

Community-led Urban Strategies in Historic Towns (COMUS)



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Goris Urban Streets Rehabilitation

Feasibility Study

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1. Executive Summary

1.1 The goal of the programme

The goal of the proposed programme is to ensure the protection and maintenance of the historic centre of Goris, through the restoration of its historic environment and the creation of Goris as one of Armenia's tourism destinations, enhancing the living conditions of its inhabitants.

1.2 Main objectives of the programme

The objective of the programme is: to reconstruct the pavements of the main streets and walkways in the vicinity of the historic centre; to modernize the area's drainage systems; to construct cycle lanes; and to increase the provision of access for disabled people.

1.3 Specific objective

The programme's specific objective is to increase the livelihoods of the people of Goris town, by creating new opportunities for employment and business for the local population.

1.4 Background

Goris town is located in Zangezur, 250 km from Yerevan in the southeast of Armenia. The first settlement was located in a wider stretch of an uneven area of a canyon, a rocky, hilly zone, characterised by conical pyramid-like rock outcrops. The site occupied an area of 5.5-6 ha. It was adjacent to a commercial route, its layout was remarkable. Many folk houses typical of the region of Zangezur were built there, but these have been gradually abandoned. In the beginning of the 19th century it had 119 households.

In the 1850s, the new city of Goris began to develop on the right bank of the river Vararakn. Building was particularly intensive during the 1870s under the governance of the Prefect, Staritski. Manuchar-Bek Melik Hyuseinyan, a local ruler, took great interest in the town's development. The town followed the designs of a German architect. The new master plan of Goris (1947) was designed according to the principles of Russian urban planning of the 18th century. Due to the terrain, a perpendicular street network was laid out, with a slight northern alignment. Streets intersecting at different intervals creating square and rectangular residential districts (106 x 106m, 106 x 212m) and a public centre (212m x 212m) were created. The axial streets measured 24m and 17m. The pavements were paved and planted mostly with mulberry, but also cherry and sour cherry trees. Drainage ditches were constructed in parallel to the pavements.

1.5 The current status

In 1947, a detailed plan of the city of Goris was developed by Architect P. Khoyetsyan of the "Haypetnakhagits" institute (Arm State Project), which extended the existing rectangular network up the northern and western slopes of the settlement, causing several problems:

- opposite pavements of different levels, particularly in the longitudinal streets to the west of Syunik Street;
- slope in western sections of latitudinal streets is too steep;
- the slope was so steep on one section of Bakhshyan Street (between Sisian and Khorenatsi Streets) that a stairway was added, making the section impassable for transport;

- streets and pavements that were formerly cobbled are now asphalted;
- pavement boundary stones have deteriorated and in some areas are missing;
- loss of benches near the main entrances of residential buildings: these were sites where people gathered, exchanged news or just chatted and watched passers-by;
- Partially destroyed and damaged, often blocked drainage through open ditches alongside the streets,
- sections of ditches mainly near the river (where the storm ditches lead) are waterlogged.

1.6 Proposed phases of the programme

The Urban Streets Rehabilitation programme should be implemented according to the following phases:

- rehabilitation of drainage ditches;
- reconstruction of main pavements and walkways in the historic centre;
- installation of benches and waste bins;
- provide accessible routes for people with disabilities, particularly at crossroads;
- ensure there is sufficient street illumination in the historic centre;
- construction of bicycle lanes parallel to pavements.

1.7 Methodology

The following methods will be used:

- the many spectacular architectural structures found in the streets of the historic centre will be enhanced through the sympathetic restoration of the historic environment, particularly pavements and walkways;
- in the historic core of the city, streets and pavements, formerly cobbled, but now asphalted, will be restored using local materials to return the centre to its original appearance. streets
- outside of the protected zones cobbled pavements may be enough;
- repair and replacement of boundary stones;
- street furniture i.e. benches re-set next to the main entrances of residential buildings will rehabilitate the old city-ambience;
- installation of steel grating on the drainage ditches between the carriageway and pavements (which are both on the same level). This will preserve the original dimensions but allow people in wheelchairs to cross the streets without difficulty. If not completely, as a minimum, drainage ditches should be covered at pedestrian crossings, garages and courtyards entrances.

1.8 Overall assessment of budgetary needs and phases

Item	Unit	Unit cost (AMD)	No of Units	Total cost (AMD)	Total cost (€) 1EUR=530 AMD
Rehabilitation of drainage system	m	28,000	25,000	700,000,000	1,312,582
Design drawing for Rehabilitation of drainage system				70,000,000	131,258
Restoration of pavements	m ²	70,000,000	25,000	1,000,000,000	1,875,117
Design drawing for Restoration of pavements				100,000,000	187,512
Installation of steel gratings	m ²	40,000	40	2,800,000	5,250
Illumination of the streets	l	500,000	50	25,000,000	47,169
Design drawing for illustration				1,250,000	2,358
Installation of benches	#	50,000	30	1,500,000	2,813
Other expenses				1,000,000,000	1,875,117
Total				2,901,550,000	5,441,051

2. Introduction

2.1. Technical assessment

There are no major technical difficulties in implementing the programme. The only issue may be the fact that some owners have extended their houses without permission and thus are violating the common landscape. With the approval of the programme, individual construction should be forbidden in the territory without the special permission of the authorities and most extensions not in keeping with the historic environment should be eliminated. This should be carried out so as to create the least harm to local inhabitants as possible.

2.2. Financial assessment

Preliminary estimations for the implementation of the full programme total 2,901,550,000 AMD (€5,441,051). Securing this financing is not unrealistic, if the government, international organizations, NGOs and foundations working in the field approve the programme and accept it as a high priority. Furthermore, the works can be done phase by phase.

2.3. Existing fabric and conditions

It is planned that local stones and materials will be used for the main restoration works. All the necessary materials are available in Armenia and there will be no problems obtaining them. In the region and in the Republic, there are many experienced constructors with the necessary skills and knowledge, however, it is likely they will benefit from additional training.

2.4. Design (and drawing) of the proposals

The design and the drawings can be developed later.

2.5. Responsible authorities

The relevant authorities are: The Ministry of Culture, Syunik Marzpetaran (regional government) and Goris Municipality, as well as the owners of residential houses and commercial buildings.

2.6. References

Practical research in Goris was conducted between September-October 2016. For programme formulation and presentation, the following materials and articles were used:

- Goris Historic-Cultural Justification Plan, the Ministry of Culture, Cultural Heritage Research Center, Yerevan 2011
- Hakhverdyan S., The history of Goris, Yerevan, 2005
- Harutyunyan V., Plans and construction of cities in Eastern Armenia at the end of the 19th century and beginning of the 20th century, "Historical and Philological Journal», 1977, N 4
- Hakobyan T., the cities of the Soviet Armenia, Yerevan, 1977
- Abraham Cretaci, History, Yerevan, 1973
- Papukhyan N., Syunik folk architecture, Yerevan, 1972
- Hakobyan T., Armenia's historical geography, Yerevan, 1968
- Mnatsakanyan S., Syunik school of Armenian architecture, Yerevan, 1960
- Alishan Gh, Sisakan, Venice, 1893

3. Outline of works

3.3. Description of investment / project

The arched entrances and nearby benches have long been typical of the urban and architectural environment of residential houses and should be maintained. Locals would love to sit in front of their houses to exchange news or just chat and watch passers-by. Now many of these benches are missing.

The installation of new benches will help to preserve this urban environment. The proposed design is based on the old urban planning structure with the view of partly restoring it, enhancing its role as a destination for tourism. Planned activities will not only ensure the protection of the monuments but also create new opportunities for employment through tourism development and by stimulating civic life.

For surface drainage, existing ditches can be used, but it is necessary to completely reconstruct the ditches with local basalt stones, widening and deepening them at the same time. Segments close to the river estuary, which are destroyed and damaged will also be rebuilt, thus ensuring the unobstructed flow of water into the river and preventing eutrophication.

The present width of the main streets is sufficient for separate bicycle lanes adjacent to the pavements, either as two-sided adjutants to one pavement or one-sided adjutant to each. It is preferable to separate the bicycle lane from the carriageway by stone, concrete or rubber kerb stones for security reasons. Priority should be given to the use of local stones. Based on the existing infrastructure we propose that bicycle lanes be added to the longitudinal and latitudinal roads east from Syunik Street. Besides we propose that Satyan Street, leading to Old Goris, should be reconstructed to include transformation into a bicycle lane. Special attention should be paid to the riverside (Getapnya) street that should be extended up to the Stadium and special bicycle lanes, runways and paths should be constructed alongside all the streets in riverside areas.

Reviewing the traffic of Goris, as well as further development, and considering how important it is to physically protect both monuments and the health of inhabitants we propose that heavy vehicles be excluded from Ankakhutyan and Mashtots Streets, as well as in areas between Davit Bek Street and the city centre.

In the future, in parallel with the cultural and recreational development of the city, the section of Komitas Street between Mashtots and Makich Streets and the stretch of Mashtots Street between Komitas and Gusan Ashot Streets, as well as the entire public centre should be pedestrianised.

3.4. Programme implementation model

The historic centre of Goris is included in the list of historical monuments of Armenia. Thus, it would be preferable if the Ministry of Culture of Armenia and Goris Municipality work in partnership to implement the programme, from procuring the design, to commissioning restoration and rehabilitation works and further operation and maintenance of the site.

3.5. Inventory of the framework conditions

The core centre of Goris is a monument of national importance. Therefore, all further constructions in the mentioned area must be authorized not only by Goris Municipality, but also approved by the Ministry of Culture.

3.6. Outcomes and benefits

Outcomes:

- fully operational and updated drainage system;
- improved secondary streets and main streets;
- benches and recycling bins next to the residential houses;
- adjusted passes for disabled and strollers;
- bicycle lanes;
- pedestrian areas;
- street illumination.

Benefits:

- the primary beneficiaries of the programme will be local inhabitants, as thanks to the programme livelihoods will improve;
- more opportunities for disabled people;
- as Goris becomes a popular destination for tourism, local people will have the opportunity to transform and adapt their houses into small hotels, B&Bs, restaurants, souvenir shops and stores trading labelled local food and other small businesses;
- new localities suitable for offering employment to local inhabitants both during the programme implementation, and after it.
- Armenian and international tourists will enjoy new touristic opportunities, including the pedestrianised areas and bicycle lanes;
- Old Goris' preservation is not only of local importance, but for the historical and cultural heritage of Armenia as a whole.

3.7. Legal framework

Urban development in Goris is by the Government Protocol N 21 from 2012. May 31. All construction will be strictly controlled by the Municipality of Goris.

3.8. Social and Economic feasibility

The social feasibility of the programme is clear, and has been detailed in the report above. The economic feasibility will require special assessment. As the town is not far from the roads to Stepanakert, Kapan, Meghri and Iran, it is not unfeasible that a new destination for tourism may become a popular stop-over for travellers. Obviously, some unconventional steps may be undertaken to guarantee the operation and maintenance of the site into the future. As the site will benefit from tourist development, it maybe reasonable to introduce a visitor tax, which together with the Municipality budget, may be enough to fund running costs and small-scale restoration, as and when required. When the infrastructure has been completed, the Ministry of Culture intends to organize events at the site, promoting the tourism and generating income accordingly.

3.9. Implementation strategy

Below is the proposed plan of action:

- produce design guideline;

- produce design package;
- conduct a pilot project in a quarter of the city;
- rehabilitate the drainage system;
- restore pavements and streets;
- install accessible crossing points for people with disabilities;
- construct bicycle lanes;
- install small street design elements (benches, bins, tourist information panels, maps, etc.);
- restore street illumination system with LED lamps;
- transform some areas into pedestrian only areas.

3.10. Sustainability

The owners of restored houses will take full responsibility for the operation and maintenance of their properties. The visitor tax, together with Municipality and the Ministry of Culture funding, may be enough to cover the site's operational budgets, thus ensuring its sustainability. Responsibility for maintaining the ditches falls to Goris municipality, which has a budget for this activity.

4. Risk Assessment

The risks to the programme's implementation are considered to be minimal. Great care should be taken to preserve the historic environment, particularly pavements and drainage ditches, so as to maintain the traditional character. A detailed and professional plan and design will be necessary, to ensure that pedestrian areas do not disturb the usual traffic.

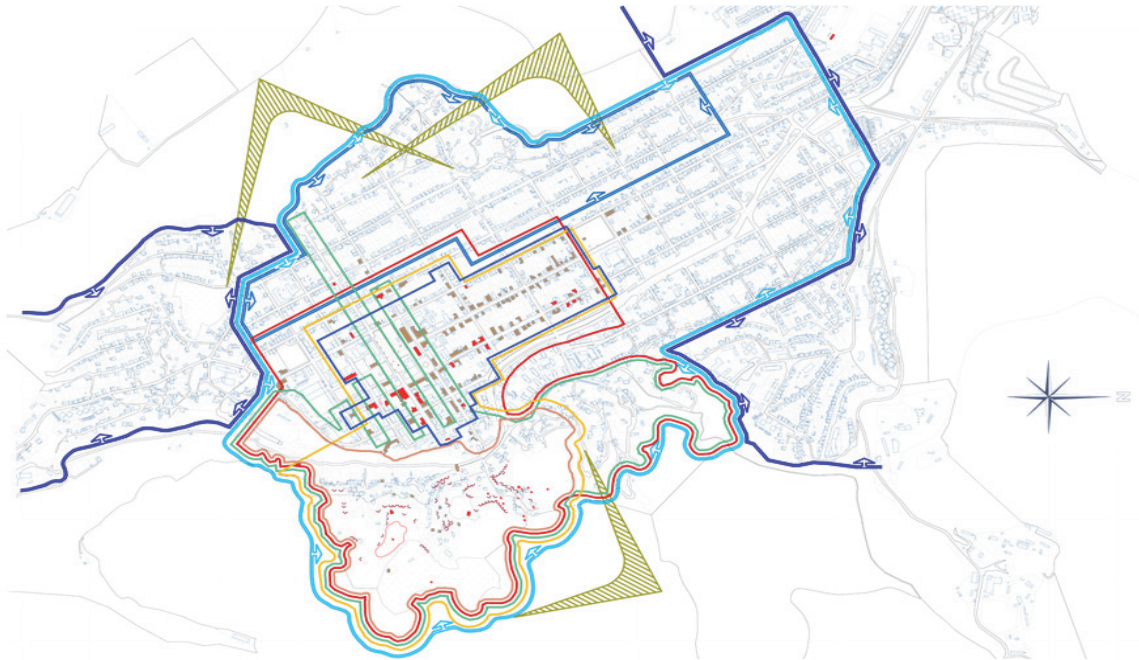


Fig.1. Map of Goris and its protection zone (approved by Ministry of Culture of RA 2012)



Fig.2. An example of reconstruction plan of one of Goris' streets

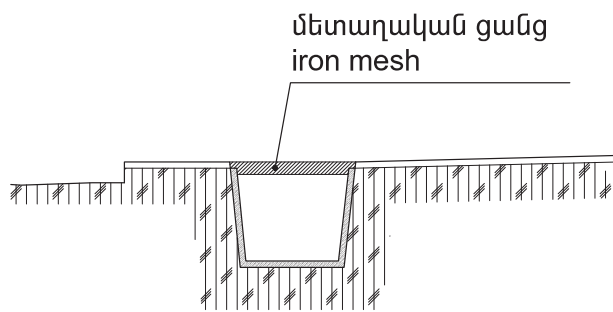


Fig.3. Plan of steel grating on the ditches



Fig.s 3 & 4. Drainage ditches



Fig.5. Syuinik Street

5. Activities and responsible persons/organizations

No	Description of activity	Responsible entity	Timeline
1	Formulating of project management team	Local Government Ministry of Culture of the Republic of Armenia	Month 1 > Month 2
2	Procurement of design works	Local Government Ministry of Culture of the Republic of Armenia	Month 2 > Month 4
3	Procurement of restoration works	Local Government Ministry of Culture of the Republic of Armenia	After Month 6
5	Operation and maintenance of the site	Owners of houses and businesses, Local Government Ministry of Culture of the Republic of Armenia	After the end of restoration

6. Development of the FS

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