



Kobuleti Seawall Rehabilitation

Sub-Project Environmental and Social Screening and Environmental Management Plan

**WORLD BANK FINANCED
SECOND REGIONAL AND MUNICIPAL INFRASTRUCTURE DEVELOPMENT
PROJECT**

April 2017

Sub project Description

The Sub-project (SP) envisages dismantling of the existing old coast protection stepped wall, which was constructed in 60s, and instead arranging protection wall with the length of 1900 meters and improvement of the boulevard site in the coastline of Kobuleti City.

The foundation slab of coast protection stepped concrete wall will be arranged at the mark of 2,5 meters, whereas the mark of its ridge will be 6,8 m. The wall will have the coast protecting and retaining function at the same time. Coast protection wall will be built as the sections of 10 meters long. The wall will be built out of hydro-technical concrete. The steps will be arranged on preliminarily prepared and lined surface of 33⁰-40⁰ gradients. There will be constructed concrete parapet of 45 cm width and 60 cm height on wave reflecting unit. There will be arranged the 6-meter line of the boulevard behind the wall which is to be lined with concrete slabs. Alongside the boulevard there will be arranged the lighting poles of 15 m spacing. Descents from the boulevard into the beach will be arranged per 100 meters.

Furthermore, the SP includes rehabilitation works of the boulevard. There will be 6 cm thick sand-cement tiles applied, and outdoor lightning will be also arranged in the boulevard.

The SP has been prepared by LEPL National Environmental Agency of the Ministry of Environment and Natural Resources Protection of Georgia.

Environmental Screening

(A) IMPACT IDENTIFICATION

Has sub-project a tangible impact on the environment?	The SP has a modest short-term negative environmental impact while its long term impact is expected to be positive.
What are the significant beneficial and adverse environmental effects of sub-project?	<p>The expected negative environmental impacts are likely to be short term and typical for small to medium scale rehabilitation works in urban landscape: noise, dust, vibration, and emissions from the operation of construction machinery; generation of construction waste; disruption of traffic on Aghmashenebli street and pedestrian access.</p> <p>Within SP, inert construction waste is expected to be originated as a result of demolition of the existing amortized structures which are to</p>

	<p>be transported to the Choloki landfill site designated by Kobuleti Municipality.</p> <p>The SP implementation will require 19 250 m³ of stone, 1166 m³ of gravel, concrete blocks. Intense traffic of heavy vehicle means transporting referenced material along with the wastes will be disturbing factor for local residents and tourists as well.</p> <p>Making of concrete blocks will increase the risk of air pollution.</p> <p>Hazardous waste will be generated due to the demolition of old asbestos-containing fence fragments along the boulevard to be rehabilitated.</p> <p>During the SP implementation, there will be the risk of damaging the pine plants being on the site.</p> <p>Reconstruction of the sea wall will significantly reduce the risk of coastline erosion.</p>
<p>May the sub-project have any significant impact on the local communities and other affected people?</p>	<p>The SP will have a long-term positive social impact through providing long-term sustainability of the Kobuleti Beach ensuring its recreational value and touristic attraction.</p> <p>As a result of the SP implementation, the descents to the beaches and a boulevard will be provided and surroundings for the holidaymakers will be improved. This will be beneficial for the development of Kobuleti resort zone.</p> <p>No land take and relocation are expected.</p> <p>Negative impacts are short term and limited to the construction site. They are related to the possible disturbance described above.</p>

(B) MITIGATION MEASURES

<p>Were there any alternatives to the sub-project design considered?</p>	<p>Sea wall was designed similarly to the existing coast protecting stepped wall, which was built in the 60-ies of the previous century in Southern part of Kobuleti City, aimed at avoiding progressive erosion of the sea coastline.</p> <p>In case the existing sea wall is not replaced with the new one, wave breakers of various modifications will be required to be built in order to maintain the beach, what would have had more impact on environment and will be undesirable construction with regard to recreational beach.</p>
<p>What types of mitigation measures are proposed?</p>	<p>The expected negative impacts of the construction phase can be easily mitigated. The contractor will be responsible for the waste disposal at the permitted location, obtaining natural construction materials from the licensed quarries only, preventing water and soil from pollution (fuel spills due to equipment failure, raw asphalt/concrete spills), avoiding disturbance of population (noise, dust, emissions) through proper work/supplies scheduling, traffic management, and good maintenance of the construction machinery.</p> <p>Inert construction waste will be located on the land plot allocated by Governmental Unit (Gamageoba) of Kobuleti, which is about 2 km far from the SP site.</p> <p>Asbestos-containing waste shall be removed and disposed on the nearest municipal landfill (Choloki landfill) in accordance with the Ordinance of the Government of Georgia N145 of March 29, 2016 on Special Technical Requirements of Hazardous Waste Collection and Processing.</p> <p>All staff will be strictly prohibited from logging or other damaging activities along the construction territory. Large trees of pine along the boulevard will be protected from cutting or unintentional damage by marking and cordoning off with fencing, their root system protected and any damage to the trees avoided.</p> <p>In order to avoid pollution of the resort zone, concrete will not be produced on SP site. There will be arranged the stationary unit out of which concrete mix will be transported.</p> <p>Woks will be suspended during resort season temporarily to avoid disturbance of the tourists.</p>

	In the process of the SP implementation there will be arranged temporal descents into the beach.
What lessons from the previous similar projects have been incorporated into the sub-project design?	<p>The SP is prepared by LEPL – National Environmental Agency of the Ministry of Environment and Natural Resources Protection of Georgia.</p> <p>In the process of design of the sea wall there were considered the conditions as follows:</p> <ul style="list-style-type: none"> - The wall is not significantly loaded by the side of the slope; - The upper mark of the structure with an inclined surface is defined above the upper threshold of storm wave’s rolling up; - Aimed at draining the water, penetrated on internal side of the wall because of sprinkling, wall will be arranged on the stone fill. <p>The sea wall is to be built out of hydro-technical concrete.</p>
Have concerned communities been involved and have their interests and knowledge been adequately taken into consideration in sub-project preparation?	<p>The SP has been developed in consultation with the affected communities and as a response to the current situation.</p> <p>Local population is informed about scheduled rehabilitation works and has no claim on related disturbances.</p> <p>Draft EMP will be disclosed on the web site of MDF. Hard copies of the document will be made available at the MDF and Kobuleti Municipality.</p> <p>MDF and local municipality will organize consultation meeting with the local population to discuss the draft EMP prior to tending of works.</p>

(C) RANKING

The project has been classified as environmental Category B according to the World Bank safeguards (OP 4.01) and requires Completion of the Environmental Management Checklist for Small Construction and Rehabilitation Activities.

Social Screening

Social safeguards screening information		Yes	No
1	Is the information related to the affiliation, ownership and land use status of the sub-project site available and verifiable? (The screening cannot be completed until this is available)	√	
2	Will the sub-project reduce people's access to their economic resources, such as land, pasture, water, public services, sites of common public use or other resources that they depend on?		√
3	Will the sub-project result in resettlement of individuals or families or require the acquisition of land (public or private, temporarily or permanently) for its development?		√
4	Will the sub-project result in the temporary or permanent loss of crops, fruit trees and Household infrastructure (such as ancillary facilities, fence, canal, granaries, outside toilets and kitchens, etc.)?		√
If answer to any above question (except question 1) is "Yes", then OP/BP 4.12 Involuntary Resettlement is applicable and mitigation measures should follow this OP/BP 4.12 and the Resettlement Policy Framework			

The site, on which the sea wall is considered to be arranged along with the boulevard, is registered as the Municipal property. Out of the referenced site 150,0 sq. m was leased in 2012 for arranging of prefabricated Café of modern type of light structure. According to the information from the LSG, the PAP was offered an alternative site, instead of the affected one, thus, currently the above-mentioned lease agreement is no longer in force.

PART A: GENERAL PROJECT AND SITE INFORMATION

INSTITUTIONAL & ADMINISTRATIVE			
Country	Georgia		
Project title	Second Regional and Municipal Infrastructure Development (RMIDP 2)		
Sub-Project title	Kobuleti Seawall Rehabilitation		
Scope of site-specific activity	<p>The Sub-project (SP) envisages dismantling of the existing old coast protection stepped wall, which was constructed in 60s, and instead arranging protection wall with the length of 1900 meters and improvement of the boulevard site in the coastline of Kobuleti City. The foundation slab of coast protection stepped concrete wall will be arranged at the mark of 2,5 meters, whereas the mark of its ridge will be 6,8 m. The wall will have the coast protecting and retaining function at the same time. Coast protection wall will be built as the sections of 10 meters long. The wall will be built out of hydro-technical concrete. The steps will be arranged on preliminarily prepared and lined surface of 330-400 gradients. There will be constructed concrete parapet of 45 cm width and 60 cm height on wave reflecting unit. There will be arranged the 6-meter line of the boulevard behind the wall which is to be lined with concrete slabs. Alongside the boulevard there will be arranged the lighting poles of 15 m spacing. Descents from the boulevard into the beach will be arranged per 100 meters.</p> <p>Furthermore, the SP includes rehabilitation works of the boulevard. There will be 6 cm thick sand-cement tiles applied, and outdoor lightning will be also arranged in the boulevard.</p> <p>The SP has been prepared by LEPL National Environmental Agency of the Ministry of Environment and Natural Resources Protection of Georgia.</p>		
Institutional arrangements (WB)	Task Team Leader: Xiaolan Wang		Safeguards Specialists: Darejan Kapanadze, Environment Rebecca Lacroix, Social
Implementation arrangements (Borrower)	Implementing entity: Municipal Development Fund of Georgia	Works supervisor: Consulting company Eptisa Servicios de Ingenieria S.L. Spain	Works contractor: (tbd)
SITE DESCRIPTION			
Name of institution whose premises are to be rehabilitated	Kobuleti Municipality		

Address and site location of institution whose premises are to be rehabilitated	141, Aghmashenebeli Avenue, 6200, Kobuleti. Tel: +995(426) 6-72-09 E-mail: gamgeoba@kobuleti.org.ge
Who owns the land? Who uses the land (formal/informal)?	Municipal property
Description of physical and natural environment around the site	<p>Kobuleti coastline is northern last point of Rv. Chorokhi's lithodimanic system. In the past, due to heave of the sea from the West, river Chorokhi silt was transferring 50 km North, silt was reaching mouth of river Natanebi and was creating wide beaches. In second part of 19 century creation of Batumi cape as well as port construction blocked beach creating material movement along the coastline, which resulted in the intensive washouts of Makhinjauri –Kobuleti coastline. In 60's coastline protection stepped wall was constructed, and in 1981-199 and further in 2007 inert material was delivered at Kobuleti beaches. In 2007-2011 beach conditions were as follows: South part of the beach was reduced with 2-3 m. and from North (approx. 1km) beach was increased with 4-6 m.</p> <p>Currently, along the beach on certain sections where sea wall has to be arranged different type partially or entirely defected coast protecting structures are situated. Demolition of old amortized walls is foreseen during construction of new sea wall.</p> <p>Town Kobuleti coastline composition including geology is homogenous, alluvial fractions, pebble and sand are distributed.</p> <p>Most hot season in Kobuleti is summer (July, August) and most cold is winter (January-February); annual average air temperature +13,4⁰C minimum -9⁰C-6, maximum +40⁰C-, the wind is of monsoon mode, in summer air flow from sea is humid and chilly and in winter warm and dry. Average wind annual velocity varies up to 1,1-2,6 m/sec.</p> <p>West direction of heavy sea wave is 91.6 %, North-West -7.2% and South-West 1.2%. Storm season is winter, return of waves with height of more than 2 m reaches 30 %. In summer this data reduces up to 5-13%. There were several heavy storm events in summer and spring, when wave height reached 7-8 m. within coastline zone storm wave power reaches maximum in February, further decreases and minimum arrives in May- Jun- Jul. Second maximum pic is in October-November.</p>

	<p>The area to be arranged with sea wall from East is bordered with Kobuleti pine-tree park. Pine trees are planted at several section of King Tamar beach as well, where boulevard arrangement is planned.</p> <p>Currently there are amortized buildings on the territory nearby the SP site, including former hotel Kolkheti, temporary seasonal structures such as kiosks, residential building, as well as building of rescuers office of emergency situations management agency.</p> <p>SP envisages demolishing of old asbestos-containing fence remains along the boulevard to be rehabilitated.</p>
<p>Locations and distance for material sourcing, especially aggregates, water, stones?</p>	<p>Water will be available at the construction site from the municipal water supply system.</p> <p>Nearest licensed borrow pit is located on the right bank of river Natanebi (approximately 5 km).</p>
LEGISLATION	
<p>National & local legislation & permits that apply to project activity</p>	<p>The SP has been classified as low risk Category B according to the World Bank policies and the ESMF.</p> <p>Kobuleti municipal authority approved the SP.</p> <p>Georgian legislation does not require any type of environmental review, approval, or permitting for the SP. Though according to the national regulatory system:</p> <ul style="list-style-type: none"> (i) construction materials must be obtained from licensed providers, (ii) if contractor wishes to open quarries or extract material from river bed (rather than purchasing these materials from other providers), then the contractor must obtain licenses for extraction, (iii) if contractor wishes to operate own concrete plant (rather than purchasing these materials from other providers), then the contractor must submit and agree technical report on inventory of atmospheric air pollution stationary source with Ministry of Environment and Natural Resources Protection. (iv) Inert construction waste generated in the course of demolition works shall be disposed at the territory allocated by Kobuleti Municipal Authority based on the written agreement between works contractor and Kobuleti Municipal Authority; (v) Asbestos-containing waste must be removed and disposed on the nearest municipal landfill (Choloki

	<p>landfill) in accordance with the Ordinance of the Government of Georgia N145 of March 29, 2016 on Special Technical Requirements of Hazardous Waste Collection and Processing.</p> <p>(vi) If over 200 tons of non-hazardous waste or over 1000 tons of inert materials or more than 120 kg of hazardous waste is generated annually (calculation apply to a calendar year) as a result of contractor's general activities, they shall prepare and cause the Ministry of Environment and Natural Resources of Georgia to approve the inventarisation of Waste and Waste Management Plan for the Company, appoint an environmental manager, and submit an information on his/her identity to the Ministry of Environment and Natural Resources Protection of Georgia in accordance with requirements of the Waste Code of Georgia.</p> <p>GOST and SNIP norms must be adhered.</p>
PUBLIC CONSULTATION	
When / where the public consultation process will take /took place	MDF and local municipality will organize consultation meeting with the local population to discuss the draft EMP prior to tending of rehabilitation works.
ATTACHMENTS	
<p>Attachment 1: Site map and pictures</p> <p>Attachment 2: Record on public consultation (to be provided)</p> <p>Attachment 3: Licenses, permits, agreements (to be provided)</p>	

PART B: SAFEGUARDS INFORMATION

ENVIRONMENTAL /SOCIAL SCREENING			
	Activity/Issue	Status	Triggered Actions
Will the site activity include/involve any of the following?	A. Building rehabilitation	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	See Section A below
	B. New construction	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	See Section A below
	C. Individual wastewater treatment system	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	See Section B below
	D. Historic building(s) and districts	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	See Section C below
	E. Acquisition of land ¹	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	See Section D below
	F. Hazardous or toxic materials ²	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	See Section E below
	G. Impacts on forests and/or protected areas	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	See Section F below
	H. Handling / management of medical waste	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	See Section G below
	I. Traffic and Pedestrian Safety	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	See Section H below

¹ Land acquisitions includes displacement of people, change of livelihood encroachment on private property this is to land that is purchased/transferred and affects people who are living and/or squatters and/or operate a business (kiosks) on land that is being acquired.

² Toxic / hazardous material includes but is not limited to asbestos, toxic paints, noxious solvents, removal of lead paint, etc.

PART C: MITIGATION MEASURES

ACTIVITY	PARAMETER	MITIGATION MEASURES CHECKLIST
O. General Conditions	Notification and Worker Safety	<ul style="list-style-type: none"> (a) The local construction and environment inspectorates and communities have been notified of upcoming activities (b) The public has been notified of the works through appropriate notification in the media and/or at publicly accessible sites (including the site of the works) (c) All legally required permits have been acquired for construction and/or rehabilitation (d) The Contractor formally agrees that all work will be carried out in a safe and disciplined manner designed to minimize impacts on neighboring residents and environment. (e) Workers' PPE will comply with international good practice (always hardhats, as needed masks and safety glasses, harnesses and safety boots) (f) Appropriate signposting of the sites will inform workers of key rules and regulations to follow.
A. General Rehabilitation and /or Construction Activities	Air Quality	<ul style="list-style-type: none"> (a) Keep demolition debris in controlled area and sprayed with water mist to reduce debris dust (b) Control during pneumatic drilling/wall destruction dust by ongoing water spraying and/or installing dust screen enclosures at site (c) Keep the surrounding environment (sidewalks, roads) free of debris to minimize dust (d) There will be no open burning of construction / waste material at the site (e) There will be no excessive idling of construction vehicles at sites (f) Confine truck loads with lining.
	Noise	<ul style="list-style-type: none"> (a) Limit construction noise to restricted times agreed to in the permit (b) During operations the engine covers of generators, air compressors and other powered mechanical equipment shall be closed, and equipment placed as far away from residential areas as possible (c) Move machinery only along the preliminarily agreed route; (d) Restrict maximum allowed speed; (e) Apply proper technical control and maintenance practices of machinery; (f) Disallow no-load operations of the vehicles and heavy machinery. Use proper mufflers on machinery.
	Water Quality	<ul style="list-style-type: none"> (a) Organize and cover material storage areas. The material storage sites should be protected from washing out during heavy rain falls and flooding through covering by impermeable materials. Appropriate erosion and sediment control measures will be established such as e.g. hay bales and / or silt fences to prevent sediment from moving off site and causing excessive turbidity in nearby streams and rivers; (b) Plan all excavations, topsoil and subsoil storage so as to reduce to a minimum any runoff; (c) Maintain good technical condition of construction vehicles and machinery to ensure that there is no leakage of fuel and lubricating materials. Undertake daily plant checks (Vehicle Maintenance Procedure) to ensure no leaks or other problems are apparent. Vehicle maintenance, cleaning, degreasing etc. will be undertaken

		<p>in designated areas, of hard-standing, not over made ground. Maintenance points will not be located within 50m of any watercourse;</p> <p>(d) Store and use lubricants, fuel and solvents for servicing machinery exclusively in the designated sites, with adequate lining of the ground and confinement of possible operation and emergency spills. Spill containment materials (sorbents, sand, sawing, chips etc.) should be available on construction site;</p> <p>(e) Prevent wet cement and/or concrete from entering any watercourse, pond or ditch.</p> <p>(f) Works on the beach. Ensure proper handling of construction materials, oil and lubricants to avoid any spillage or dumping of them on the beach. Storage of potentially polluting materials within 50 m of beach is prohibited. Dumping of waste on the beach is prohibited.</p>
	Waste management	<p>(a) Identify waste collection and disposal pathways and sites for all major waste types expected from demolition and construction activities.</p> <p>(b) Non-hazardous construction waste will be separated from general refuse, organic, liquid and chemical wastes by on-site sorting and disposed on the site allocated by Kobuleti Municipal Authority;</p> <p>(c) Maintain the records of waste disposal as proof for proper management as designed;</p> <p>(d) Whenever feasible, reuse and recycle appropriate and viable materials (except asbestos).</p>
	Material supply	<p>a) Use existing plants, quarries or borrow pits that have appropriate official approval or valid operating license.</p> <p>b) Obtain licenses for any new quarries and/or borrowing areas if their operation is required;</p> <p>c) Reinstate used sections of quarries and/or borrowing areas as extraction proceeds on or properly close quarries if extraction completed and license expired;</p> <p>d) Haul materials in off-peak traffic hours;</p> <p>e) Place speed regulating, diverting, and warning signs for traffic as appropriate.</p> <p>f) Submit to the MDF copies of the licenses, permits, written agreements, certificates, etc. to prove that all materials are obtained from licensed providers.</p>
	Vegetation Protection	<p>(a) Protect Large trees along the boulevard from cutting or unintentional damage; All large trees shall be marked and cordoned off with fencing, their root system protected, and any damage to the trees avoided;</p> <p>b) Disallow waste dumping in the area adjacent to the park.</p>
E. Toxic Materials	Asbestos management	<p>(a) asbestos located on the SP site shall be marked clearly as hazardous material;</p> <p>(b) asbestos will be appropriately contained and sealed with two different plastic covers to minimize exposure;</p> <p>(c) The asbestos prior to removal will be treated with a wetting agent to minimize asbestos dust;</p> <p>(d) Asbestos will be handled and disposed by skilled & experienced professionals equipped with special PPE. The equipment must be treated the same way hazardous waste;</p> <p>(e) If asbestos material is stored temporarily, the wastes should be securely enclosed inside closed containments and marked appropriately. Security measures will be taken against unauthorized removal from the site.</p> <p>(f) The removed asbestos must not be reused;</p> <p>(g) Transportation of asbestos-containing waste</p>

		(h) The asbestos-containing waste will be disposed at the official Choloki landfill in accordance with Rules and Norms for the Arrangement and Operation of Solid Waste Landfills (Governmental Decree # 421, August 11, 2015).
H Traffic and Pedestrian Safety	Direct or indirect hazards to public traffic and pedestrians by construction activities	<p>(a) In compliance with national regulations, ensure that the construction site is properly secured and construction related traffic regulated. This includes but is not limited to</p> <ul style="list-style-type: none"> ▪ Signposting, warning signs, barriers and traffic diversions: site will be clearly visible and the public warned of all potential hazards ▪ Traffic management system and staff training, especially for site access and near-site heavy traffic. Provision of safe passages and crossings for pedestrians where construction traffic interferes. ▪ Adjustment of working hours to local traffic patterns, e.g. avoiding major transport activities during rush hours or times of livestock movement ▪ Active traffic management by trained and visible staff at the site, if required for safe and convenient passage for the public. ▪ Ensuring safe and continuous access to office facilities, shops and residences during renovation activities, if the buildings stay open for the public. ▪ Arrange speed bumps to reduce vehicle speed and appropriate signs (road narrows/mind pedestrians) in agreement with local traffic police.

PART D: MONITORING PLAN

Activity	What (Is the parameter to be monitored?)	Where (Is the parameter to be monitored?)	How (Is the parameter to be monitored?)	When (Define the frequency / or continuous?)	Why (Is the parameter being monitored?)	Who (Is responsible for monitoring?)
CONSTRUCTION PHASE						
Supply with construction materials	Purchase of construction materials from the officially registered suppliers	In the supplier's office or warehouse	Verification of documents	During conclusion of the supply contracts	To ensure technical reliability and safety of infrastructure	MDF, Construction supervisor

<p>Transportation of construction materials and waste</p> <p>Movement of construction machinery</p>	<p>Technical condition of vehicles and machinery;</p> <p>Confinement and protection of truck loads with lining;</p> <p>Respect of the established hours and routes of transportation</p>	<p>Construction site</p>	<p>Inspection</p>	<p>Unannounced inspections during work hours and beyond</p>	<p>Limit pollution of soil and air from emissions;</p> <p>Limit nuisance to local communities from noise and vibration;</p> <p>Minimize traffic disruption.</p>	<p>MDF,</p> <p>Construction supervisor,</p> <p>Traffic Police</p>
<p>Sourcing of inert material</p>	<p>Purchase of material from the existing suppliers if feasible;</p> <p>Obtaining of extraction license by the works contract and strict compliance with the license conditions;</p> <p>Terracing of the borrow area, backfilling to the exploited areas of the borrow site, and landscape harmonization;</p> <p>Excavation of river gravel and sand from outside of the water stream, arrangement of protective barriers of gravel between excavation area and the water stream, and no entry of machinery into the water stream.</p>	<p>Borrowing areas</p>	<p>Inspection of documents</p> <p>Inspection of works</p>	<p>In the course of material extraction</p>	<p>Limiting erosion of slopes and degradation of ecosystems and landscapes;</p> <p>Limiting erosion of riverbanks, water pollution with suspended particles and disruption of aquatic life.</p>	<p>MDF,</p> <p>Construction supervisor</p>

Generation of construction waste	Temporary storage of construction waste in especially allocated areas; Timely disposal of waste to the formally designated locations	Construction site; Waste disposal site	Inspection	Periodically during construction and upon complaints	Prevent pollution of the construction site and nearby area with solid waste	MDF, Construction supervisor
Traffic disruption and limitation of pedestrian access	Installation of traffic limitation/diversion signage; Storage of construction materials and temporary placement of construction waste in a way preventing congestion of access roads	At and around the construction site	Inspection	In the course of construction works	Prevent traffic accidents; Limit nuisance to local residents	MDF, Construction supervisor
Asbestos management	Asbestos located on the SP site is appropriately contained and marked clearly as hazardous material; Asbestos is handled and disposed by skilled & experienced professionals equipped with special PPE Security measures are taken against unauthorized removal from the site. The dismantled asbestos pipes are disposed on official Choloki landfill.	At construction site	Inspection of documents Inspection of works	In the course of demolition works	Prevent pollution by toxic materials To protect workers' health	MDF, Construction supervisor
Protection of vegetation and landscape	Large trees along the beach are marked and cordoned off with fencing and	At construction site along the beach	Inspection	Periodically during construction and upon complaints	Protection of adjacent landscapes and vegetation,	MDF, Construction supervisor

	protected from cutting or unintentional damage. Beach and park in the immediate vicinity of the activity is not damaged or exploited.				especially Red listed species.	
Workers' health and safety	Provision of uniforms and safety gear to workers; Informing of workers and personnel on the personal safety rules and instructions for operating machinery/equipment, and strict compliance with these rules/instructions	Construction site	Inspection	Unannounced inspections in the course of work	Limit occurrence of on-the-job accidents and emergencies	MDF, Construction supervisor
OPERATION PHASE						
Maintenance of rehabilitated sea wall and boulevard	Trash bins are provided on site and arrangement in place for timely regular out-transporting of waste Demarcation of the sections of wall under repair; Disposal of construction waste from the repair works to the designated landfill.	Rehabilitated sections of sea wall and boulevard	Inspection	During maintenance works	Pollution of beach and boulevard with solid waste	Kobuleti municipality

Attachment 1. Map and pictures









Attachment 2: Documents of public consultation (to be provided)

Attachment 3: Licenses, permits, agreements (to be provided)