



Village Mirzaani road (Dedoplistskaro Municipality)

Rehabilitation Sub-Project

Environmental Management Plan

WORLD BANK FINANCED

SECOND REGIONAL AND MUNICIPAL INFRASTRUCTURE DEVELOPMENT PROJECT

Tbilisi, Georgia

October 2014

Environmental Screening Form

Rehabilitation of the road and installation of the concrete ditches (110,5m³) in village Mirzaani is planned within the SP. Total length of the road to be rehabilitated under this project is about 0,89 km.

(A) IMPACT IDENTIFICATION

<p>Has sub-project a tangible impact on the environment?</p>	<p>The project has a modest short term negative environmental impact while its long term impact is expected to be positive.</p> <p>The main impact will be during the construction phase, which includes works for laying various layers, movement and operation of heavy vehicles, supply of materials. The project is located in urban area with strongly modified environment. Therefore the impact is transitory and insignificant (noise, emissions, construction waste, temporary disturbance of traffic and access, etc.).</p>
<p>What are the significant beneficial and adverse environmental effects of sub-project?</p>	<p>The subproject has a long term positive impact on the environment through improving living and transportation conditions of the local population. It will decrease existing negative impacts on 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>
<p>May the sub-project have any significant impact on the local communities and other affected people?</p>	<p>No new land take and resettlement are expected.</p> <p>The long term positive social impact will be beneficial (improvement of local population living conditions,</p>

	<p>better traffic safety conditions, improved convenience of travelling, growth of tourist flow).</p> <p>Negative impacts are short term and limited to the construction site. They are related to the possible disturbance described above.</p>
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(B) MITIGATION MEASURES

<p>Were there any alternatives to the sub-project design considered?</p>	<p>Given that the subproject envisages rehabilitation of the existing infrastructure, no alternatives have been considered.</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, use the quarry materials from the licensed quarries only, prevent water and soil from pollution (fuel spills due to equipment failure, raw asphalt/concrete spills etc.), avoid disturbance of population (noise, dust, emissions) through proper work/supplies scheduling, traffic management, good maintenance of the construction machinery, etc.</p>
<p>What lessons from the previous similar projects have been incorporated into the sub-project design?</p>	<p>MDF have wide experience of implementation of 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 and road marking which increase traffic and pedestrians safety.</p> <p>Due to narrow width of the road (about 5 m average) between private properties (residential yards) no arrangement of the sidewalk is possible. Rather, the use of new shallow, low-slope, concrete swales along each side of the road provide some space for “informal” use as pedestrian way/ parking (due to singular road in</p>

	village, no alteration of traffic patterns appears possible to avoid the lack of sidewalks).
Have concerned communities been involved and have their interests and knowledge been adequately taken into consideration in sub-project preparation?	<p>The Project has been developed by the Municipality in consultation with the affected communities and as a response to the current situation.</p> <p>Small vendors along the street (two small shop), as well as local population are informed about scheduled rehabilitation works and have no claim on related disturbances. Their interests have been taken into consideration during preparation of the SP design. MDF and local municipality will organize consultation meeting with local population before starting of rehabilitation works.</p> <p>MDF and local municipality have organized consultation meeting with local population prior to the commencement of construction works and public hearings of the EMP prepared for the SP was held in village Mirzaani on 10th of October 2014.</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

The project does not require land acquisition and/or resettlement and does not trigger OP 4.12.

Social Screening of Sub-projects

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 infra-structure (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			

PART A: GENERAL PROJECT AND SITE INFORMATION

INSTITUTIONAL & ADMINISTRATIVE			
Country	Georgia		
Project title	Regional and Municipal Infrastructure Development		
Sub-Project title	Village Mirzaani roadrehabilitation		
Scope of site-specific activity	Rehabilitation of the road and installation of the concrete ditches (110,5m ³). Total length of the road to be rehabilitated within the SP is about 0,89 km.		
Institutional arrangements (WB)	Task Team Leader: Ahmed Eiweida, Co-Task Team Leader: Xiaolan Wang	Safeguards Specialist: DarejanKapanadze	
Implementation arrangements (Borrower)	Implementing entity: Municipal Development Fund of Georgia	Works supervisor: Eptisa Servicios de Ingenieria S.L. Spain	Works contractor: LTD „Kavkasavtomagistrali” LTD „A and Z Lojistiki”
SITE DESCRIPTION			
Name of institution whose premises are to be rehabilitated	Dedoplistskaro Municipality		
Address and site location of institution whose premises are to be rehabilitated	44, Kostava street, Dedoplistskaro; Tel: 0356 22 55 34; E-mail: dedoplistskaro.mun@gmail.com info@dedoplistskaro.ge The SP site is located in eastern Georgia, Kakheti region, in Dedoplistskaro municipality. Village Mirzaani is located about 120 km away from Tbilisi.		
Who owns the land? Who uses the land (formal/informal)?	Municipal property		
Description of physical and natural environment around the site	Village Mirzaani is located in Zemo Machkhaani community (Dedoplistskaro Municipality) on the south-east slope of Gombori range on 770 m above sea level. Distance from town Dedoplistskaro is 22 km. Population of village Mirzaani is 672 inhabitants.		

	<p>The road to be rehabilitated is located in urban area. The road has a touristic importance during whole year, as connects to the house-museum of the famous Georgian painter Niko Pirosmani. The road is bordering private houses from both sites. Two small shops, kindergarten and church are located along the road.</p> <p>Due to narrow width of the road (about 5 m average) between private properties (residential yards) no arrangement of the sidewalk is possible. Rather, the use of new shallow, low-slope, concrete swales along each side of the road provide some space for “informal” use as pedestrian way/ parking (due to singular road in village, no alteration of traffic patterns appears possible to avoid the lack of sidewalks). Speed bumps to reduce vehicle speed and appropriate signs will be arranged to increase pedestrian safety.</p> <p>Storm water will be discharged into the ravine located at approximately 80 m distance from the road end.</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>Distance to the nearest licensed borrow pit is approximately 50 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>Dedoplistskaro 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 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

	<p>report on inventory of atmospheric air pollution stationary source agreed with Ministry of Environment and Natural Resources Protection.</p> <p>(iv) Permanent placement of the inert material (cut ground and sedimentary soil) generated in the course of earth works in a selected location must be approved by local (municipal) governing bodies in written;</p> <p>(v) Construction waste must be disposed on the nearest municipal landfill in accordance with written agreement with the Solid Waste Management Company of Georgia Ltd. under the Ministry of Regional Development and Infrastructure;</p> <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 works site.</p> <p>GOST and SNIP norms must be adhered.</p>
PUBLIC CONSULTATION	
<p>When / where the public consultation process will take /took place</p>	<p>EMP was discussed with beneficiary community prior to the commencement of works on the 10 th of October 2014. The meeting was held in the office of Dedollistskaro municipality Gangebeli representative in village Mirzaani. Minutes of the public hearings is attached to this EMP.</p>
ATTACHMENTS	
<p>Attachment 1: Site map and pictures Attachment 2: Record on public consultation</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 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
0. 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) Demolition debris shall be kept in controlled area and sprayed with water mist to reduce debris dust (b) During pneumatic drilling/wall destruction dust shall be suppressed by ongoing water spraying and/or installing dust screen enclosures at site (c) The surrounding environment (sidewalks, roads) shall be kept 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) Truck loads should be confinement and protected with lining.
	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 are not allowed. Proper mufflers will be used on machinery.
	Water Quality	<ul style="list-style-type: none"> (a) Contractor will 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) Wet cement and/or concrete will not be allowed to enter any watercourse, pond or ditch.

	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) Construction waste will be collected and disposed properly by licensed collectors</p> <p>(d) The records of waste disposal will be maintained as proof for proper management as designed.</p> <p>(e) 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) 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>
H 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 insure 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. ▪ To arrange speed bumps to reduce vehicle speed and appropriate signs (road narrows/mind pedestrians) in agreement with local traffic police.

PART D: MONITORING PLAN

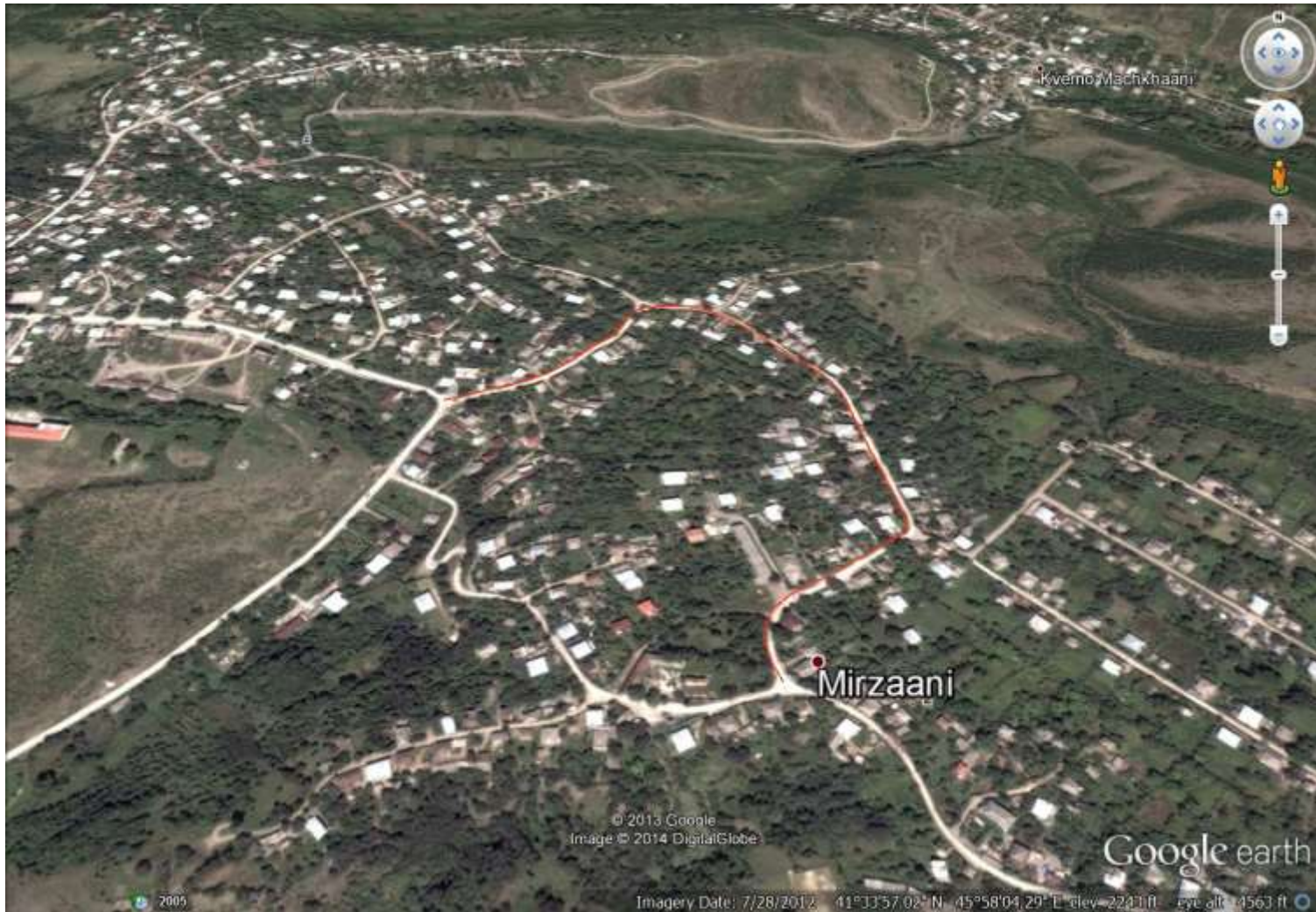
Activity	What (Is the parameter to be monitored?)	Where (Is the parameter to be monitored?)	How (Is the parameter to be monitored?)	When (Define the frequency / or continuous?)	Why (Is the parameter being monitored?)	Who (Is responsible for monitoring?)
CONSTRUCTION PHASE						
Supply with construction 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
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
Earthworks	Temporary storage of excavated material in the pre-defined and agreed upon locations; Backfilling of the excavated material and/or its disposal to the formally designated locations;	Construction site	Inspection	In the course of earth works	Prevent pollution of the construction site and its surroundings with construction waste; Prevent damage and loss of	MDF, Construction supervisor

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?)
	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.				physical cultural resources	
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

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?)
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
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

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?)
OPERATION PHASE						
Maintenance of rehabilitated road	<p>Maintenance of relevant speed limiting bumps and road signage for traffic safety;</p> <p>Demarcation of the sections of streets under repair;</p> <p>Disposal of asphalt and or other waste from the repair works to the designated landfill.</p>	Rehabilitated sections of roads	Inspection	During maintenance works	Prevent road accidents and disruption of traffic	Dedoplistskaro municipality

Attachment 1. Map and pictures of the road to be rehabilitate in v. Mirzaani







Attachment 2: Documents of public consultation

Regional and Municipal Infrastructure Development Project II

Public hearing on natural and social environment impact management plan of road rehabilitation sub project in village Mirzaani (Dedoflistkaro Municipality)

October 10, 2014

In village Mirzaani on October 10, 2014 public hearing of road rehabilitation sub project on natural and social environment impact management plan was held in community attorney administration office.

Meeting was attended by village Mirzaani inhabitant: Siko Tarashvili, Tamar Benashvili, Nakvala Bikashvili, Lia Abalashvili, Khvicha Gavashelishvili, Nika Gonashvili, Tamar Barashvili, Nodar Lobjanidze, Akaki Tarashvili, and Dedoplistkaro governor representative.

Also MDF representatives: Ana Rukhadze- Environmental Safety Specialist, Tamar Kardava- Specialist of communication with beneficiaries, Gogi Sesiashvili-Projects Monitoring Specialist .

Tamar Kardava opened the meeting; she provided information regarding ongoing and scheduled sub projects within the framework of Imereti Regional Development Project.

A. Rukhadze presented impact management plan on natural and social environment. She spoke about scheduled works and possible impacts and mitigation measures, also regarding contractor's environmental obligations. She provided contact persons information, to whom population can refer in case of claims or occurring environmental impact or social issues.

Tarashvili mentioned that water supply system will be recovered before commencement of road rehabilitation project.

Following questions were asked by the participants:

Questions and remarks	Answers and comments
<i>Since project commencement is scheduled during October-March. asphalt works should not be implemented due to the rain or freeze</i>	G. Sesiashvili explained that works process requirements are determined by technical specifications including asphalt works.
<i>Will culvert be arranged on both side of the road?</i>	The project envisages construction of concrete water drain channel on both sides of the road.
<i>Will sidewalk be arranged?</i>	Due to the narrow road it is impossible to arrange sidewalks. Area arranged with small depth water drains partly can be utilized for car parking. Speed reducing barriers and warning road signs will be arranged for pedestrian safety.

At the end of the meeting village Mirzaani population expressed positive attitude toward project implementation, they hope for timely finalization of the road rehabilitation.

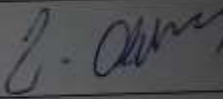
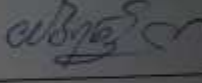

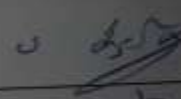
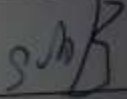

Minutes of the meeting is prepared by A. Rukhadze

MDF Environmental Safety Specialist

October 10, 2014



რეგიონული და მუნიციპალური განვითარების მეორე პროექტი
 სოფელ მირზაანში (დედოფლისწყაროს მუნიციპალიტეტი) გზის რეაბილიტაციის ქვე-პროექტის
 გარემოს დაცვის მართვის გეგმის საჯარო განხილვა
 10 ოქტომბერი, 2014 წელი
 შეხვედრაზე დამსწრეთა რეგისტრაციის ფურცელი

	სახელი, გვარი	ორგანიზაცია	საკონტაქტო ინფორმაცია	ხელმოწერა
1.	სივლი თამაშვიანი		557-409138	
2.	თამარო ბენაშვიანი		595-8538-17	
3.	მაცუაია ბიგ-შვიანი			
4.	ანდრეასი ბიგ-შვიანი		595 85 36 18	
5.	ჯია ბაგაშვილი		599 338 937	
6.	ხვიჩა გვამყალიძე		593-43-30-35	

7.	චන්ද්‍රා ඉංජිනේරු		568-70-29-62	ච. ඉංජිනේරු
8.	මාධ්‍ය ක්‍රමාලය		568 712 612	ම. ක්‍රමාලය
9.	මාධ්‍ය ක්‍රමාලය		568 67 7924	ම. ක්‍රමාලය
10.	ඉන්ද්‍රිය ක්‍රමාලය		555-722 735	ඉ. ක්‍රමාලය
11.	මාධ්‍ය මණ්ඩලය		592805906	ම. මණ්ඩලය
12.	මාධ්‍ය ක්‍රමාලය	ම. ක්‍රමාලය	577 112-118	ම. ක්‍රමාලය
13.				
14.				
15.				
16.				