

# Coastal Protection Batumi



# Community Health and Safety Plan for opening the Beach during Summer Season 2019

(Final 2)

# Coastal Protection Batumi

Contract No: P42414-SUTIP4-ICB-01-2016 and Amendment #2

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# 1. Project Description

Batumi is the capital of Autonomous Republic and one of the major cities on the Georgian Black Sea coast playing a significant role in economic, cultural and tourist development of the Country. Coastal improvement is one of the priorities among other infrastructural projects which will facilitate the future development of the City and region.

The detailed design of the revetment has been started on 2015 following the studies that have been necessary to carry on shifting from a "rigid" solution with groins to a flexible solution mainly based on beach nourishment. After a long process the solution has been approved on 2016. The detailed design was based on the bathymetry dated 2014 after checking that when the detailed design had started, not unexpected changes were occurred since that survey.

In the next two years the situation has changed sharply and with intensity that has been completely different form the experience of the last 15 years.

On May 2017, based on a specific order by MDF, Technital has presented a report on this extraordinary erosion trying to explain it and proposing the solution to adapt the revetment sections.

The Environmental Category of the proposed Batumi Coastal Protection Project is B (ADB's Safeguard Policy Statement, 2009); infrastructures under category B are foreseen not having significant irreversible or permanent negative environmental impacts during or after construction.

The main objective of the proposed project is to protect the Batumi coast against erosion. The coastline southwest of Batumi is affected by erosion over a length of about 5 km. along this section a number of houses and cultivated land has been lost already in the past. Without adequate protection measures coastal erosion will continue at the airport area and might even affect the beaches and the coastline of Batumi. The evaluation of the alternatives to protect the coast against the erosion affecting the southern section of the littoral has shown that a soft intervention, featuring recirculation of the sediment between the northern section of the littoral (where it accumulates due to natural transport pattern) and the southern portion (from where it is removed due to erosion), is the most efficient way to protect and restore the beach.

To execute these coastal protection measures the Municipal Development Fund (MDF) has contracted the Struijk Group Georgia Branch (Struijk). The construction contract between MDF and Struijk was signed on November the 15<sup>th</sup>, 2016 and has an estimated duration of 20 up to 34 months. Project is already started on February 2017.

Project participants are: Client is "Municipal Development Fund" of Georgia – (MDF), Consulting, Engineering and Design is "Technital" & "Saunders Group" (Engineers) and Contractor is "Struijk Group Georgia Branch".

### 2. Introduction

During the projects implementation several issues, related to the environmental and socials safeguards and disputes on entitlement processes', might be occur due to the Projects activities. For example, intensive schedule of construction activities, inappropriate timing of construction vehicle flow, waste, noise and air pollution from construction activities, ecological disturbances, cultural conflicts between migrant workers, are some of the environmental and social safeguard issues that are likely to be raised from the Project activities.

In order to provide a direct channel to the affected persons for approaching project authorities and have their grievance recorded and redressed in an appropriate time frame, Grievance Redress Mechanism was established with efforts of MDF within the project.

Complaints' registration journal is created and available at construction site. The copy of journal with mobile numbers of relevant persons Grievance Focal Pointes - Social Manager of CC Maia Khandurdieva and local residents Kakhaber Beridze and Zeinab Tsintsadze are placed at local Municipality as well. Complaints' from the people, regarding the environmental safeguard issues in case of their disturbance and inconvenience, because of improper or inadequate implementation of SSEMP, can be accepted in both places. In case of having Complaints', they will be registered in database system, assigning compliant number with date of receipt. Complaints' will be investigated and complainant will be informed about time frame in which the corrective action will be undertaken, in case if the raised problem is realistic.

In some cases resolution of grievances that fall under direct responsibility of Contractor (CC) can be effectively addressed at level of CC and Supervision Consultant (SC), without involvement of MDF or latterly the ADB.

Grievances to be handled at the level of CC or SC include:

- Social concerns related to contractor activity;
- Environmental management;
- Community safety.

MDF, as EA, facilitates the grievance resolution by implementing a project-specific Grievance Redress Process (GRP). It will deliver grievances to relevant authorities, in case if such grievances are sent to MDF. The official administrative bodies are obliged to respond to the grievances that have been received from population or other interested parties in accordance with the requirements of the General Administrative Code of Georgia.

For effective implementation of grievance redress mechanism (GRM), every month Stakeholders Engagement Meetings are held at project area with participation of GFPs The (General Factor of Personality) and CC and SC staff. During the meetings several different issues are being discussed and considered by participants; Particular interest was expressed from local residents about the project activities during the summer season. They have emphasized the importance to have beach access open during the summer season.

Some activities will be carried out during summer season 2019 section by section on the opened boulevard: Preparation works for poured the concrete, compacting the gravel, backfill the topsoil in the trench. Periodically, one section of the boulevard will be close for construction works but this will not prohibit the access for locals/tourists to the beach, as they can access from the next entrance. CC appointed Mamuka Shaorshadze at the position of Health and Safety Manager for the projects. Health- and Safety Manager is responsible to prepare the necessary Health- and Safety documentation for the project, conduct H&S trainings, conduct H&S Toolbox Talks on daily basis, conduct H&S Site induction for new employees or site visitors, Prepare H&S Monthly Reports, investigate any incident or near misses and providing records to Supervision Consultant and PIU, investigate any incident and prepare Incident Investigation Report with mitigation measures to avoid recurrence, filling H&S Checklists regularly, monitoring work activities on daily basis to ensure compliance with Health and Safety Regulations.

ADB mission requested CC in coordination with PIU/MDF to develop a method statement and community health and safety plan to deal with construction works during the summer months.

#### 3. Scope

The purpose of this plan is to provide the information and method by which community and tourists health and safety will be ensured, during an open beach section in summer; Also, plan will provide information regarding the existing risks and measures which should be taken to deal with those risks and take all the necessary precautions to provide a safe opened section.

# 4. Risk analysis during preparation activities and summer season

Activities	Identification of risk	Risk level	Measures taken	Risk after mitigation	Responsible person
Violation of site boundaries	The risk to come to close to the equipment or actual working activities area which is dangerous	High	Sloped sides of the access to the beach will be barricaded by fences to separate access to the beach from the site territory; The side fences will be provided with appropriate warning and prohibition signs to inform locals and tourists regarding the existing risks and prohibited actions or regarding any hazardous information;  Regular monitoring for site boundaries will be done by Health and Safety Manager to ensure that tourists or locals from the opened section will not cross the site boundaries and prevent them from entering the site where actual working activities takes place	Medium	Site Manager  QHSE Manager
Swimming near the edge of the opened section boundaries	Risk of going to the site from the opened section where actual works take place through the sea by swimmers as site boundaries may be overlooked during swimming	Medium	Marker Buoys will be provided in the sea at the edges of the opened section lines to mark the opened area in the sea to indicate the permissible area which can be used for swimming in consultation with the Hydrographic Service of Georgia	Low	Site Manager  QHSE Manager
Excavation works for opening beach preparation	Risk of possibility of pollution of the beach due to the failure of heavy equipment or work activities	Low	Contractor uses only equipment which is checked and is in good working order; provide oil spill response equipment (pads and booms) on the site and for the heavy equipment as well. Also, Heavy Equipment Inspection Checklist will be done on daily basis; all employees are trained in any environmental emergency situation	Low	QHSE Manager Site Manager
Dust	Dust emissions	Medium	<ul> <li>Visual control;</li> <li>Technical check-up of machinery;</li> <li>Periodically water down excess roads on site;</li> <li>Wet or cover trucks carrying construction material;</li> <li>Halting work during excessive onshore winds;</li> <li>Immediately replacing defective equipment and removing it from the work site;</li> <li>If necessary, use of temporary barriers along main road corridors when sensitive (C).</li> </ul>	Low	QHSE Manager Site Manager
Noise	Noise emissions	Medium	<ul> <li>Visual control;</li> <li>Measuring;</li> <li>Technical check-up of machinery;</li> <li>Require adherence to engine maintenance schedules and standards to reduce noise;</li> <li>Use of defined, well planned haulage routes and reductions in vehicle speed where required;</li> <li>Immediately replacing defective equipment and removing it from the work site (C).</li> </ul>	Low	QHSE Manager Site Manager

Working process section by section during summer season (preparation rebar, concrete works and backfill of topsoil)	Unauthorized access for third person on site (Tourists/Local residents)	Medium	<ul> <li>Visual control;</li> <li>Barricading with metal fences section by section (150 m);</li> <li>Special safety signs will be installed: (construction work in progress. No admittance for unauthorized personnel; Closed during the night from 21:00 till 07:00; Beach Entrance directions; Do not climb on the rocks for your safety.)</li> <li>Safety signs will be installed every entrance (stairs) to the beach;</li> <li>At night time from 21:00 till 07:00 the all accesses will be closed;</li> <li>The construction contractor will provide one security which will responsible to close and open temporary fences at accesses of the entrances to the beach area</li> </ul>	Low	QHSE Manager Social Manager
Working during summer season	Rising concerns regarding the touristic business from local population during summer season due to the lack of information and interference of the work activities and their business	Medium	Before the opening of the beach section, Informational meeting will be conducted in the most convenient place for local residents and stakeholders to held presentation, regarding Health and Safety issues during Summer period	Low	QHSE Manager Social Manager

# 5. Operative Prescription for Contractor, Client, Engineers and Municipality

Contractor: Contractor is responsible for the preparation works for the opening beach, namely cleaning the area from the demolished concrete and sharp irons, providing proper slope for the beach, making proper marking of opening section boundaries, installing safety signs on the side fences, appointing flagmen to arrange traffic management at sections where trucks and pedestrian crossing point cross each other, providing buffer zone between the opened section and site where actual works takes place, etc. Contractor will prepare Power Point Presentation for public review and discussion for local municipality and stakeholders. Contractor is responsible to prepare Community Health and Safety plan and submit the document to Client (MDF). Contractor is only responsible for the activities which takes place in the Working Area and which may have impact on the safety of the people on the opened beach.

The construction contractor "Struijk Group Georgia" will provide one security, which will be responsible to close and open temporary fences (from 07:00am to 09:00pm) at accesses of the entrances to the beach area. Temporary open area for summer season 2019 will be monitored several times during the night by the security.

Four guards will protect the opened area in order to prevent the locals/tourists penetration to working territory.

The local municipality will be responsible for the safe management of the area once opened (as in general at other beach areas along the costal line) during the summer season, as opened project section during that time will be functioning as a beach under the responsibility of the local

municipality.

LEPL Emergency Management Agency will provide 4 (four) lifeguards. Two of them will be on the mobile towers and control any incident during swimming in the water. Their working period will be from 09:00am to 09:00pm. In addition, LEPL Emergency Management Agency will provide one water scooter for controlling the tourists and locals on daily bases (from 07:00am to 09:00pm) in the water during swimming period. Lifeguards will control the opened section (750m) from 07:00 am to 09:00 pm. The buoys will be provided by LEPL Emergency Management Agency as agreed by law of regulations of Georgian.

Batumi Cleaning Service will be responsible for sanitary surveillance to ensure that any waste produced at the opening section will be disposed to the municipal landfill according to Georgian legislation.

#### 6. Locations and duration:

Period from 15/06/2019 until 30/09/2019	From Channel:	To Channel:
Beach opening area	Ch.1.030	Ch.2.000
Buffer zone	Ch.0.980	Ch.1.030
Project area. Work activities in this area	Ch.980	Ch.0.250

#### - Beach Opening Areas:

These areas are available for public.

- Buffer Zone:

This area belongs to the project area. We will create this area to ensure a safe area between the beach opening area and the working area.

- Project Area. Work activities in this Area:

The activities will be conducted in this Area.

#### 7. Work activities

In the working area, the following activities will be conducted:

- Supply and placement rocks on the Beach [Ch-0,980 Ch-0,000];
- General excavation and transportation to storage area;
- Backfilling revetment;

- Reinforced concrete Crown-wall and beach accesses;
- Repairing works concrete Crown-wall and beach accesses;
- Earthwork and foundation for realization revised Boulevard;
- Concrete works revised Boulevard;
- Chorockhi River investigation;
- Conducting Health and Safety Toolbox;
- Monitoring activities; Site inspections.

For the opening of the beach there is no quantitative extension of the contract work activities and has no influence on Contractor's time schedule.

# 8. Workforce

Position	Quantity
Site Manager	1
Health and Safety and Environmental Manager	1
Civil Engineer	1
Social Manager	1
Surveyors	2
Excavator Operators/ Crawler Operators	5
Security/ only night shift	1
Wheel Loader Operator	1
Grader Operator	1
Compactor	1
Concrete Workers	35
Flagmen	3
Total	53

# 9. Equipment resources in the working area

#	Description of technical resources/equipment:	Type, Description:	Units Amount
1	Excavator(s)	40 tons -60 tons	2
2	Excavator(s) with bucket and/or hydraulic demolishing hammer	25 tons - 40 tons	5
3	Bulldozer	Cat D6 or Cat D7 or similar	2
4	Tipper truck	15 m <sup>3</sup> – 20 m <sup>3</sup>	20
5	Wheel loader	Cat 966 or Cat 980 or similar	2

9	Telescopic crane	60 tons	1
10	Generator set	20 kVa	3
11	Concrete mixer	6~9 m <sup>3</sup>	3
12	Concrete Pump	20 m <sup>3</sup> per hour	1
13	Containers	20 feet	5
14	Office containers	20 feet	5
15	Transport Vehicles	Toyota Hi-Lux	3
16	Bathymetry Survey Equipment	V-OFF170010	1
17	GPS system for survey	Trimble SPS985L	1
18	Boat for survey		1
19	Drone – quad copter		1

# 10.Sketches



