

Report on the State of Conservation

The Minaret and Archaeological remains of Jam (Afghanistan)

(May 2002, in Danger)

ID Number: Ref: (C 211 rev)

1. Response from Afghanistan to the World Heritage Committee's Decision 42 COM 7A.

a) Corrective measures taken by Afghanistan in reply to the World Heritage Committee's Decision(s):

Receiving the Emergency Fund, the Government of Afghanistan and UNESCO have collaborated to produce an overall conservation plan for the World Heritage Property of the Minaret and Archaeological Remains of Jam, Afghanistan.

The activities included in this Emergency Fund project are considered as a first response to the advocated necessity of a broad approach, which will contribute to create the basis for a comprehensive conservation program. The project comprises two main fields of actions: the first is to focus on the scientific study and evaluation of the hydrogeological risk and the establishment of clear steps to ensure the long-term protection of the rivers' banks; the second is to assess and evaluate all the other threats affecting the Minaret itself and the surrounding archaeological area through the required multi-disciplinary perspective.

- **Protection** – To ensure the OUV of the Jam Minaret, extension of gabion walls at the south bank of the Hari Rud and planting of trees upstream of the minaret was planned to tackle future possible flooding events. A system of recording the height and flow of both rivers at the upstream and downstream of the banks of Hari Rud and Jam Rud River shall be set by the Ministry of Water and Energy in 2018, in consultation with the Ministry of Information and Culture, in order to monitor future seasonal flooding.
- **Documentation** – A further detailed documentation of the environmental setting of the Minaret is needed for setting an action plan for future conservation and protection work. In this regard a mission to Jam was undertaken in September 2009 by a joint group of the Afghan officials, UNESCO experts, and international professionals (ICONEM), with the purpose of documentation of 3D model of the Minaret and its surrounding. Thanks to the Presidential office and UNESCO Kabul office for their support throughout the mission, 3D data was collected onsite. This data contributes to provide precise information on the

current conservation status of the outer and inner parts of the Minaret and surrounding area. This updated data will be critical to examine: 1) the possible evolution of structural damages and decay on the Minaret (through a comparison with previous documents); 2) the current status of protection walls built by the Afghan MoIC at the end of 2014; 3) the current state of conservation of internal structures and external surfaces of the Minaret; and 4) the presence of looting activities in the vicinity of the Jam Minaret.

- **Monitoring** – Monitoring instruments should be installed on the Minaret to measure the extent of incline in order to lay the groundwork for future conservation work. However, due to the lack of stable electricity in a remoted area of the Minaret and deteriorating security situation, it is extremely difficult for the Ministry staff to visit the site periodically.
- **Conservation** – After establishing an overall action plan and analysis of the 3D digitalized data on the conservation status of the Minaret, a pragmatic conservation work is required to protect and restore the delicate tile work and stucco design on the outside of the Minaret. While a stabilization plan for the Minaret structure is needed, a monitoring system *in-situ* to evaluate the movement of the structure is also required.
- **Capacity building:** A joint workshop with the purpose of preliminary hydrological and hydraulic design of river protection measures to safeguard the Minaret of Jam was conducted in Germany in April 2017 within the framework of Emergency fund and support of UNESCO. This was conducted by RWTH Aachen University (Institute of Hydraulic Engineering and water resources) for a group of Afghan professionals; one structural engineer from the Ministry of Information and Culture and two hydrologists from the Ministry of Water and Energy. The aim of the workshop was to provide a technical capacity building for the Afghan national officials to deal with river flood and protective walls at the Jam Minaret, in particular the enhancement of national and international understanding concerning the environs of the Minaret of Jam in terms of geology, hydrology, conservation, and engineering.

The workshop elaborated numerical modelling of the hydrodynamic processes of river Hari river and Jam river in the vicinity of the Minaret, by using the following modalities:

- a. set-up of a 1D or 2D numerical model on the basis of freely available software (e.g. HecRas);
- b. calibration of the model;
- c. simulation of the water levels and currents for 5 different hydrological scenarios;
- d. implementation of three different river training structures to reduce the impacts on the

gabion wall; and e. analysis of the water levels and currents as the basis for hydraulic design of the gabion wall.

No further work has been conducted at the Jam site in 2017 due to deteriorating of security situation.

Community development:

The Ministry of Information and Culture, Ministry of Rural Development, Ministry of Water and Energy, and other main line of ministries had periodical meetings in Kabul to construct a footbridge over the Hari Rud to enable year-round access for inhabitants of the nearby villages and access to the Jam World Heritage site for future conservation works. The construction of the bridge is planned in 2018, but this depends on the allocation of the national budget in 2018.

Site security:

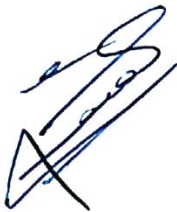
Regarding the security at the site, the MoIC and the Ministry of Interior Affairs have deployed a team of police officers to monitor and safeguard the World Heritage property. They are currently in place at the site to address the issue of illicit traffic of any movable cultural properties underground.

Project guest house:

During the past years heavy rains and snows caused a severe damage to the project guest house in Jam and the building needs to be substantially rehabilitated or reconstructed. In order to set a new guest house for a basic accommodation to experts during the mission seasons at Jam, a drawing and design of the new building was made by the Ministry of Information and Culture. And the Ministry is currently exploring its financial resource, hoping to start the construction of the guest house in the coming year.

Best Regards,

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