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ESTIMATION OF THE REASONS OF QANAT DEGREDATION AND ITS EFFECT ON VILLAGERS’ PARTICIPATION (CASE STUDY OF SIX REGIONS IN THE KHORASSAN PROVINCE)

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Abstract

Undoubtedly qanat could be one of the Iranian’s most creative designs for sustainable use of underground water resources. Controllable application of water by qanat systems guaranteed cultivation of crops in arid and semiarid regions of Iran for more than 2500 years.

Based on the important role of qanats in the ancient lives, establishment, utilization, maintenance and management of qanats were done by all villagers and water consumers.

In recent years development of wells, and oversupply usage of water and the lack of control and supervision by the governmental authorities caused destruction, drying of many qanats and great reduction in their discharge.

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Unfortunately, omission and neglecting the role of qanat in the villagers' lives also affected their social aspects and communication relationships.

In Khorassan province, one of the origins of qanats in Iran, six qanats are under case study. Survey on the subject was done through inquiry forms of specialist of water and soil research center of the area and the rapid rural appraisal (RRA) technique for local inhabitants.

In this study, common problems relevant to destruction of qanats and degradation factors are discussed and applicable solutions for rehabilitation of qanats and participation of locals due to improved management are addressed.

**Key words:** Qanat, degradation, participatory management.