

TOR for Development of Master Plan for Devil's Bridge Natural Monument.

WWF Germany together with WWF Armenia is implementing project entitled Establishment of Community-based Models for Biodiversity Protection in Ecological Corridors in the Southern Caucasus (Armenia).

The main objective of the project is to assist in diversifying livelihoods by creating incentives and monetary benefits for local communities to maintain biodiversity and ecosystem services, thereby decreasing unsustainable natural resources use and overgrazing.

An important component of the project is the development of a master plan for the rehabilitation of Devil's Bridge Natural Monument (Output 1.5.).

Area description:

Devil's Bridge Natural Monument is located in Vorotan River canyon in southern Armenia at c. 2km NE of Tatev village (39.395543°N, 46.257779°E, 1,021 meters above sea level). The canyon is considered as one of the deepest in the Caucasus. Its steep slopes covered with rock massifs, outcrops and screes and are covered with forest, shrubs and xerophytic vegetation. The canyon is home to rich biodiversity represented with a number of threatened species listed in National and International Red Lists.

The Devil's Bridge is formed of travertine rock with a system of numerous crevices, grottos and stalactite and stalagmite formations overhanging the Vorotan River stream. The river under the Devil's Bridge is fed by a number of concealed mineral springs. The river stream continues south-eastwards and at about 900 meters from the Devil's Bridge it runs by a remarkable cultural monument – the Big Tatev Desert built in 1660's. Master plan proposes to incorporate the Devil's Bridge and the environs of the Big Tatev Desert into single management unit. The approximate area of the target area is about 11 ha (see attached maps).

Additional information about the target objects:

<http://hushardzan.am/en/1706/>

<http://www.traveltoarmenia.am/gd/natural-sights/devils-bridge/96/>

Objective:

The Devil's Bridge, while being some of the most important natural monuments and tourist destinations in southern Armenia, is currently in poor shape. The main problems are: littering, unguided/uncontrolled movement of visitors, "wild" BBQ-events of local population and visitors, expansion of shrubs and bushes, poor pathing and lack of information facilities. Therefore the project intends to develop a comprehensive master plan for Devil's Bridge together with the Big Tatev Monastery and their environs (see Fig. 1 and GoogleEarth file attached).

The consultant shall be assigned with the following task.

1. Visit the Devil's Bridge, the Big Tatev Desert and assess their current conditions and the state of their immediate surroundings (document overall appearance, littering, visiting facilities, path-ways, recreation facilities, overgrowth by shrubs and bushes, accessibility, etc.).
2. Together with WWF GIS-Expert, map Devil's Bridge, Big Tatev Desert and their surroundings.
3. Develop a comprehensive master plan for the rehabilitation and beautification of Devil's Bridge Monument and the Big Tatev Desert areas. This plan shall include recommendations and proposals for:
 - (i) Cost-efficient quick-fix measures (such as planting of hedges, construction of barriers from natural stone, etc.).
 - (ii) Identification of guide-ways for visitors through the monuments (delineation of path-ways, construction of fences, etc.).
 - (iii) Improvement of overall appearance with removal of garbage.
 - (iv) Removal of shrubs and bushes where necessary; proposals for replanting of trees and autochthone plant species.
 - (v) Replacement of existing infrastructure such as iron fences; greening of concrete walls, and application of other natural cosmetic works where appropriate.
 - (vi) Improvement or replacement of sanitary facilities (change rooms, rest-rooms etc.) and water basins.
 - (vii) Improvement of communication messages (sign boards, etc.).
 - (viii) Design of a caretaker booth combined with ticket selling.
 - (ix) Informative walking-trails to other places of interest in the immediate surroundings.
 - (x) Design of a small accessibility-bridge for Devil's Bridge.
 - (xi) Identification and design of recreation facilities for picnic and camp sites (based on existing material to be provided by WWF).
 - (xii) Design of parking area.

Outputs of the consultancy:

The main output of the assignment shall be a comprehensive master plan for the rehabilitation of Devil's Bridge and the Big Tatev Desert areas. The report shall be in English language and shall include:

1. An assessment of the current conditions of Devil's Bridge Nature Monument, the Big Tatev Desert and their immediate surroundings.
2. Development of a comprehensive master plan for Devil's Bridge, the Big Tatev Desert and their immediate surroundings (see details above). This master plan must entail maps, technical drawings of infrastructure to be constructed, budget calculations, timelines. This shall be basis for a project proposal to be developed by WWF.

3. Review existing technical drawings for picnic places, parking areas and dry/bio-toilets and adjust to the local conditions (the technical drawings were developed under another WWF project and will be made available to the consultant).
4. At the end of the assignment, the consultant shall make a presentation of the concept to interested stakeholders and potential donors.
5. Duration: 15 days in Armenia plus 10 days working from home for finalization of the concept. In the event that the proposal will be approved, a follow-up contract might be considered for supervision of works.

Figure 1. Map of the project area in the Vorotan River gorge.

