraded parts of offset sites can be a cost effective option and such initiative can also provide alternate livelihood options for local communities; and/ or ■ Post-Project reef should be created at Gulhifalhu using the permanent revetment structure to create appropriate hard substrate for resident species as rock revetment can provide ideal hard substrate for development of future coral growth. <ul style="list-style-type: none"> ○ Offset Measure for <i>Helcogramma larvata</i> (Critical Habitat Trigger) - The 4.5km long rock revetment at Gulhifalhu is expected to provide 	Supplementary ESIA (CHA)	Proponent	During the Project's timeline	Biodiversity Offset Plan

suitable habitat for the species. Moreover, the species was recorded from Male' Island, so proximity of Gulhifalu to Male' makes Gulhifalhu a suitable Offset site for <i>Helcogramma larvata</i> .				
The expansion of an existing Marine Protected Area, or the designation of a new Marine Protected Area and enforcement of its protection: It is also recommended to assess and declare a new Marine Protected Area in North Malé Atoll to compensate for the expected impacts on Hans Hass Place during construction and from future operations on the island.	EIA 2020	Proponent	During the Project's timeline	Biodiversity Offset Plan
Waste and Contamination (groundwater and soil)				
Oil, solid waste & hazardous waste handled carefully & transported in sealed containers.	EIA 2020	Contractor	Throughout the Project	HSE Management Plan
All paints, lubricants, and other chemicals used on site stored in a secure and bunded location	EIA 2020	Contractor	Throughout the Project	HSE Management Plan
General refuse stockpiled in one central area	EIA 2020	Contractor	Throughout the Project	HSE Management Plan
Keep spill clean-up materials readily available	EIA 2020	Contractor	Throughout the Project	HSE Management Plan
Train workers in spill prevention and clean-up, and designate responsible individuals	EIA 2020	Contractor	Throughout the Project	HSE Management Plan
Properly tune and maintain all machinery	EIA 2020	Contractor	Throughout the Project	HSE Management Plan
Carry out construction activities under the supervision of a suitably experienced person	EIA 2020	Contractor	Throughout the Project	HSE Management Plan
Septic tanks systems must be installed on any temporary toilets constructed on the newly reclaimed land.	EIA 2020	Contractor	Throughout the Project	HSE Management Plan

Reduced Landscape Integrity/Scenery				
Future, landscape planning must consider limiting aesthetic impacts on Villigili by wherever possible using vegetation as a screen on its eastern side to hide activities on Gulhifalhu.	EIA 2020	Proponent	Port Design	Port Development Vegetation Plan
Natural Hazards				
Possibility of seasonal wave over topping exists on the southern shoreline. Landscape planning must consider limiting the effects of over topping on any land use in the vicinity.	EIA 2020	Proponent	Port Design	Port Development Plan
Changes to Hydrodynamics				
Monitor the changes to current speed within Villigili channel	EIA 2020	Proponent	Post-construction	Environmental Management Plan
<p>If there is an increased speed:</p> <ul style="list-style-type: none"> ■ Monitor scouring at the toe of breakwater and revetment on the western side of Villigili, which is in close proximity to reef edge (see monitoring programme). If scouring is present, inform Ministry of Planning National Infrastructure. ■ Place safety signs on Villigili beach warning of increased currents, if required. 	EIA 2020	Proponent	Post-construction	Environmental Management Plan
Changes to Coastal Processes				
Monitor coastal changes at Villigili Island as defined in monitoring programme.	EIA 2020	Proponent	Throughout the Project	Environmental Management Plan
Where possible or practicable, dredge vessel to limit the movement through Villigili channel to minimize boat wake related erosional pressure when possible/practical.	EIA 2020	Contractor	Throughout the Project	Environmental Management Plan
Risks to Occupational Health and Safety				

Construction workers operating equipment that generates loud noise should be equipped with appropriate hearing protection. As a guide, workers operating equipment generating noise of > 80 dBA should wear ear muffers and workers experiencing prolonged noise levels > 70 dBA must wear ear plugs.	EIA 2020	Contractor	Throughout the Project	HSE Management Plan
Employees to be fit for duty according to Contractor's HSE requirements.	EIA 2020	Contractor	Throughout the Project	HSE Management Plan
Necessary safety gear will be worn at all times. These include safety gloves, construction boots, facemasks, earmuffs, etc. according to Job Hazard Analysis requirements.	EIA 2020	Contractor	Throughout the Project	HSE Management Plan
Fire extinguishing equipment would be readily available and employees will be familiarised with its use.	EIA 2020	Contractor	Throughout the Project	HSE Management Plan
Oxygen, acetylene or LPG bottles will be stored properly.	EIA 2020	Contractor	Throughout the Project	HSE Management Plan
First aid kits will be made available on site.	EIA 2020	Contractor	Throughout the Project	HSE Management Plan
The construction site will be visibly closed to unauthorised personnel.	EIA 2020	Contractor	Throughout the Project	HSE Management Plan
Risk to Public Health and Safety				
Announce on public media a safety notice regarding dredger activities and reclamation works on Gulhifalhu.	EIA 2020	Proponent	Prior to start of dredging works	Stakeholder Engagement Plan
Coordinate with marine traffic police all activities related to dredging with in the major local travel routes out of Malé.	EIA 2020	Proponent and Contractor	Prior to start of dredging works	Stakeholder Engagement Plan
Warning signs, barricades or warning devices will be provided and used.	EIA 2020	Contractor	Throughout the Project	HSE Management Plan
Based on turbidity patterns on site, deploy buoys to clearly identify the reef edges along	EIA 2020	Contractor	Throughout the Project	HSE Management Plan

the path of boats that may be affected due to turbidity.				
Increase in Demand for Resources/Services				
Use temporary power generators for the project site if STELCO cannot provide sufficient power for the project.	EIA 2020	Contractor	Throughout the Project	Work Method Statement
Coordinate with Gulhifalhu Ferry Operators on the anticipated travel requirements for Project teams to ensure enough ferry space is available for the Project staff and locals.	EIA 2020	Contractor	Throughout the Project	Work Method Statement
Impact on Marine Traffic				
Publicly inform all boats using the Malé region including resorts and ferries regarding dredger activities.	EIA 2020	Proponent and Contractor	Throughout the Project	Stakeholder Engagement Plan
Inform Maldives Transport Authority and Maldives Ports Limited in a timely manner to remove vessels at anchorage to temporarily shift vessels as required.	EIA 2020	Proponent and Contractor	Throughout the Project	Stakeholder Engagement Plan
Inform Marine Police and Coast Guard on the Project schedule and regularly coordinate with them to minimize incidents, given that the area is a high traffic zone.	EIA 2020	Proponent and Contractor	Throughout the Project	Stakeholder Engagement Plan
Contractor to consider start dredging in areas with no ships anchored and request for moving ships only if necessary	EIA 2020	Contractor	Prior to start of works and continuously as required during the Project activities	Stakeholder Engagement Plan
Share the dredging schedule in advance and coordinate with MPL to shift the vessels anchorage which are in the path of the dredger if required.	EIA 2020	Proponent and Contractor	Prior to start of works and continuously as required during the Project activities	Stakeholder Engagement Plan
Regularly coordinate with the Marine Traffic Police and Coast Guard with regard to movement of their vessels. The boats and ferries operating within the Male region should also be continuously kept updated	Supplementary ESIA (HRIA)	Contractor	Prior to start of works and continuously as required during the Project activities	Stakeholder Engagement Plan

about the dredging activities, as proposed in the EIA.				
Social Impacts and Livelihoods				
<ul style="list-style-type: none"> ■ Inform all resorts within a 5 km radius of dredging site, all dive centres in Malé Atoll, Whale Submarine operators and Villigili Dive schools/centres about the project work plan to help them prepare for the construction stage. ■ Inform resorts in the Project area about the Project work plan to help them prepare for the construction phase. ■ Inform Villingli community and nearby resorts on the overall plans and reclamation schedule. ■ Adequate and timely communication to the potentially affected fisherfolk and dive centres on the schedule, type and time period of the Project activities so that they can plan their activities accordingly. ■ Stakeholder Engagement Plan that is intended to be implemented during Stage II will ensure that there will be prior intimation of the dredging calendar/timelines/safeguards to local councils, resorts, dive centres and the Maldives Fisherfolk Association as a proactive and prior communication initiative. 	EIA 2020 (noise pollution, resource use conflicts, impacts on tourism) / Supplementary ESIA (EDA)	Proponent and Contractor	Prior to start of works and continuously as required during the Project activities	Stakeholder Engagement Plan
Identify and inform resorts of a person responsible for liaising (CLO) with resorts on their complaints and requests.	EIA 2020	Proponent and Contractor	Prior to start of works and continuously as required during the Project activities	Stakeholder Engagement Plan
Where possible, perform dredging in areas closest to resorts during night time, to reduce visual impacts due to turbidity and ship presence for guests.	EIA 2020	Proponent	Throughout the Project	Work Method Statement

<p>Ensure that fisherfolk and local dive centres have access to the Project Community Grievance Redressal Mechanism</p> <p>Damage Compensation Framework to be included as part of the Community GRM so that any damage to equipment, boats, fish gear etc due to activities of the Project and/or its contractors can be compensated</p> <p>Perceived livelihood loss from any stakeholder within the EDA Study Area which will need to be assessed and evaluated through the Project Community Grievance Redressal Mechanism.</p>	Supplementary ESIA (EDA)	Proponent	Prior to start of works and continuously as required during the Project activities	Stakeholder Engagement Plan
Inclusion of representatives of fisherfolk and local dive centres as part of Stage 2 Community-based Monitoring Activities.	Supplementary ESIA (EDA)	Proponent	Prior to start of works and continuously as required during the Project activities	
Livelihood restoration measures as agreed via the process outlined in the Economic Displacement Assessment (EDA).	Supplementary ESIA (EDA)	Proponent	Prior to start of works, throughout the Project and post-construction	Activity-Wise Sub-Plans for Proposed LR Measures
Stakeholder Engagement				
Inform and consult all stakeholders at all stages of the Project	EIA 2020	Proponent	Prior to start of dredging, land reclamation and revetment works and continuously as required during the Project activities	Stakeholder Engagement Plan
Implement the Grievance Redress Mechanisms as proposed in the EIA to address complaints regarding the project activities.	EIA 2020	Proponent	Prior to start of dredging, land reclamation and revetment works and continuously as required during the Project activities	Social Management Plan

<p>Review and update the Project's Stakeholder Engagement Plan to incorporate specific safeguards from EP 4 (2020) and IFC PS 1 (2012) which will include:</p> <ul style="list-style-type: none"> ■ Develop a mechanism (website and in-person meetings) disseminate information on the Project status, ongoing activities, likely impacts and control measures (including islands around borrow areas); this can be done on an on-going basis, to be determined by the SEP to be developed; ■ Ensure vulnerable groups within identified stakeholders are specifically mapped out and included for engagement; ■ Ensure implementation of Grievance Mechanism by the Sub-Contractor. Any grievances received by the Sub-Contractor from external stakeholders may be directed to the Project's' grievance mechanism for overall coordination and monitoring (recording, tracking and redressal). ■ Record and document all stakeholder engagement activities in a central database; ■ Recruit and engage Project's Community Liaison Officer(s) (CLO(s)), to be deputed full time during the reclamation activities and before/after through appropriate engagement techniques (commensurate with projects activities as there will not be full engagement post-construction). 	<p>Supplementary ESIA (HRIA)</p>	<p>Proponent</p>	<p>Prior to the mobilization of contractors or workers to the site for reclamation works in Stage II</p>	<p>Stakeholder Engagement Plan</p>
<p>Human Rights</p>				

<p>The Contractor will ensure the implementation of the it's relevant corporate policies across the Gulhifalhu Stage II process and will extend applicability of these policies to any subcontractors commissioned for the Project: Contractor Supplier Code of Conduct.</p>	<p>Supplementary ESIA (HRIA)</p>	<p>Contractor</p>	<p>Prior to and on an ongoing basis as part of Stage II contractor mobilization</p>	<p>Contractor Supplier Code of Conduct</p>
<p>Implement the following provisions of the Contractor Human Rights and Labour Policy:</p> <ul style="list-style-type: none"> ■ No forced labour, modern slavery or human trafficking; ■ No child labour; ■ Freedom of association, right to collective bargaining and employee representation; ■ Work culture; ■ No discrimination and harassment; ■ Equal opportunities, talent development and diversity; ■ Safety and health; ■ Labour conditions; and ■ Community engagement. 	<p>Supplementary ESIA (HRIA)</p>	<p>Contractor</p>	<p>Prior to and on an ongoing basis as part of Stage II Contractor mobilization</p>	<p>Contractor Human Rights and Labour Policy</p>
<p>In the event security personnel/ agencies are engaged at the Site, develop and implement Contractor Security Management Plan, to be integrated into the existing HSE Plan.</p>	<p>Supplementary ESIA (HRIA)</p>	<p>Contractor</p>	<p>Prior to and on an ongoing basis as part of Stage II Contractor mobilization</p>	<p>Contractor HSE Plan</p>
<p>In the Labour and Content Management Plan include measures on addressing Gender-based Violence and Harassment (GBVH), which should be in line with IFC's Good Practice Note on Addressing Gender-Based Violence and Harassment in the Private Sector. The plan should specify the Project's commitment to non-tolerance of GBVH and also specify the behaviours</p>	<p>Supplementary ESIA (HRIA)</p>	<p>Contractor</p>	<p>Prior to the start of Stage II of the Project</p>	<p>Addendum to the Human Rights and Labour Policy</p>

<p>expected of workers, as well as training and reporting requirements.</p>				
<p>Develop a Corrective Action Plan as part of the Environmental, Social and Governance Supply Chain Management Plan, prior to the commencement of Stage 2. The Corrective Action Plan will assess ESG gaps identified as part of the Supply Chain Risk Assessment and capture recommendations based on the Human Rights Impact Assessment, and propose actions to be undertaken by subcontractors and suppliers to address these gaps within defined timeframes.</p> <p>The Corrective Action Plan shall further:</p> <ul style="list-style-type: none"> ■ Assess information received from the Supply Chain Questionnaires from suppliers, including FSM (basis information and access provided), and complete in case of any gaps in information ■ Include guidance to audit as per the 11 ILO indicators of forced labour ■ Mandate an annexure to any further purchase orders by the Sub-Contractor requiring suppliers to provide an undertaking specifying the suppliers' obligations to confirm with the applicable laws on employment terms as well as working conditions as well as the Contractor's Supplier Code of Conduct. <p>Contractor will undertake monitoring of subcontractors and supplier based on the Supplier Code of Conduct</p>	<p>Supplementary ESIA (HRIA)</p>	<p>Contractor</p>	<p>Prior to and on an ongoing basis as part of Stage II contractor mobilization</p>	<p>Contractor Corrective Action Plan</p>
<p>Labour and Working Conditions</p>				

<p>Implement Contractor Human Resources Management Plan which will be renamed as Labour and Local Content Management Plan. The following aspects are presently covered and will be further updated for Stage II:</p> <ul style="list-style-type: none"> ■ Labour standards which include guidelines on working hours and conditions as well as accommodation; ■ Health and safety screening, preventative measures for Covid-19; ■ Policy on child labour, forced labour and human trafficking; ■ Workforce grievance mechanism ■ Recruitment and local hiring procedures; and ■ Procurement policy. 	<p>Supplementary ESIA (HRIA)</p>	<p>Contractor</p>	<p>Prior to and on an ongoing basis as part of Stage II contractor mobilization</p>	<p>Contractor Labour and Local Content Plan</p>
<p>Contractor to require Sub-Contractor to develop a Labour Management Plan which shall include the following and Contractor to regularly monitor and audit Sub-Contractors implementation of the management procedures. The plan shall include:</p> <ul style="list-style-type: none"> ■ Policy to ensure labour recruitment of all categories of workers, including migrant workers, are in compliance with national regulations as well as international standards, including applicable policies for wages and benefit structures, working hours, and overtime. ■ A policy for non-engagement of child labour, forced labour and TIP as well as gender and gender-based violence. ■ Measures for worker accommodation, in line with IFC PS2, ILO and EBRD requirements. 	<p>Supplementary ESIA (HRIA)</p>	<p>Contractor</p>	<p>Prior to the start of Stage II of the Project</p>	<p>Sub-Contractor Labour Management Plan</p>

<ul style="list-style-type: none"> ■ The plan should also include policies for labour recruitment, wages and benefit structures, working hours and overtime. ■ A mechanism for screening the health of workers as well as measures for management of Covid-19. ■ A mechanism for receiving workers' grievances, aligned with <u>the Contractor's Project Worker Grievance Procedure</u>. ■ Mandatory training for all workers to be aware of their role in the stakeholder engagement and community grievance mechanism process, and to follow the Contractor's' Code of Conduct ■ Grievances raised by workers of the Sub-Contractor should also be raised to and addressed by the Sub-Contractor. 				
<p>Sub-Contractor to ensure the following provisions for its workers:</p> <ul style="list-style-type: none"> ■ Include any contractual workers in the Maldives into the voluntary Maldives pension scheme (MRPS); migrant workers who may be interested, may also enrol in the scheme; ■ Enrol (migrant) workers in the Maldives into the group personal accident insurance scheme; and ■ Enrol its (migrant) workers in the Maldives into the health insurance scheme. <p>Contractor to check and monitor that these provisions have been put in place by Sub-Contractor.</p>	Supplementary ESIA (HRIA)	Contractor	Prior to the start of Stage II of the Project	Sub-Contractor Labour Management Plan
<p>Sub-Contractor to ensure that the supplier Hari & Co receives consent in writing from the workers, prior to their handover of the passports.</p>	Supplementary ESIA (HRIA)	Contractor and Sub-Contractor	Prior to the start of Stage II of the Project	Sub-Contractor Labour Management Plan

The Contractor to monitor the implementation of this recommendation.				
Provide proper orientation to all workers regarding local values and customs	EIA 2020	Contractor	Prior to the start of Stage II of the Project	Contractor Labour and Local Content Plan/ Sub-Contractor Labour Management Plan
Climate Change Risk				
<p>Revetment design:</p> <ul style="list-style-type: none"> ■ Increasing the design return period (to 1/100 per year) and design lifetime (to 50 years) to align with similar coastal protection projects in the area. A design lifetime of 50 years is in line with the national building code of The Maldives for buildings (Ministry of Construction and Public Infrastructure, 2008); ■ The impact of increasing temperatures or more intense rainfall on the workforce and port safety should be considered; and ■ Assessing the hydraulic boundary conditions (including governing wave conditions and the effects of cyclones) into more detail. 	Supplementary ESIA (CCRC)	Proponent	As part of the design of the overall port	Project Design Review
<p>Constructed sections of the revetment:</p> <p>It is recommended to make these sections more climate-resilient in the first 25 years by:</p> <ul style="list-style-type: none"> ■ Adopting an extensive operation and maintenance program that ensures structural stability during the design lifetime; and ■ Strengthening the current revetment (e.g. widening and/or strengthening the crest and rear side of the crest to prevent scour by either widening the crest or by building an asphalt layer / high quality grass cover). 	Supplementary ESIA (CCRC)	Proponent	As part of the design of the overall port	Project Design Review

<p>Design / Layout of the Port Area</p> <p>Regarding the alignment and layout of the future port area on the reclamation, the following recommendations are made:</p> <ul style="list-style-type: none"> ■ Integrating design of the revetment in relation with the area directly behind the crest with the consideration of the overtopping criterion; ■ A minimum level of at least 3 m +CD is recommended for minimum floor levels or levels for critical elements of facilities (e.g. electrical equipment and mechanical installations) within the national building code; and ■ Considering impact from events such as increasing temperatures or more intense rainfall on the workforce and port safety. 	<p>Supplementary ESIA (CCRC)</p>	<p>Proponent</p>	<p>As part of the design of the overall port</p>	<p>Project Design Review</p>
<p>Emergency Response</p>				
<p>Update Emergency Response Plan to include measures proposed in the CCRC:</p> <p>Before the Storm and Tsunami</p> <ul style="list-style-type: none"> ■ Staff should pause working in advance of storm arrival; ■ Staff should be trained to understand where emergency medical assistance can be obtained and where disaster stations will be established before storm arrives; ■ Staff should stay away from oceans; ■ Set up an office routine of checking reports on progress of storms; and ■ Secure all outdoor objects that might be blown away or uprooted by anchoring them or moving them indoors. ■ Labour facilities should be protected against damage and labour should have 	<p>Supplementary ESIA (CCRC)</p>	<p>Contractor</p>	<p>Throughout the Stage II activities</p>	<p>Emergency Response Plan</p>

<p>an appropriate shelter during the storm, also for sub-contractors.</p> <ul style="list-style-type: none"> ■ Have a satellite phone at main locations, charged and functional. ■ Bring ships in sheltered areas. <p>During the Storm and Tsunami</p> <ul style="list-style-type: none"> ■ Beware the eye of the storm. A lull in the wind can occur lasting from minutes to over an hour when the calm storm centre passes. ■ Keep communication lines open among the different shelters and with the emergency services. <p>After the Storm and Tsunami</p> <ul style="list-style-type: none"> ■ Stay out of disaster areas; ■ When electric power is disrupted, turn off appliances and light switches so that electric circuits will not be overloaded when electricity is restored; ■ Eat food stored in refrigerators and freezers within first few hours only, otherwise eat canned food; and ■ Check on colleagues and assist anyone in need of medical attention. ■ Check and repair damage on facilities, equipment and ships. 				
<p>Update the Emergency Spill Response Plan prepared in the EIA to include an analysis of potential receptors and mechanisms for informing them in the event of an oil/chemical spill.</p>	<p>Supplementary ESIA (HRIA)</p>	<p>Contractor</p>	<p>Prior to the start of Stage II of the Project</p>	<p>Emergency Spill Response Plan</p>
<p>Considering that the Maldives is a state prone to tsunamis and cyclones, the country has deployed an earthquake and tsunami awareness alert system that is</p>	<p>Supplementary ESIA (CCRC)</p>	<p>Contractor</p>	<p>Throughout the Stage II activities</p>	<p>Emergency Response Plan</p>

classified as Alert 1, Alert 2 and Alert 3 from low to high risk level. Contractor is recommended to follow the specific guidance under each of alert level during Phase I.				
Cumulative Impacts				
<ul style="list-style-type: none"> ■ Timing and design of dredging/reclamation operations- ■ Since both the PUC and MTL projects share a common project proponent and since the dredging for MTL is expected to happen over a shorter time duration than for PUC, dredging operations at the primary borrow area could be planned in a way that simultaneous dredging of Stage-2 of PUC and the MTL project could be avoided. MNPPI to consider measures to avoid cumulative dredging impacts between PUC and MTL during the MTL EIA process. ■ MNPPI to discuss with Giravaru Project proponent and EPA to be conducted to identify any plan for dredging from alternate borrow area of Giravaru project and its tentative timeline. Regular discussion to be conducted with the Giravaru Management so that dredging at alternate borrow area for Giravaru project could be avoided at the time of PUC dredging near Giravaru so that possibility of cumulative impacts could be avoided/minimized ■ MNPPI to lead coordination for study designs of PUC and reclamation at Villingili for landing of MTL project and consider optimisations in design and timing so that cumulative impacts of due to dredging and reclamation for PUC and MTL project could be avoided. 	Supplementary ESIA (RCIA)	Proponent	During dredging/reclamation period	Environmental Management Plan

<ul style="list-style-type: none"> ■ Coordination and alignment of adaptive dredging and reclamation works for turbidity impact mitigation: ■ Regular monitoring of turbidity values near the dredging areas and adapt dredging and reclamation methodology (e.g. location, timing) temporarily as feasible when visible turbid plume reaches sensitive receptors (e.g. Villingili, resort islands, MPAs, ESAs), or when turbidity limits are exceeded. 	Supplementary ESIA (RCIA)	Proponent	During dredging/reclamation period	Environmental Management Plan
<ul style="list-style-type: none"> ■ Coordination and alignment of monitoring of water quality for turbidity and sedimentation rates among the different projects, adjusting the monitoring programme if necessary based on the experience gained during construction. This information will help to identify the areas where there is possibility of increase in turbidity and sedimentation due to cumulative impacts 	Supplementary ESIA (RCIA)	Proponent	During dredging/reclamation period	Environmental Management Plan
<ul style="list-style-type: none"> ■ Coordination and alignment of monitoring of coral reefs among the different projects, adjusting the monitoring programme if necessary based on the experience gained during construction. ■ Monitoring of coral reef ecosystems will consider <ul style="list-style-type: none"> ■ Live coral percentage ■ Percentage of CCA ■ Density and richness of reef associated fish <p>This information will help to identify the areas where there is possibility of impact to live corals, CCA and fish due to cumulative impacts.</p>	Supplementary ESIA (RCIA)	Proponent	During dredging/reclamation period	Environmental Management Plan
Development of a regional engagement strategy which will include:	Supplementary ESIA (RCIA)	Proponent	During the dredging/reclamation period with specific focus on the	Stakeholder Engagement Plan

<ul style="list-style-type: none"> ■ Proactive engagement mechanisms focused on the Kaafu Atoll and the Greater Male Region to communicate schedules (e.g. dredging calendar) as well as calendar of vessel movements (among other issues) with key stakeholders (including project teams); ■ Proactive information disclosure (through the print/social media) on mitigation measures being implemented and outcomes of any ongoing monitoring in English and Dhivehi; ■ Consolidated mechanism to receive, address and thereafter disclose the outcomes of concerns and grievances raised (keeping confidentiality provisions in mind) 			overlapping timelines of the projects (MTL and Giravaru)	
<ul style="list-style-type: none"> ■ Any proposed core LR measures for Villingili under the EDA to be implemented taking into account potential impacts of the PUC as well as the MTL project in order to holistically consider intensity of cumulative impacts on coral reef dependent livelihoods as well as the feasibility of the core LR measures. ■ Consider implementation of the current core restoration measures proposed under the EDA as a regional initiative to be implemented at various locations across the RCIA Study Area 	Supplementary ESIA (RCIA)	Proponent	Prior to start of works, throughout the Project and post-construction	Activity-Wise Sub-Plans for Proposed LR Measures