

**United Nations Development Group Iraq Trust Fund**  
**Project #:A5-21**  
**Date and Quarter Updated: September 2010 (3rd Quarter)**

**Participating UN Organisation: UNESCO**      **Sector: AFSSOT**  
**Government of Iraq – Responsible Line Ministry: Ministry of Agriculture and Water Resources**

<b>Title</b>	Rehabilitation and conservation of Kahrez systems in the Northern Governorates				
<b>Geographic Location</b>	Northern governorates (Erbil, Dohuk, Sulaymaniyah)				
<b>Project Cost</b>	US \$ 1,600,628				
<b>Duration</b>	21 months (extended 17 months)				
<b>Approval Date</b>	10 Apr 2007	<b>Starting Date</b>	10 Apr 2007	<b>Completion Date</b>	10 July 2008 extended to 31.12.2010
<b>Project Description</b>	The project is aimed at increasing the water supply in rural areas through the rehabilitation and conservation of the traditional Kahrez water management system.				

**Development Goal and Immediate Objectives**

The overall goal is to improve supply of water for drinking and for irrigation in rural areas of the Northern Governorates through rehabilitation and conservation of the traditional Kahrez water management system. The immediate objectives are (1) to rehabilitate and conserve Kahrez water systems; (2) to build technical capacity in the long-term rehabilitation and maintenance of traditional Kahrez systems; and (3) networking with concerned institutions in the region to share the information and experience in the traditional water systems.

**Outputs, Key activities and Procurement**

<b>Outputs</b>	<ul style="list-style-type: none"> <li>1.1. Selected karez systems rehabilitated</li> <li>1.2. Rehabilitation and conservation plan developed for further rehabilitation and long-term conservation</li> <li>1.3. Short-term employment created</li> <li>2.1. Selected community members trained to operate and maintain the system</li> <li>2.2. Awareness raised on the proper use of the system</li> <li>2.3. Technical capacity of experts, technicians, enhanced</li> <li>2.4. Operating policies and procedures for managing the rehabilitated sections put in place</li> <li>3.1. A network with regional and international experts established in order to ensure continuous exchange of information and expertise on Kahrez systems for the long term conservation</li> </ul>
<b>Activities</b>	<ul style="list-style-type: none"> <li>1.1.1 Excavate and renovate up to ten karez systems in the Northern governorates</li> <li>1.1.2 Procure water surveying equipment necessary</li> <li>1.1.3 Undertake an impact assessment to determine the impact of the renovation on the lives of beneficiaries, including pre- and post-renovation water surveys</li> <li>1.2.1 Reviewing the existing regulations and customs of management of the karez systems to develop better conservation scheme</li> <li>1.2.2 Conducting a scientific survey of existing karez systems to develop further rehabilitation and protection plan</li> <li>1.3.1 Employing unskilled workers from the community for the short-term rehabilitation work and setting up the general regulation of local employment</li> <li>2.1.1 Train local beneficiaries of the renovated Kahrez on the use and maintenance</li> <li>2.2.1 Train MoAWR to transfer the state-of-art expertise and information to conserve the traditional water systems</li> <li>2.3.1 Organize training workshops for MoAWR staff on theoretical and practical techniques for Kahrez renovation and conservation</li> <li>2.3.2 Train MoAWR on the use of surveying equipment</li> <li>2.4.1. Developing standard operation procedures and disseminating them to stakeholders</li> <li>3.1.1 Participation in the international conferences and study visits on the traditional water</li> </ul>

	systems to obtain the new information and expertise, to present the situation and to call attentions and supports from the international communities
<b>Procurement (major items)</b>	<ul style="list-style-type: none"> <li>Water sampling and surveying equipments for the field survey</li> <li>IT equipments for the development of the inventory of karez</li> </ul>

<b>Funds Committed</b>	US\$ 1,486,448	<b>% of approved</b>	92.87%
<b>Funds Disbursed</b>	US\$ 1,168,135	<b>% of approved</b>	72.98%
<b>Forecast final date</b>	31 Dec 2010	<b>Delay (months)</b>	30 months

<b>Direct Beneficiaries</b>	<b>Number of Beneficiaries</b>	<b>% of planned (current status)</b>
Men	500 unskilled labour 15 skilled labour	40% 100%
Women		
Children		
IDPs	N/A	
Others	900-1000 farms 300,000 rural population	35% 35%
Indirect beneficiaries	1,000,000	40%
Employment generation (men/women)	50/10	40%

<b>Quantitative achievements against objectives and results</b>			
(1) to rehabilitate and conserve Kahrez water systems	<ul style="list-style-type: none"> <li>10 karez completed</li> <li>7 karez ongoing</li> <li>3 under preparation</li> <li>Restoration agreements signed with the Water User Committees of 4 karez</li> </ul>	<b>% of planned</b>	80
(2) to build technical capacity in the long-term rehabilitation and maintenance of traditional Kahrez systems	<ul style="list-style-type: none"> <li>4 Water User Committees that have started work have received training on Finance, Reporting, and Procurement.</li> <li>Manual for Sustainable Karez Restoration in Iraq has been completed</li> <li>Project liaised with NGO (Voice of Older People) to teach hygiene and safe water use in Garazel village. Filters were also distributed.</li> </ul>	<b>% of planned</b>	100
(3) Networking with concerned institutions in the region to share the information and experience in the traditional water systems.	<ul style="list-style-type: none"> <li>Iraqi MoAWR joined the membership of ICQHS for further cooperation along with Iran, Oman, Afghanistan and China.</li> <li>Survey and project steering committee for Phase 2 project (2010-2012) enabled exchange of international expertise</li> </ul>	<b>% of planned</b>	100

<b>Qualitative achievements against objectives and results</b>
<ol style="list-style-type: none"> <li>Request for extending end-date of karez project to 31 December 2010 approved on 20 September 2010.</li> <li>Contractors have continued to carry out karez restoration plans within the Erbil and Suleimanyah Governorates. <ul style="list-style-type: none"> <li>Restoration of ten (10) karez completed, 7 ongoing and 3 under preparation.</li> <li>Project will achieve restoration of 20 karez by the end of November 2010.</li> </ul> </li> </ol>

<b>Main implementation constraints &amp; challenges (2-3 sentences)</b>
Contaminated water prior to karez reconstruction was identified in Garazel Village however precautionary efforts by the project and a local NGO will mitigate any risk.