

Community-led Urban Strategies in Historic Towns (COMUS)



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Chiatura cableway "Perevisa-Town" Rehabilitation project

Feasibility study



Chiatura
Georgia
2017

Foreword

“Community-led Urban Strategies in Historic Towns” (COMUS) is a joint two-year program developed by the European Union and the Council of Europe, which is implemented in five countries: Armenia, Azerbaijan, Georgia, Moldova and Ukraine. COMUS promotes cooperation between Ministries and other local partners of the countries participating in the program to support reinvestment into historic towns. The project is implemented in nine towns where test goal-oriented works are performed to improve living conditions of citizens, support social integration and facilitate sustainable development. The activities are based on the principle of inter-disciplinary local development, which does not imply turning the town into a subject of technical conservation or rehabilitation, but converting its capabilities into social and economic resources.

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Summary

Rehabilitation of the ropeway "Perevisa-Town" is one of the two priorities chosen for implementation in the town of Chiatura within the framework of "COMUS". The project implies rehabilitation of architectural and technological part of the first passenger ropeway in Georgia and its expansion by adding new functions. The ropeway is a unique facility in Georgia and the former Soviet Union, which was constructed in 1953. It has a distinguished historic, social and architectural value.

The ropeway is a significant part of the transport system of Chiatura, which provides transportation services to approximately 5000 passengers every month and ensures the shortest connection between the town centre and settlements located in Perevisa Plateau. In recent years, the physical condition of architectural and technologic parts has significantly worsened. This circumstance threatens passengers' safety, 30% of which are children and juveniles.

The ropeway rehabilitation project consists of four main components:

- a) Lower station of the ropeway
- b) Upper station of the ropeway (drive)
- c) Technological part
- d) Rolling stock (passenger wagons)

Currently the ropeway is owned by "Georgian Manganese" and it is scheduled to transfer it to municipal ownership after preliminary negotiations. Other main stakeholders are the Ministry of Economy and Sustainable Development of Georgia and the National Agency for Cultural Heritage Preservation.

The project envisages full physical rehabilitation of the ropeway to ensure passenger safety, maintain a unique monument of cultural heritage and strengthen its touristic function.

The implementation of the project is estimated to be within 30 months, which along with other activities means:

- Stage 1: Completion of Negotiations with LLC "Georgian Manganese" and transfer of the ropeway to the municipal ownership (1-4 months);
- Stage 2: Preparation of a detailed design and cost-estimate documentation (5-12 months);
- Stage 3: Rehabilitation works (13-29 months)

The approximate total cost of the project is GEL 1,992,000.

The rehabilitation project will be managed by the Project Implementation Group, which will coordinate and monitor the process for its timely and effective implementation, assess the results and increase the visibility of the project. The Project Implementation Group will be staffed with permanent and temporary



members. Representatives of Chiatura Municipality, the Ministry of Economy and Sustainable Development, the National Agency for Cultural Heritage Preservation and Funding Organization(s) will be constantly involved in the project management.

Implementation of the project will have significant social benefits, it will ensure safe transportation of passengers, improve the town transport network, improve the living standards of the town, increase tourism potential, increase professional qualification of the staff and understanding of the importance of industrial cultural heritage throughout the country.

1. Introduction



Chiatura is a historic industrial town in the western part of Georgia and an administrative centre of Chiatura municipality of Imereti region. Chiatura is located 200 km away from the capital of Georgia, along the river Kvirila, in the gorge and its surroundings. Choosing Chiatura as a beneficiary of COMUS Project in 2015 was due to its rich and diverse industrial heritage.

The discovery of manganese deposits in Chiatura area in the 19th century facilitated establishment of the town and turning it into the largest industrial hub. Before World War I, Georgia was the largest exporter of manganese ore – Georgia exported 50% of the world's ore. Georgian ore was used by large metallurgical enterprises of Europe and America. Manganese production occupied one of the central places in the industry of Soviet Georgia. The development of the mining industry and the complex relief of the town gave way to scientific and technological innovations. In the Soviet era, Chiatura was chosen as a centre for design, construction and scientific research of ropeway projects. By the early 1980s, 17 passenger and 28 freight ropeways were operating in Chiatura and its surroundings. The ropeways in the shortest way connected the town with suburbs, villages and industrial areas located in highlands, at 200-250 m above the valley. The well-developed network of passenger ropeways has become the main component of the town transport system. "Perevisa-Town" is one of the distinct parts of this network. It was the first complete passenger ropeway in the Soviet Union.

After the collapse of the Soviet Union, Georgia and Chiatura passed through a deep socioeconomic crisis. The population of the town started mass migration to the capital and outside the country. In the last 25 years, the population of Chiatura decreased by 56% and according to the census for the year 2014 the total number of population is 12 803. The industrial production discontinued in the town, infrastructure and cultural, educational and scientific life broke down. The trace of this social and economic blow is still felt in the town. 28% of the population of the municipality live in extreme poverty.

Today, most of the passenger ropeways in the town and its surroundings are outdated, require repair and can not provide safe transportation of passengers. During these years, the physical condition of "Perevisa-Town" ropeway significantly worsened. The buildings of the station and technological part require capital repair.

This project was selected based on expected social impact and high historical, art and engineering significance of the facility.

The feasibility study of rehabilitation and restoration of the cultural heritage monument ropeway "Perevisa-Town" is focused on the architectural and technological parts of the ropeway stations. "Perevisa-Town" is the only ropeway built in the style of Social-Realism in Georgia, which is still preserved in its original form. It is a major transport vehicle that connects Perevisa plateau with the centre of the town, and despite its poor physical condition, it attracts many tourists. The project aims at maintaining local cultural heritage to promote social and economic development of the town. It is expected that rehabilitation of the ropeway will ensure safe transportation of citizens, increase living standards in the town and become a new place of tourist attraction.

The feasibility study consists of five main components and contains detailed description of the facility, characteristics of capabilities for further development, project objectives, planned activities and expected impacts, information about the period required for the implementation of the project, basic activities and project cost estimates. Maps, archival visual materials and photographs of the existing situation accompany the document.

A local expert who was consulted by various local specialists and international consultants prepared the feasibility study.

2. Description of the facility

2.1. Description of the facility and its parts

The passenger ropeway "Perevisa-Town" was built in 1953. It is the first complete passenger ropeway that ensures the shortest connection between settlements located in Perevisa Plateau and the town centre. It took about 3-5 minutes to reach the place of destination by ropeway, which by the moment of its construction was 10 times less than travelling by motor vehicles. From 2006 "Georgian Manganese" owns it. Today this organization carries out its exploitation, though preliminary negotiations are being conducted on its transfer to the municipal ownership.

The ropeway is composed of two stations, technological part and movable components (passenger wagons). The length of the ropeway is 420 meters, the difference between levels is 190 meters.

The ropeway transports up to 5,000 passengers every month, including about 900 passengers aged under 12 and about 300 passengers aged from 13 to 16. Currently, the share of tourists among passengers is small and it is approximately 50 persons per month, which is 1% of the total number of passengers.

a) Lower station of the ropeway (retractor)

The lower station of the ropeway is located in Chiatura, in Ninoshvili Street, on the right bank of the river Kvirila. The building is located at an angle towards the street, parallel to Perevisa plateau and overlooking the river Kvirila. Taking into consideration the relief, from the side of the river the building is located on a high mounting. The building is distinguished by the monumentality characteristic of the Soviet post-war architecture. The rectangular one-storey building is accompanied on its north-east and south-western facades by galleries with pillars decorated with capitals, from which the entrances to the waiting hall are arranged. The north-west façade is decorated with a composition of three arches. The south-east façade consists of two open arcades composition. The waiting hall is located in this part of the building and passenger wagons move to and from this place. The ceiling of the waiting hall is decorated with coffers. In the north-west part of the building there is a technical part of the ropeway.

In 1967 "Town-Upper Rgani" ropeway was constructed, whose lower station is located in the vicinity of the lower station of "Perevisa-Town", near its north-east entrance, in Ninoshvili Street.

b) Upper station of the ropeway (drive)

The upper station of the ropeway is located in Chiatura, village of Perevisa, adjoining Pantsulaya street. The building is located at the edge of Perevisa Plateau and overlooks Chiatura. Like the lower station, with due account to the relief, the building is located on the mounting and is similar to it stylistically. The drive of the ropeway is installed at the upper station, and it determines the spatial-volumetric structure of the building. The high, T-shaped building has a low, decorated with pillar gallery from three sides. A rectangular shaped waiting hall with a large arch and space for incoming and outgoing wagons and technical part of the ropeway are located on the T-shaped axis. Taking into account these functional differences, these spaces are separated from each other and have independent entrances. The waiting hall can be accessed from the north-east and south-west facades surrounded by a gallery, and the technical part can be accessed from the south-east. In the south-east the building is surrounded by a two-flights main staircase, which connected it to the former Cultural Park.

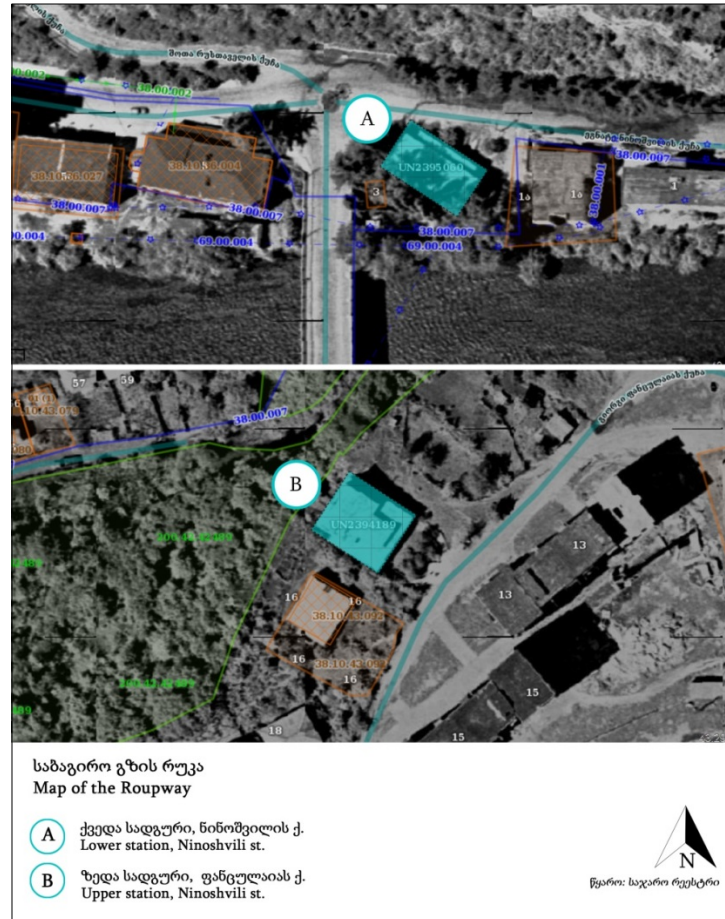
c) Technological part

Specialists of the field think that the engineering solution of the ropeway is unique. The technological component did not undergo any major changes.

d) Rolling stock (passenger wagons)

The ropeway has two passenger wagons that preserved their original form and are almost unchanged. Each wagon is designated for 18 passengers. They are an integral and important part of the ropeway. The wagons are made with clinchers, without welding.

The ropeway "Perevisa-Town" is a distinctive sample of the complex and unique system of Chiatura freight and passenger ropeway, both from architectural and engineering point of view. It holds an important place in the town transport system. The technological and architectural parts of the building are damaged due to the lack of proper maintenance. For many years no capital repair of the technological and architectural part of the ropeway has been conducted. Roof and water catching systems are damaged at ropeway stations. As a result the buildings are damaged and the electric and mechanical devices in the building are endangered due to the climate-related influence. The bearing structural parts of the buildings have no signs of damage. The buildings are preserved without any major alterations, almost in the original form. The physical condition of the ropeway stations and technological part are different and therefore the level of interference and requirements in relation to them are also different (Annex 2). The ropeway stations require repair and restoration, and the technical part requires immediate interference. It must be brought in line with the safety norms.



2.2. Administrative information

- 2.2.1. Country: Georgia
- 2.2.2. Contact person: Nana Zazanashvili, an independent expert of cultural heritage
- 2.2.3. E-mail: nano_zazanashvili@yahoo.com
- 2.2.4. Name and address of the building: ropeway "Perevisa-Town", lower station: Ninoshvili str. (Chiatura), upper station: Pantsulaya str. (Chiatura, village Perevisa)
- 2.2.5. Cadastral code of the plot of land: N/A
- 2.2.6. Type of the building/monument/sight: a,b,c,d: a monument related to the architectural, engineering, scientific, technical and industrial development
- 2.2.7. Main dates: the ropeway was constructed in 1953.
- 2.2.8. Current use: passenger ropeway
- 2.2.9. Cartographic information: lower station: Latitude 42°17'26.56"N Longitude 43°17'28.81"E ; upper station: Latitude 42°17'17.77"N Longitude 43°17'48.20"E
- 2.2.10. Ownership: From 2006 the facility is owned by LLC "Georgian Manganese"
- 2.2.11. Main stakeholders and responsible bodies:
 - Chiatura municipality board
 - LLC "Georgian Manganese"
 - National Agency for Cultural Heritage Preservation of Georgia
 - Municipal Development Fund

- Ministry of Economy and Sustainable Development
- LEPL Technical and Construction Supervision Agency

2.3. Needs and requirements

The passenger ropeway requires urgent restoration and rehabilitation to ensure safe transportation of passengers.

Rehabilitation of the historic ropeway will not only facilitate the improvement of the town transport system and living environment in the town, but it also has the potential to become the town's sight and tourist attraction. Despite the fact that foreign tourists are interested in Chiatura passenger ropeways, these facilities are not part of the list of tourist routes and sights, because safe transportation is not ensured. The project is expected to become a model example of rehabilitation of historic ropeways and promote the popularization and preservation of this type of cultural heritage throughout the country.

3. Restrictions and opportunities

3.1. Protection and restrictions

The passenger ropeway "Perevisa-Town" is a monument of cultural heritage and any interference should be made in accordance with the above status. The project documentation of the facility shall be prepared by the multidisciplinary project team staffed with highly qualified personnel in accordance with the Law of Georgia "On Cultural Heritage" and Resolution №57 of the government of Georgia of March 24, 2009 "On rules of issuing construction permits and the permitting requirements". Proceeding from the special character of the facility the project documentation of the technical part must be prepared by specialists of the field who have experience of ropeway rehabilitation, with the participation of architects-restaurateurs. Since the ropeway is the linear structure of the 5th grade, the Ministry of Economy and Sustainable Development of Georgia shall issue a permit for reconstruction and rehabilitation activities to be carried out in agreement with the National Agency for Cultural Heritage Preservation of Georgia. Implementation of restoration works will be monitored by the National Agency for Cultural Heritage Preservation. Any change in the design and implementation process that may harm the integrity and authenticity of the facility, must be agreed with the National Agency for Cultural Heritage Preservation and the Project Consulting Group.

The passenger ropeway "Perevisa-Town" is a monument related to the development of architecture, engineering, science, technology and industry. Thus, in the process of its restoration and rehabilitation, it is necessary to be cautious about the architectural and technological component. The existing engineering solution should be brought in line with the modern safety norms with the maximum protection of the technological part and the authenticity of the rolling stock.

3.2. Existing and additional functions

The passenger ropeway "Perevisa-Town" functions are unchanged from its original function. It also has a great tourist potential. Thus, the project of rehabilitation of the ropeway envisages ensuring safe and proper functioning simultaneously with strengthening tourist functions. This includes:

a) In the lower stations of the ropeway

- Arrangement of tourist information stand where information brochures, maps and other tourist information will be placed

a) In lower and b) upper stations of the ropeway

- Arrangement of exhibition space to exhibit material depicting history of Chiatura ropeways

4. Description of the project

4.1. Content of the project

4.1.1. Objectives and tasks of the project

The aim of the project is to support the improvement of Chiatura transport system and recovery of human environment by way of rehabilitation of "Perevisa-Town" ropeway, as well as preservation and sustainable development of the unique passenger ropeways, and strengthening tourist potential of the town.

The target group of the project are tourists and people of all ages living and working in the town.

Tasks of the project are:

1. Improve physical condition of the ropeway;
2. Ensure safe transportation of passengers;
3. Implement the model rehabilitation project and promote accumulation of knowledge and experience in this context;
4. Promote the industrial heritage of the town and raise awareness of population about its significance;
5. Put the ropeway on the list of tourist routes and sights of the country.

4.1.2. Expected results

Implementation of the project will bring social benefits to the users of the ropeway and the whole town. Tourism is one of the largest and fast-growing sectors of Georgian economy. According to the data of 2016, the number of tourists in the country increased by 7.6% compared to 2015 and the share of tourism in the GDP amounted to 7.1%. Thus, ensuring safe transportation, including the ropeway in the tourist routes and maintaining potential dynamics of growth of the tourism sector, will lead to the increase of the number of tourists.

Quantitative indicators:

1. The ropeway (lower and upper stations, technical part and rolling stock) is rehabilitated;
2. Safe travel is provided for at least 5000 passengers per month, including children and teenagers;
3. Minimum 30% increase in the number of tourist passengers in the first 5 years;
4. Exhibition space and tourist information centre are created in the stations of ropeway;
5. Information about the facility is provided in the tourist booklets and brochures;
6. The number of tourists increased in the town.

Qualitative indicators:

1. Increase in safety and quality of passenger ropeway transport system of Chiatura;
2. Maintenance of the unique industrial facility of the town and ecologically clean transportation;
3. Broadening professional knowledge and experience about rehabilitation of similar objects;
4. Increase of knowledge and interest in the town's industrial heritage;
5. Enhance the quality of life in the town.

4.1.3. Vision

The project implies rehabilitation and restoration of the ropeway which has high historic, cultural and social significance, maintaining its original function and thus ensuring passenger safety. Also adding new employment to the ropeway that will facilitate the development of the facility and tourism potential of the town. The wide range of opportunities and social impacts include improving the town transport network and thus raising the quality of life in the town, enhancing professional qualification of the staff, promoting industrial production and promoting awareness raising of the importance of industrial cultural heritage throughout the country.

4.2. Development of the project

4.2.1. Evaluation of activities

The implementation of the ropeway rehabilitation project will take approximately 30 months. The proposed period and phases are general. The detailed budget is given for the second stage of the project, which implies preparation of the project documentation of the building. A general assessment of funds required for the rehabilitation works was made on the basis of interviews conducted with the experts and examination of the cost-estimates of the rehabilitation works of ropeways carried out previously.

Stage 1: Completion of negotiations with LLC "Georgian Manganese" and transfer of the ropeway to the municipal ownership-1-4 months

Activity 1.1

Name: Finalizing negotiations with LLC "Georgian Manganese" regarding transfer of the ropeway to the municipal ownership

Term: The 1st and 2nd months of the project

Description: A series of meetings will be arranged with the participation of LLC "Georgian Manganese", Chiatura Municipality Representatives and other actors, within the



framework of which the issue of transfer of the ropeway to the municipal ownership will be reviewed and agreed upon.

Result: Agreement reached and conditions of transfer of the facility defined.

Expected cost: On the basis of a preliminary agreement the ropeway will be transferred to the town gratuitously.

Activity 1.2

Name: Agreement and formalization

Term: The 3rd and 4th months of the project

Description: After the agreement is reached, official registration of municipal ownership will be undertaken within which the cadastral boundaries of the bottom and upper stations of the ropeway will be established.

Result: The cadastral data of the facility is established and it is registered in the National Agency of Public Registry as a municipal property.

Expected cost: 7000 GEL

Stage 2: Preparation of detailed design and cost estimate documentation-5-12 months

Activity 2.1

Name: Preparation of the Terms of Reference for compilation of project documentation and cost estimate documentation

Term: The 5th month of the project

Description: Based on technical and economic research, with the participation of local experts the terms of reference will be prepared for announcing tender for procurement of project documentation. The terms of reference will provide job specification and requirements.

Result: Prepared Terms of Reference.

Expected cost: 1,500 GEL

Activity 2.2

Name: Announcement of the tender and selection of the winner

Term: The 5th-7th months of the project

Description: Chiatura municipality or the relevant state agency shall announce a tender on procurement in accordance with the legislation of Georgia. The responsible agency will identify the winner subcontractor, with whom the agreement will be signed.

Result: Subcontractor is selected.

Expected cost: 0 GEL

Activity 2.3

<i>Name:</i>	Preparation of design and cost estimate documentation
<i>Term:</i>	The 7 th -12 th months of the project
<i>Description:</i>	Subcontractor will prepare the design and cost estimate documentation, which includes survey documentation and project of the architectural part of the building and the technological part.
<i>Result:</i>	Design and cost estimate documentation are prepared
<i>Expected cost:</i>	146,000 GEL

See below the detailed description of design and cost estimate documentation.

Stage 3: Implementation of rehabilitation works -13-29 months

Activity 3.1

<i>Name:</i>	Preparation of terms of reference for the implementation of rehabilitation works
<i>Term:</i>	The 13 th month
<i>Description:</i>	Based on the design and cost estimate documentation, local experts will prepare terms of reference for the implementation of rehabilitation works
<i>Result:</i>	Terms of reference is prepared.
<i>Expected cost:</i>	1,500 GEL

Activity 3.2

<i>Name:</i>	Announcement of the tender and selection of a winner subcontractor
<i>Term:</i>	The 13th-15th month
<i>Description:</i>	Chiatura municipality or the relevant state agency shall announce a tender on procurement in accordance with the legislation of Georgia. The responsible agency will identify the winner subcontractor, with whom the agreement will be signed.
<i>Result:</i>	Selected subcontractor
<i>Expected cost:</i>	0 GEL

Activity 3.3

<i>Name:</i>	Agreement of the project
<i>Term:</i>	The 16th-17th month
<i>Description:</i>	Subcontractor will agree the project with the National Agency for Cultural Heritage Preservation and the Ministry of Economy and Sustainable Development in accordance with the legislation of Georgia.
<i>Result:</i>	The project is agreed
<i>Expected cost:</i>	7000 GEL

Activity 3.4

<i>Name:</i>	Rehabilitation works
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<i>Term:</i>	The 18th-29th month
<i>Description:</i>	<p>The selected subcontractor will perform rehabilitation and restoration works. Restoration of upper and lower stations of the ropeway will be carried out:</p> <ul style="list-style-type: none"> - Roofing at both stations will be replaced - Water catching systems will be arranged - Restoration and rehabilitation of windows and doors - The basement of the lower station will be strengthened and restored - Façade plastering and finishing will be restored - The interior of the waiting hall and other auxiliary facilities will be restored and painted - New platforms will be arranged at the lower station - Land plots of the ropeway stations will be cleaned and improved - An exhibition space and information stand will be arranged - Stations will be equipped with new furniture - Technical part will be repaired - Passenger wagons will be restored and rehabilitated and so on.
<i>Result:</i>	Rehabilitation of the facility is completed
<i>Expected cost:</i>	1,800,000 GEL

Stage 4: preparation of exhibition and information centre (simultaneously with the 3rd station) – 24-29 months

Main activities

<i>Name:</i>	Arrangement of exhibition and information centre
<i>Term:</i>	The 24th-29th month
<i>Description:</i>	<p>The selected subcontractor will cooperate with Chiatura municipality and based on the design documentation an exhibition reflecting history of Chiatura ropeways and tourism information stand will be arranged:</p> <ul style="list-style-type: none"> - Exhibition concept will be developed - Archive documents will be collected - Exhibition material will be prepared and exhibited (banners with photo and text material) - Information stand will be arranged - Brochures, maps and other informational print products will be prepared for the stand
<i>Result:</i>	The project agreed
<i>Expected cost:</i>	20,000 GEL

Stage 5: Staff training (simultaneously with stage 3 and 4) – 26th-27th month

Main activities

<i>Name:</i>	Staff training
<i>Term:</i>	The 29 th month
<i>Description:</i>	The ropeway staff will be trained on ropeway exploitation rules and maintenance of the information centre.
<i>Result:</i>	5-6 employees know new exploitation norms and are ready for the exploitation of the ropeway.
<i>Expected cost:</i>	4,000 GEL

Stage 6: Arrangement of final activities of the project – the 30th month

Main activities

<i>Name:</i>	Arrangement of final activities of the project
<i>Term:</i>	The 30 th month
<i>Description:</i>	The party participating in the project will arrange a final event where project results will be summarized and evaluated. The interested professionals will have an opportunity to familiarize themselves with the experience accumulated during the rehabilitation process.
<i>Result:</i>	1 final event will be arranged
<i>Expected cost:</i>	5,000 GEL

Approximate total cost of the project GEL1,992,000 / ~ 773,800 € . (See timeframe, stages and budget in Annex 3)

4.2.2. Cost estimation

Detailed calculation was prepared for preliminary and project works. Estimations were done for the architectural and technical parts of the building (Stage 2).

List of design documentation and funds			
Nº	Name of the project work	Cost, GEL	Cost, ~ €
1	Geological Survey (Stations, Supporting Structures, Expertise)	5000	2000
2	Structural sustainability report		
	Stations	1000	400
	Foundations of the supports	1000	400
	Reinforcement works project	5000	2000
	Structural part examination	500	200
	Total	7500	3000
3	Calculation of technological part		
	Conclusion on the condition of technological devices (wagons, supports, rope, pulleys, management)	12000	4600

	Re-profiling	10000	4000
	Selection of the drive	5000	2000
	Electric part design	2000	800
	Electric drive management project	10000	4000
	Expertise of the technological part of the project	8000	3000
	Construction operations project, schedule	4000	1500
	Cost estimate of technological part	5000	2000
	Total	56000	21900
4	Restoration project (stations 730m² and adjoining territory ~ 1600 m²)		
	Measurement drawing works (drawings in scale and details with indication of damage)	5000	2000
	Restoration design	22000	8500
	Structural design	1500	600
	MEP design	700	300
	Electricity design	700	300
	Construction operations design, schedule	700	300
	Cost estimate for the architectural part	2000	800
	Total	32600	12800
5	Fees and unexpected expenses	44900	17300
Sum		146000	57000

4.2.3. Possible sources of funding

Funds required for the implementation of the project will be attracted from the following organizations:

- Municipal Development Fund
- National Agency for Cultural Heritage Preservation
- International grants
- Chiatura Municipality

4.2.4. Description of the investment and ways of its justification

Rehabilitation of the ropeway within the framework of the proposed feasibility study is much more efficient in terms of the volume of primary capital and subsequent exploitation costs, than the construction of a new ropeway that costs about EUR 10 million.

Currently travel by the ropeway is free. In case of implementation of the project a minimum tariff can be set and tariff policy can be determined taking into account difficult socio-economic situation of citizens.

The nominal tariff can be 20 tetri. Pupils, socially vulnerable persons, pensioners and other vulnerable groups will enjoy free and privileged transportation in accordance with the social policy of Georgia.

Taking into consideration the current number of passengers and the above conditions, the annual income from sales of tickets will be about GEL 7500.

Taking into account the expected number of visitors, the number of passengers and sold tickets will increase.

4.2.5. Expected impact

- Safety of passengers will be ensured
- Chiatura transport system will improve
- The quality of life in the town will increase
- Chiatura Industrial Cultural Heritage will be promoted
- The level of awareness on the importance of industrial heritage will increase among the population
- The tourist image of the town will be strengthened - the ropeway will become part of tourist routes
- Professional knowledge will be increased in terms of rehabilitation of industrial and engineering facilities
- Local industrial potential will be applied

4.2.6. Risks

Administrative and financial issue

- It is impossible to complete the negotiations with LLC "Georgian Manganese" with regard to transfer of the facility to municipal ownership;
- Failure to find financial resources or mobilize insufficient funds that cannot ensure high-quality fulfilment of the project
- Weak coordination between the project participants

During rehabilitation works

- Failure to select qualified staff for project and rehabilitation works
- Implementation of inappropriate, undue, irrevocable intervention
- Unforeseen difficulties related to the technological component

After the implementation of the project

- Invalid tariff policy and reduction of the number of passengers and increased demand for motor transport

4.3. Development scenarios

Several scenarios of facility development can be considered:

1. Leaving as it is: Due to the failure of technological part, safety of passengers is not ensured and there is a risk of accidents. Such approach will also cause degradation of physical condition of the building which will increase risks and rehabilitation costs.

2. Stopping the facility: For citizens it will become more difficult to move around the town. The use of motor transport will increase. Citizens' expenses for transport will increase. It will cause deterioration of physical condition of the monument and give rise to the threat of its destruction.

3. Rehabilitation – proposed scenario: passengers' safety will be ensured. A cultural heritage monument and ecologically clean transport will be maintained and other above-mentioned benefits will apply.

4.4. Management and sustainability

4.4.1. Project management

The management of the implementation of the rehabilitation project will be performed by the Project Implementing Group, which will coordinate and monitor the process with the objective of its timely and effective implementation, assess the results and increase the visibility of the project. The Project Implementing Group will be staffed with permanent and temporary members. Representatives of Chiatura Municipality, the Ministry of Economy and Sustainable Development, National Agency for Cultural Heritage Preservation and Funding Organization(s) will be constantly involved in the project management. At the initial stage of the project, prior to transfer to municipal ownership, the representatives of LLC "Georgian Manganese" will be involved in the process.

Local specialists will be invited to participate in the project management process, who will provide the group with expert advice on specific issues (expert evaluation of technological solutions, evaluation of restoration works, strengthening of tourism attraction, etc.) under supervision of the project coordinator.

4.4.2. Future management of the facility

The National Agency for Cultural Heritage Preservation and LEPL Technical and Construction Supervision Agency of the Ministry of Economy and Sustainable Development of Georgia, responsible for its safe exploitation, shall monitor the facility at the national level.

At the local level the ropeway will be managed by Chiatura municipality, namely LLC "Chiaturbagirgzebi" subordinated to it, which has long experience of ropeway management.

Currently the ropeway operates every day and the route is customized with the industrial cycle. It works in two shifts and 12 people are employed on it daily, 24 people are employed on a monthly basis. The project envisages creating 2 jobs for informational stands and tourists.

In such case proper functioning of the facility, its sustainability and public access will be ensured.

4.4.3. Estimated expenses

The estimated annual cost of maintenance and operation of the ropeway includes employee salary costs and ropeway maintenance costs, which in turn implies monitoring, expertise, repair, renewal of equipment of the ropeway, electricity expenses, etc.

Estimated annual costs of maintenance and operation of the ropeway			
№	Description of activities	GEL	~ €
1	Maintenance (expertise, repair, upgrading equipment, electricity expenses etc.)	240,000	92,300
2	Salaries of employees (26 employees)	124,800	48,000
	Total	364,800	140,300

4.5. Evaluation of viability

Rehabilitation of the ropeway will have a significant social effect for the local population. Traveling by the ropeway will be safe, which in turn will help improve the quality of the town's transport system and increase the quality of life in the town.

Under the proposed project, rehabilitation of ropeway is mainly envisaged by involvement of local staff, workforce and industrial capacity. It is therefore expected that the project will enhance the qualification of the local staff, help accumulate knowledge in the rehabilitation of industrial heritage objects and promote industrial activity.

The project will have a positive effect in realization of the value and importance of cultural heritage and will also facilitate strengthening of the town's tourism potential. After passengers' safety is ensured, the facility will be put in the list of tourist routes, which will facilitate its large-scale popularization.

SWOT analysis

Strengths	Weaknesses
<ul style="list-style-type: none"> - A unique monument of industrial heritage - Did not undergo any substantial change - An important component of the transport system of the town - Environmentally clean transport - Central location in the town - Wide target audience - Qualified local staff 	<ul style="list-style-type: none"> - Severe physical condition of architectural and technological parts - Absence of financial resources - Lack of municipal budget - Low awareness of the importance of the facility at the national level - Private ownership
Opportunities	Threats
<ul style="list-style-type: none"> - The country's growing tourism sector - Increasing knowledge and interest towards industrial heritage at the country and local level - Proximity to architectural and natural sights of Imereti - Consideration of tourist routes - International funding resources - Good transport connection with the roads of national importance 	<ul style="list-style-type: none"> - Unstable economic situation - Unsustainable political situation - Dangerous geological processes in the proximity of the facility - Fruitful cooperation between the participating parties cannot be established - Restoration process will be conducted inconsistently with the interests of the monument

Existing weaknesses and expected threats should be well analysed and studied, although the project's high social importance and the expected positive outcome outweigh them.

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Legislative acts:

1. Order No. 2/255 of 11 August 2016 of the Directorate General of the National Agency for Cultural Heritage Preservation of Georgia on the Award of the status of Cultural Heritage Monument
2. Law of Georgia on Cultural Heritage
3. Decree of the Government of Georgia of 24 March 2009 on rules of issuing construction permits and the permitting requirements

Archives

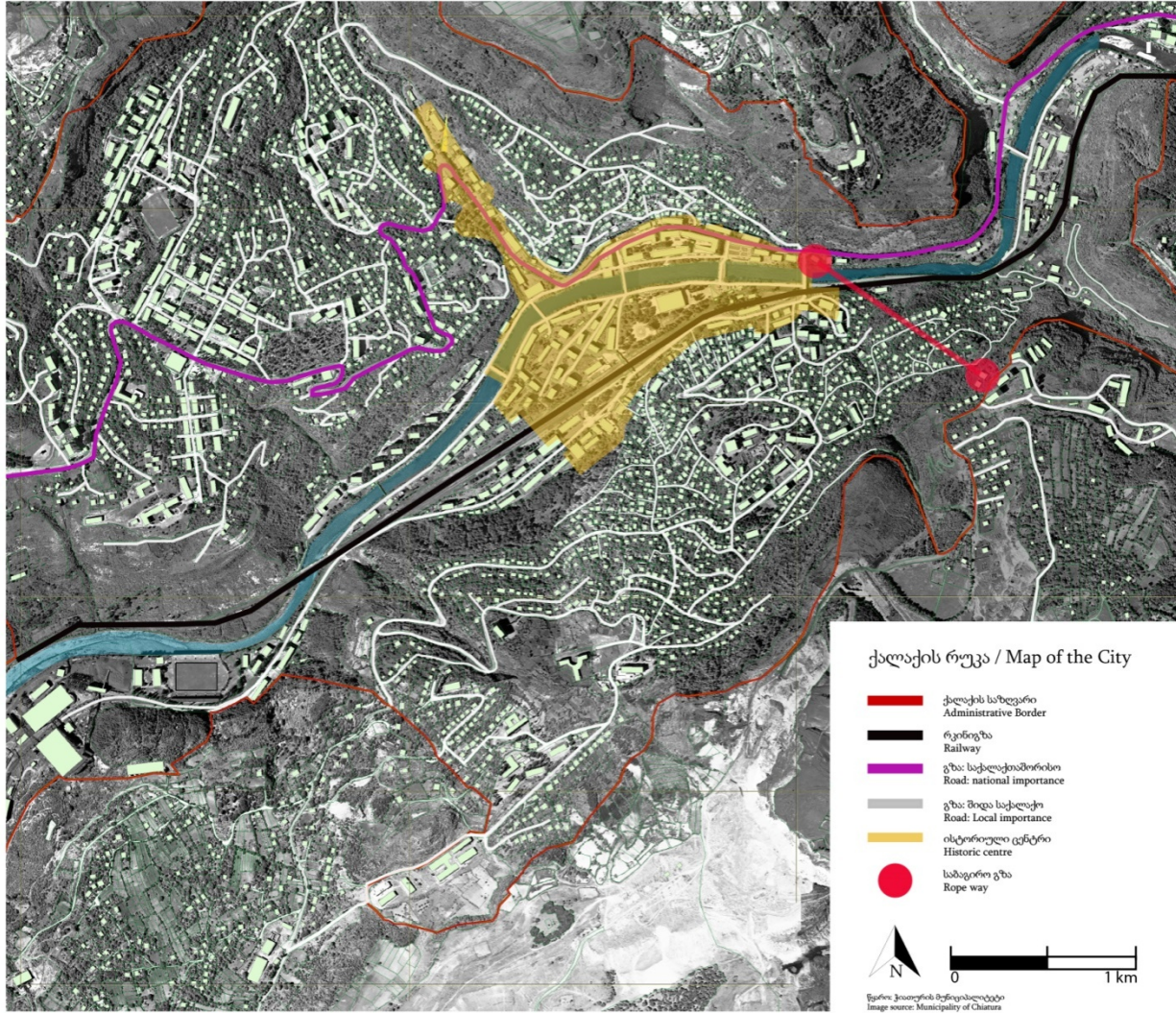
1. Technical-economic indicators of Chiatura ropeways, LLC "Chiaturbagirgzebi" archive
2. Archive of former Chiatura "Manganese trust" museum
3. Personal archive of Iura Nadiradze
4. Personal archive of George Pantsulaya

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Annex

Annex 1 – Location of the ropeway in the town

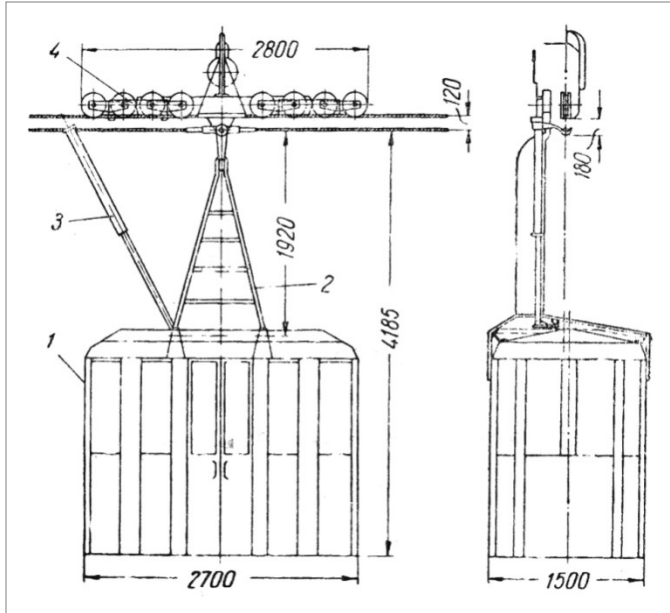


Annex 2 – Detailed description of the components of the ropeway

№	Picture	Assessment of physical	Risk assessme	Priority for intervention	Remarks
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		condition (from very bad to good)	nt A-D	High-average-low	
1.	 <p>Lower station Address: Chiatura, Ninoshvili str.</p>	Average	B	High	Cadastral boundaries for the plots of land for the upper and lower stations of the ropeway are not defined.
2.	 <p>Upper station Address: Chiatura, village Perevisa, Pantsulaya str.</p>	Average	B	High	Cadastral boundaries for the plots of land for the upper and lower stations of the ropeway are not defined.
3.	 <p>Rolling stock (passenger wagons)</p>	Bad	B	High	
4.	Technical part of the ropeway	Bad	A	High	

Annex 3 – Detailed description of activities (timeline, budget and responsible entities)



Passenger wagon

I. Cogan, G. Pantsulaya, passenger ropeway to pit, illustrations of an article, 1950.

Annex 5 – Historic photos



Upper and lower stations of the ropeway, 1950, archive of Chiatura Manganese trust museum;





Construction of the ropeway, 1951-52, Iura Nadiradze archive

Annex 6 – Current situation

Lower station of the ropeway, 2016.



Upper station of the ropeway, 2015-16.





View from the passenger wagon, 2016



Territory adjoining the upper station of the ropeway, 2016





Passenger wagon, 2015-16