



Rehabilitation of Pavement and Storm-water Drain System of Circle Road in Tskaltubo Town sub-project

Environmental Screening and Environmental Management Plan

**WORLD BANK FINANCED
REGIONAL DEVELOPMENT PROJECT (RDP II)**

Tbilisi, Georgia

May, 2014

Environmental Screening and Classification

The sub-project envisages rehabilitation of circular road in the central part of Town Tsklatubo, arrangement of storm water drainage system, pavements and rehabilitation of two bridges. The scope of works includes:

- Rehabilitation of Tskaltubo town's circular road paving (5430 m length, width 8.2 m – 20 m),
- Arrangement of closed-type storm water drainage system (197 m),
- Rehabilitation of pavement (9353 m),
- Rehabilitation of two road bridges #7 and #12,
- Rehabilitation of alley (parking strip) along the circle road (top soiling – 531 m³ and grass seeding 5 805 m²).

Bridge #7 represents the arc type dike (length - 40 m) of vehicle significance. The project envisages installation of reinforced concrete risers for supports of lampions and arranging of decorative illuminators and railings, facing with basalt slabs.

Rehabilitation of the existing bridge #12 (length 14.37, width – 12.21 m) envisages rehabilitation of the asphalt paving; sidewalks and curbs are to be faced with granite. In place of railing there are to be arranged four big and four small reinforced concrete columns with street lighting, which are to be faced with natural stone.

(A) IMPACT IDENTIFICATION

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| Has the subproject a tangible impact on the environment? | The subproject (SP) has tangible positive social impact. |
| What are the significant beneficial and adverse environmental effects of the subproject? | <p>The SP has a long term positive social impact through improving living and transportation conditions of the local population. It will decrease existing nuisance to community, such as dust, emissions, vibration and noise.</p> <p>The expected negative environmental and social 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 and pedestrian access.</p> |
| Does the subproject have any significant potential impact on the local or affected communities? | The circle road and the alley will be rehabilitated within the existing footprint. No extension is planned. Therefore no new land take or other type of resettlement is expected. The long term positive |

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| | <p>socio-economic impact will be beneficial (improvement of local population living conditions and growth of tourist flow, Attraction of private sector investment in tourism infrastructure (hotels, bars, restaurants, shopping, entertainment, etc.). Negative impacts are short term and limited to the construction site. They are related to the possible disturbance described above.</p> |
| <p>What impact has the subproject on the human health?</p> | <p>The long term impact of the improved transportation conditions of the town will be beneficial for the residents and guests of Tskaltubo. Value of respiratory diseases will decrease.</p> <p>Minor negative impacts are related to dust, emissions, noise and vibration during construction period.</p> |

(B) MITIGATION MEASURES

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| <p>What alternatives to the subproject design have been considered and what mitigation measures are proposed?</p> | <p>Given that the SP envisages rehabilitation of the existing infrastructure, no alternatives have been considered.</p> <p>The expected negative impacts of the construction phase can be easily mitigated by demarcation of the construction site, traffic management, good maintenance of the construction machinery, observance of the established working hours, and well organized disposal of waste to the formally agreed sites.</p> |
| <p>What lessons from the previous similar subprojects have been incorporated into the project design?</p> | <p>MDF has considerable experience of implementing medium and large scale road and streets rehabilitation subprojects financed by various Donor Organizations. Based on lessons learned from previous similar projects, design envisages not only rehabilitation of road pavement but also rehabilitation of storm water drainage network, sidewalks, curbs, pedestrian passes, lighting, road marking and other road furniture which increase traffic and pedestrians safety.</p> |
| <p>Have concerned communities been involved and have their interests and knowledge been adequately taken into consideration in subproject preparation?</p> | <p>Tskaltubo population was informed about the upcoming urban regeneration plans in a meeting held in Tskaltubo Governor's office in town</p> |

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| | <p>Tsklatubo(05.06.2012) and generated positive reaction of the beneficiary community.</p> <p>Subproject-specific EMP was made available for Tskaltubo population and, along with EMPs for other SPs in Tskaltubo, was discussed in a consultation meeting on May 28, 2014.</p> |
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(D) CATEGORIZATION AND CONCLUSION

Based on the screening outcomes,

subproject is classified as environmental Category

A ☐

B ☒

C ☐

Conclusion of the environmental screening:

1. Subproject is declined ☐

2. Subproject is accepted ☒

If accepted, and based on risk assessment, subproject preparation requires:

- Completion of the Environmental Management Checklist for Small Construction and Rehabilitation Activities ☒
- Environmental Review, including development of Environmental Management Plan ☐

Risk Assessment of the Subproject

| Sensitive receptors of the Natural and Social Environment around a subproject site | Yes / No? | Significant potential impact / high risk (check) | Low potential impact / low risk (check) |
|---|------------------|---|--|
| Natural Habitats, fragile ecosystems | No | Forests; wetlands; nesting/breeding areas, rest areas for migratory birds, wildlife corridors connecting protected areas, steep slopes, alpine and subalpine zone, green-fields | Strongly transformed urban or rural landscapes, industrial sites, brown-fields |
| | | | √ |
| Surface water bodies | No | Major rivers and river floodplains, trans-boundary water bodies and their tributaries, lakes; smaller water bodies which have high value for local communities or biodiversity | Small rivers and streams, artificial reservoirs and ponds which are not indicated as having high value for local communities or biodiversity |
| | | | √ |
| Groundwater sources | No | Deposits of the regional/national importance, mineral and/or thermal water sources, high groundwater table | Regular groundwater table |
| | | N/A | N/A |
| Valuable landscapes | No | Protected landscapes, landscapes of outstanding aesthetic value, Green-fields, recreational areas | Strongly transformed urban or rural landscapes, industrial sites, brown-fields |
| | | N/A | √ |
| Physical cultural resources | No | Individual or general protection zones of cultural monuments, historical or traditional sites (religious, burial, ritual) | No cultural resources |
| | | N/A | N/A |

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|---|----|---|--|
| Human settlements | No | More than 20 affected households; physical relocation needed | Less than 20 affected households, no physical relocation needed, no land take required |
| | | N/A | N/A |
| Geohazards: severe erosion, landslides, flooding | No | Recorded | Not recorded |
| | | N/A | N/A |
| <p>If a subproject is expected to carry high risk based on any of the above criteria of assessment, it is considered a high risk subproject. An environmental review has to be carried out and an environmental management plan developed;</p> <p>If a subproject is not expected to carry high risk based on any of the above criteria of assessment, it is considered a low risk subproject and an Environmental Management Checklist for Small Construction and Rehabilitation Activities has to be completed.</p> | | | |

Social and Cultural Resource Screening of Subprojects

| Social safeguards screening information | | Yes | No |
|---|---|------------|-----------|
| 1 | Is the information related to the affiliation and ownership status of the subproject site available and verifiable? (The screening cannot be completed until this is available) | ✓ | |
| 2 | Will the project reduce other people's access to their economic resources, such as land, pasture, water, public services or other resources that they depend on? | | ✓ |
| 3 | Will the 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 project result in the temporary or permanent loss of crops, fruit trees and Household infra-structure (such as 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 | | | |
| Cultural resources safeguard screening information | | Yes | No |
| 5 | Will the project require excavation near any historical, archaeological or cultural heritage site? | | ✓ |
| If answer to question 5 is "Yes", then OP/BP 4.11 Physical Cultural Resources is applicable and possible chance finds must be handled in accordance with OP/BP and relevant procedures provided in the Environmental Management Framework . | | | |

Environmental Management Plan (EMP)

PART A: GENERAL PROJECT AND SITE INFORMATION

| INSTITUTIONAL & ADMINISTRATIVE | |
|----------------------------------|---|
| Country | Georgia |
| Subproject title | Rehabilitation of Road Pavement and Storm-water Drain System of Circle Road in Tskaltubo Town |
| Scope of subproject and activity | <p>The sub-project envisages rehabilitation of circular road in the central part of Town Tsklatubo, arrangement of storm water drainage system, pavements and rehabilitation of two bridges. The scope of works includes:</p> <ul style="list-style-type: none"> - Rehabilitation of Tskaltubo town's circular road paving (5430 m length, width 8.2 m – 20 m), - Arrangement of closed-type storm water drainage system (197 m), - Rehabilitation of pavement (9353 m), - Rehabilitation of road's two bridges #7 and #12 which are crossing artificial channels. - Rehabilitation of alley (parking strip) along the circle road (top soiling – 531 m³ and grass seeding 5 805 m²). <p>Damaged old asphalt paving was milled during the first phase of the project on the circular road. In order to improve the cross fall of the existing road, the new asphalt layer will be constructed with a proper chamber profile to ensure run-off of surface water. This will increase partly the thickness of the new asphalt layer at the top of the chamber to 80 mm depending on the slope of the existing profile.</p> <p>Sidewalks in poor conditions will be upgraded. Existing curbstone will be kept, but damaged sections will be repaired and replaced. At all crosswalks the sidewalks will have curb cuts for persons in wheelchairs. This also benefits others with mobility limitations, elderly pedestrians, and persons pushing strollers, carts, etc.</p> <p>Bridge #7 represents the arc type dike (length - 40 m) of vehicle significance. The project envisages installation of reinforced concrete risers for supports of lampions and arranging of decorative illuminators and railings, facing with basalt slabs.</p> <p>Rehabilitation of the existing bridge #12 (length 14.37, width – 12.21 m) envisages rehabilitation of the asphalt paving; sidewalks and curbs are to be faced with granite. In place of railing there are to be arranged four big and four small reinforced concrete columns with street lighting, which are to be faced with natural stone.</p> <p>The Volumes of the main civil works are given below:</p> <ol style="list-style-type: none"> 1. Sand-cement base - 300 m³; 2. Crushed-rock and milled asphalt mix - 7 000 sq. m; 3. Crushed-rock - 6 000 sq. m; 4. Liquid bitumen - 64.27 t; |

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| | 5. Coarse grained asphalt concrete paving - 7 000 sq. m; 6. Fine grained asphalt concrete paving - 100 603 sq. m; 7. Concrete curbs - 9 353 m; 8. Concrete base - 491.79 m ³ ; 9. Polypropylene crimped pipes D-900 mm. - 197 m; 10. Inlet wells with cast iron lattice - 9 pieces; 11. Rehabilitation of Bridges #7 and #12 12. Top soiling - 531 cu. m; 13. Provide seeding - 5 805 sq. m; 14. Sand layer – 120.15m ³ . | | | |
| Institutional arrangements (Name and contacts) | WB (Project Team Leader) Ahmed Eiweida | Project Management Giorgi Somkhishvili MDF | Local Counterpart and/or Recipient Tskaltubo Municipality | |
| Implementation arrangements (Name and contacts) | Safeguard Supervision WB DarejanKapanadze | Local Counterpart Supervision Technical Supervisor Consulting Firm: EptisaServicios de Ingenieria S.L. Spain | Local Inspectorate Supervision - | Safeguard Supervision MDF Anna Rukhadze |

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| SITE DESCRIPTION | | |
| Name of site | Town Tskaltubo | |
| Describe site location | The subproject site is located in western Georgia, Imereti Region, in Tskaltubo municipality. Access to the construction sites from Tbilisi is possible through Tbilisi-Kutaisi-Tskaltubomoto way and distance from Tbilisi is approximately 250 km. | Attachement 1: Site Map [] N and pictures |
| Who owns the land? | Municipal property | |
| Description of geographic, physical, biological, geological, hydrographic and socio-economic context | <p>Tskaltubo is the town located in Western Georgia, Imereti Region.</p> <p>Tskaltubo - the town in Georgia, an administrative center of Tskaltubo Municipality is located on the bank of the river Tskaltubostskali, at 120 m altitude above the sea level. It was established as the town in 1959 with the population of 16,8 thousand (as of 2002). It is well known as the balneotherapeutic health resort. Tskaltubo is located at 10 km distance from Kutaisi, and at 250 km distance from the Tbilisi City.</p> <p>According to the geotechnical zoning, the survey area is within the bounds of the Transcaucasian intermountain plain western molassic submersion zone (the Rioni intermountain trough).</p> <p>Tskaltubo is rich with hydro resources, the main artery of which is the river Rioni with its tributaries – rivers Tskaltubo and Gubistskali.</p> | |

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| | <p>Ground waters play immense role in formation of the engineering-geological conditions of the survey area. Here several aqueous horizons and complexes are distinguished.</p> <p>Tskaltubo is a resort, with focus on balneotherapy for circulatory, nervous, musculoskeletal, gynaecological and skin diseases, but since the 1970s its repertoire has included "speleotherapy", in which the cool dust-free environment of local caves is said to benefit pulmonary diseases (including bronchial asthma).</p> <p>Number of the Tskaltubo Municipality population as of 2002-2006 is rather stable, it has not significantly decreased, just by 0,9%, and according to the available data amounts to 71381 (females - 37696; males -34193).</p> <p>By economic activity, major part of the employed population is occupied in the following sectors: agriculture, hunting and forestry (87,8%). In general, the number of population employed during the period of 2002-2006 has negligibly increased.</p> |
| Locations and distance for material sourcing, especially aggregates, water, stones? | <p>Average distance of transportation of local construction materials will be around 10km.</p> <p>Water and power supply will be available at the construction site from the municipal water and power supply systems.</p> <p>Some of excavated material will be backfilled and some additional material will be delivered from the licensed borrowing sites – estimated distance 5-10 km.</p> |
| LEGISLATION | |
| Identify national & local legislation & permits that apply to project activity | <p>The subproject has been classified as low risk Category B according to the WB policies and the EMF. Tskaltubo municipal authority approved the subproject.</p> <p>Georgian legislation does not require any type of environmental review, approval, or permitting for the subproject. Though according to the national regulatory system,</p> <ul style="list-style-type: none"> (i) works contractor must be licensed, (ii) construction materials must be obtained from licensed providers, (iii) 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, (iv) if contractor wishes to operate own asphalt or concrete plant (rather than purchasing these materials from other providers), then the contractor must obtain an environmental permit with an established ceiling of pollutant concentrations in emissions and technical report on inventory of atmospheric air pollution stationary source agreed with MoENRP. (v) disposal of the construction waste into a landfill or permanent placement of access inert material generated in the course of earth works in a selected location must be approved by local (municipal) governing bodies in written. <p>Copies of extraction licenses (if applicable), permits for operating asphalt/concrete plants (if applicable), and waste disposal permits will be attached to this EMP once the contractor is selected and mobilized to the work site.</p> <p>GOST and SNIP norms must be adhered.</p> |
| PUBLIC CONSULTATION | |
| Identify when / where the public consultation | <p>Tskaltubo population was informed about the upcoming urban regeneration plans in a meeting held in Tskaltubo Governor's office in Tskaltubo (05.06.2012) and generated positive reaction of the beneficiary community.</p> |

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| process took place | The subproject-specific EMP along with EMPs for other subprojects in Tskaltubo was discussed in a consultation meeting held in Tskaltubo on 28 May, 2014. Minutes is attached to this EMP. |
| INSTITUTIONAL CAPACITYBUILDING | |
| Will there be any capacity building? | <input checked="" type="checkbox"/> N or <input type="checkbox"/> Y if Yes, Attachment 2 includes the capacity building program |

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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No | See Section A below |
| | B. New construction | <input type="checkbox"/> Yes <input checked="" 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 type="checkbox"/> Yes <input checked="" 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 |
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| 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. |
| General Rehabilitation and /or Construction Activities | Air Quality | <ul style="list-style-type: none"> (a) During demolish works destruction dust shall be suppressed by ongoing water spraying. (b) Demolition debris shall be kept in controlled area and sprayed with water mist to reduce debris dust (c) During pneumatic drilling/wall destruction dust shall be suppressed by ongoing water spraying and/or installing dust screen enclosures at site (d) The surrounding environment (sidewalks, roads) shall be kept free of debris to minimize dust (e) There will be no open burning of construction / waste material at the site (f) There will be no excessive idling of construction vehicles at sites |
| | Noise | <ul style="list-style-type: none"> (a) Construction noise will be limited 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) The machinery should move only along the preliminarily agreed route; (d) The maximum allowed speed should be restricted; (e) Proper technical control and maintenance practices of the machinery should be applied; (f) No-load operations of the vehicles and heavy machinery is not allowed. Proper mufflers will be used on machinery. |
| | Water Quality | <ul style="list-style-type: none"> (a) Contractor should be required to 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) Contractor will plan all excavations, topsoil and subsoil storage so as to reduce to a minimum any runoff; (c) Revision of vehicles will be required to ensure that there is no leakage of fuel and lubricating materials. All machinery will be maintained and operated such that all leaks and spills of materials will be minimised. Daily plant checks (Vehicle Maintenance Procedure) will be undertaken to ensure no leaks or other problems are apparent. Vehicle maintenance, cleaning, degreasing etc will be undertaken in designated areas, of hard-standing, not over made ground. Maintenance points will not be located within 50m of any watercourse. (d) Lubricants, fuel and solvents should be stored and used 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. (e) <u>Works near the watercourses.</u> Contractor shall ensure proper handling of paints materials, oil and lubricants to avoid any spillage of them into the dry water. It is not advised to paint the metal railings with the sprayer. Storage of potentially polluting materials within 50 m of the watercourses will be prohibited. Materials used for road/bridge rehabilitation and waste should not be allowed to dump into the channels. <u>Wet cement and/or concrete will not be allowed to enter any watercourse, pond or ditch.</u> |

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| | Waste management | <p>(a) Waste collection and disposal pathways and sites will be identified for all major waste types expected from demolition and construction activities.</p> <p>(b) Mineral construction and demolition wastes will be separated from general refuse, organic, liquid and chemical wastes by on-site sorting and stored in appropriate containers.</p> <p>(c) Burning of waste on the SP site is forbidden.</p> <p>(d) Construction waste will be collected and disposed properly by licensed collectors</p> <p>(e) The records of waste disposal will be maintained as proof for proper management as designed.</p> <p>(f) Whenever feasible the contractor will 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) Contractor will be required to submit to the MDF copies of the licenses, permits, written agreements, certificates, etc. to prove that all materials are obtained from licensed providers.</p> <p>d) 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>e) Haul materials in of peak traffic hours;</p> <p>f) Place speed regulating, diverting, and warning signs for traffic as appropriate.</p> |
| | Earthworks | <p>a) Topsoil should be stripped before starting of earthworks;</p> <p>b) Proper topsoil storage practice should be applied to ensure to maintain physico-chemical and biological activity of the soil; Temporary protective silt fencing should be erected to avoid erosion (wash down);</p> <p>c) Stored topsoil should be used for reinstatement and landscaping</p> <p>d) Topsoil from the sites, which will not be reinstated to the initial conditions will be distributed carefully on the surrounding area.</p> <p>e) Topsoil will be reinstated separately from subsoil, with care taken to avoid mixing of the materials. The topsoil reinstatement will be sufficient to restore the fertile depth to the initial conditions as judged by the topsoil strip during visual observation and comparison of the reinstated site and adjacent land. When replacing the topsoil Contractor will program the works such that the areas furthest away from the stockpiles are reinstated first with reinstatement getting progressively closer to the stockpiles, thus reducing the number of vehicle movements over the reinstated topsoil. The reinstated topsoil will then be harrowed, where practical, to protect the stability and promote vegetative growth.</p> <p>f) In case chance find is encountered in the course of earth works, the contractor must immediately stop any physical activity on site and inform the MDF. The MDF promptly notifies the Ministry of Culture and Monument Protection, which takes over responsibility for the following course of action. Works may resume only upon receipt of written permission from the Ministry of Culture and Monument Protection.</p> |
| Traffic and Pedestrian Safety | Direct or indirect hazards to public traffic and pedestrians by construction activities | <p>(a) In compliance with national regulations the contractor will 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. |

MONITORING MANAGEMENT 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 |
| Transportation of construction materials and waste Movement of construction machinery | Technical condition of vehicles and machinery Confinement and protection of truck loads with lining Respect of the established hours and routes of transportation | Construction site | Inspection | Unannounced inspections during work hours and beyond | Limit pollution of soil and air from emissions; Limit nuisance to local communities from noise and vibration; Minimize traffic disruption. | MDF, Construction supervisor, Traffic Police |

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| Earthworks | <p>Temporary storage of excavated material in the pre-defined and agreed upon locations;</p> <p>Backfilling of the excavated material and/or its disposal to the formally designated locations;</p> <p>In case of chance finds immediate suspension of works, notification of the Ministry of Culture and Monument Protection, and resumption of works exclusively upon formal consent of the Ministry.</p> <p>Topsoil is striped before starting of the earthworks;</p> <p>Proper topsoil storage practice is applied; Temporary protective silt fencing is erected;</p> <p>Striped topsoil is used for reinstatement and landscaping.</p> | Construction site | Inspection | <p>In the course of earth works</p> <p>Construction period: starting from topsoil stripping and ending with reinstatement</p> | <p>Prevent pollution of the construction site and its surroundings with construction waste; Prevent damage and loss of physical cultural resources</p> | MDF, Construction supervisor |
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| Sourcing of inert material | <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> | Borrowing areas | <p>Inspection of documents</p> <p>Inspection of works</p> | In the course of material extraction | <p>Limiting erosion of slopes and degradation of ecosystems and landscapes;</p> <p>Limiting erosion of river banks, water pollution with suspended particles and disruption of aquatic life.</p> | MDF, Construction supervisor |
| Generation of construction waste | <p>Temporary storage of construction waste in especially allocated areas;</p> <p>Timely disposal of waste to the formally designated locations</p> | 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 | <p>Installation of traffic limitation/diversion signage;</p> <p>Storage of construction materials and temporary placement of construction waste in a way preventing congestion of access roads</p> | At and around the construction site | Inspection | In the course of construction works | <p>Prevent traffic accidents;</p> <p>Limit nuisance to local residents</p> | MDF, Construction supervisor |

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| 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 roads | Installation of relevant signage for traffic safety. Disposal of asphalt and or other waste from the repair works to the designated landfill. | Rehabilitated sections of roads | Inspection | During regular operation During maintenance works | Prevent road accidents and disruption of traffic Prevent pollution of roadside area with solid waste | Tkaltubo municipality |
| Maintenance of rehabilitated storm water drainage system | Periodic cleaning of drainage system from silt and solid waste. | Rehabilitated storm water drainage system | Inspection | During regular operation | Prevent congestion of storm water drainage system. | Tkaltubo municipality |

Attachment 1. Site map and pictures



Pictures of the bridge 7



Pictures of the bridge 12



Attachment 2: Minutes of the Public Consultation Meeting

Environmental Management Plans for the Urban Development Sub-Projects in Tskaltubo

Imereti Regional Development Project (RDP 2)

Minutes of the Public Consultation Meeting

May 28/ 2014

Within the scope of Imereti regional development project public hearing of the Environmental Management Plans was held on May 28/2014 in town Tskaltubo at hotel “Promete” for the following sub projects:

1. Restoration of Theatre and Municipality Building in Tskaltubo;
2. Restoration and Internal Repairing Works of Train Station and LCG Building and Restoration of Small Size Pedestrian Bridges in Tskaltubo;
3. Rehabilitation of Pavement and Storm-water Drain System of Circle Road in Tskaltubo;
4. Rehabilitation of Roads, Foot Paths and Storm water Drain System of Central Park and Lake "Tsivi" in Tskaltubo.

Attendants:

1. Eka Suladze, Balneoservice;
2. Khatuna Maglakelidze, Ltd “Edelvais 2007”;
3. O. Maglakelidze, Balneoservice;
4. Manana Kurtsikidze, NGO “Women information center”;
5. Murtaz Kankadze, newspaper “ AkhaliTskaltubo”;
6. Mevlud Pailodze, Ltd “ Progerss” Director;
7. Otar Chitaishvili , Resort and Tourism Management Center- Director;
8. Vano Rokva, Tskaltubo Municipality Sakrebulo, Head of Administration;
9. Gultamze Jimsheleishvili, Tskaltubo Municipality Gamgeoba, Senior specialist;
10. Tamaz Dzadzamia, Tskaltubo resort;
11. GuGuli Ckhaidze, Tskaltubo Municipality Gamgoba;
12. Pati Gagoshidze, Tskaltubo Municipality Gamgeoba;
13. Grigol Kurashvili, Tskaltubo Municipality Gamgeoba;
14. Zviad Khachapuridze, Tskaltubo Municipality Gamgeoba;
15. Varlam Tskhakaia Tskaltubo Municipality Gamgeoba;
16. Avtandil Gugava, Tskaltubo Municipality Gamgeoba;
17. Vakhtang Chirgadze, Tskaltubo Municipality Gamgeoba;
18. Teimuraz Pachulia, Tskaltubo Municipality Gamgeoba, Infrastructure Unit ;
19. Dimitri Sulaberidze, Tskaltubo Municipality Gamgeoba, Infrastructure Unit;
20. Ana Rukhadze , environmental safeguard specialist, MDF;
21. MerabS vanidze, specialist of West Georgia project monitoring unit, MDF;
22. Avtandil Gotsadze, specialist of West Georgia project monitoring unit, MDF;
23. Giorgi Mikeladze, program coordination specialist, MDF;

24. Mikhail Doiashvili, Eptisa, safety specialist;
 25. Anzor Babunashvili, Eptisa, engineer.

Meeting was opened by M. Svanidze who introduced attendants with scheduled and ongoing projects within the scope of Imereti regional development project.

Ana Rukhadze presented environmental management plans for 4 SPs which commencement is foreseen in near future. A. Rukhadze discussed issues concerning scheduled works, environment and its eventual impact, mitigation measures, and contractor's environmental obligations. A. Rukhadze provided contact persons information who can be reached by the population in case of claims concerning social and environmental impacts.



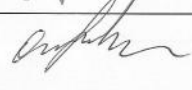
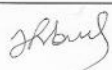

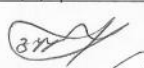


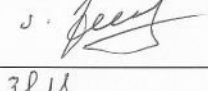

The following questions were asked by the attendants:

| Questions and remarks | Answers and comments |
|--|--|
| <i>What is the approximate period for sub projects implementation?</i> | Attendants were provided information concerning commencement and finalization of scheduled and ongoing projects. |
| <i>Are there any dust reduction measures foreseen? Watering of the road will be desirable in order to reduce dust.</i> | Explanation was provided that each environmental management plan includes dust reduction measures, including watering. |
| <i>SPs activity overlap resort season commencement. What kind of mitigation measures will be taken in order not to interference resort functioning?</i> | It was explained that EMP includes measures to reduce noise, also hard heavy machinery operation will be implemented only based on preliminary agreed schedule with municipality. Road signs, barriers will be arranged to ensure pedestrians safety and measures will be taken for dust reduction and proper management of the generated waste. |
| <i>On time finalization of works near resort zone must be paid particular attention, It is necessary to arrange access roads to healing bath, as well as to fill trenches.</i> | Works schedule will be reviewed within the each SP in order to start those objects prior which are important for serving tourists. Operating healing baths adjacent territory will be irrigated for dust reduction purpose and warning signs and barriers will be arranged. |

Minutes of the Meeting was prepared by Ana Rukhadze, Environmental safeguard specialist, MDF.

May 29 /2014 .

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| | համա արդիան | Համաժողով հանձնաժողով. 016 | Զ. Կոմ. Վեր | ՝ զ |
| 18. | Եզրօրինակ արտադր | հանձն. 10/12 | Զ. Կոմ. Վեր | Զ. Կոմ. Վեր |
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| 8. | 3160 00431 | ხალხობრულ მუნიციპალიტეტის სახელმწიფო | აჭარაში უფროსი |  |
| 9. | ბარბაქაძე, ჯემალბეგო | მუნიციპალიტეტის სახელმწიფო | მ. 11/11/1990-05 591-05-90-05 |  |
| 10. | ბარბაქაძე, დ. დ. | მუნიციპალიტეტის სახელმწიფო | ბარბაქაძე 591-15-14-85 |  |
| 11. | მეგრელი, დ. დ. | მუნიციპალიტეტის სახელმწიფო | საბურთაქოს სახელმწიფო |  |
| 12. | მეგრელი, დ. დ. | მუნიციპალიტეტის სახელმწიფო | საბურთაქოს სახელმწიფო |  |
| 13. | მეგრელი, დ. დ. | მუნიციპალიტეტის სახელმწიფო | 595559622 |  |
| 14. | მეგრელი, დ. დ. | მუნიციპალიტეტის სახელმწიფო | 591059300 |  |
| 15. | მეგრელი, დ. დ. | მუნიციპალიტეტის სახელმწიფო | 595559067 |  |
| 16. | მეგრელი, დ. დ. | მუნიციპალიტეტის სახელმწიფო | 595559625 |  |
| 17. | მეგრელი, დ. დ. | მუნიციპალიტეტის სახელმწიფო | 591059016 |  |

