

United Nations Development Group Iraq Trust Fund
Project #:A5-21
Date and Quarter Updated: March 2010 (1st Quarter)

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

Title	Rehabilitation and conservation of Kahrez systems in the Northern Governorates				
Geographic Location	Northern governorates (Erbil, Dohuk, Sulaymaniyah)				
Project Cost	US \$ 1,600,628				
Duration	21 months (extended 17 months)				
Approval Date (SC)	February 2007	Starting Date	Apr 2008	Completion Date	Sept 2010
Project Description	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

Outputs	<ul style="list-style-type: none"> 1.1. Selected karez systems rehabilitated 1.2. Rehabilitation and conservation plan developed for further rehabilitation and long-term conservation 1.3. Short-term employment created 2.1. Selected community members trained to operate and maintain the system 2.2. Awareness raised on the proper use of the system 2.3. Technical capacity of experts, technicians, enhanced 2.4. Operating policies and procedures for managing the rehabilitated sections put in place 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
Activities	<ul style="list-style-type: none"> 1.1.1 Excavate and renovate up to ten kahrez systems in the Northern governorates 1.1.2 Procure water surveying equipment necessary 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 1.2.1 Reviewing the existing regulations and customs of management of the karez systems to develop better conservation scheme 1.2.2 Conducting a scientific survey of existing karez systems to develop further rehabilitation and protection plan 1.3.1 Employing unskilled workers from the community for the short-term rehabilitation work and setting up the general regulation of local employment 2.1.1 Train local beneficiaries of the renovated Kahrez on the use and maintenance 2.2.1 Train MoAWR to transfer the state-of-art expertise and information to conserve the traditional water systems 2.3.1 Organize training workshops for MoAWR staff on theoretical and practical techniques for Kahrez renovation and conservation

	<p>2.3.2 Train MoAWR on the use of surveying equipment</p> <p>2.4.1. Developing standard operation procedures and disseminating them to stakeholders</p> <p>3.1.1 Participation in the international conferences and study visits on the traditional water systems to obtain the new information and expertise, to present the situation and to call attentions and supports from the international communities</p>
Procurement (major items)	<ul style="list-style-type: none"> Water sampling and surveying equipments for the field survey IT equipments for the development of the inventory of kahrez

Funds Committed	US\$ 1,354,602	% of approved	84.63%
Funds Disbursed	US\$ 1,038,618	% of approved	64.89%
Forecast final date	30 Sept 2010	Delay (months)	9 months

Direct Beneficiaries	Number of Beneficiaries	% of planned (current status)	
Men	500 unskilled labour 15 skilled labour	20%	100%
Women			
Children			
IDPs	N/A		
Others	900-1000 farms 300,000 rural population	25%	20%
Indirect beneficiaries	1,000,000	15%	
Employment generation (men/women)	50/10	20%	

Quantitative achievements against objectives and results			
(1) to rehabilitate and conserve Kahrez water systems	<ul style="list-style-type: none"> All procurements were completed by September 2008 and equipment was delivered to the KRG MOWR Restoration of model karez completed 7 January 2010. Restoration of karez at Kuna Flusa complete Survey of karez systems in northern governorates completed Restoration plan completed, new karez targeted (19). 	% of planned	70
(2) to build technical capacity in the long-term rehabilitation and maintenance of traditional Kahrez systems	<ul style="list-style-type: none"> 17 technical experts participated in the 2-week training on Advanced Techniques in Planning, Methodology and Applications in Yazd, Iran (December 2009) 	% of planned	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"> Iraqi MoAWR joined the membership of ICQHS for further cooperation along with Iran, Oman, Afghanistan and China. Survey and project steering committee for Phase 2 project (2010-2012) enabled exchange of international expertise 	% of planned	100

Qualitative achievements against objectives and results
<ol style="list-style-type: none"> Restoration of the model kahrez in Shekh Mamudian village, near Shaqlawa, concluded on 7 January 2010. Water discharge (fluctuating from 1-5L/second between January to March) has returned to the village following the completion of the work. The restoration of a second karez, in the village of Kuna Flusa, was successfully undertaken from 10 to 30 March 2010. The water discharge has increased from 0.8L to over 1.0L immediately following the

restoration. UNESCO will continue to monitor the rate of discharge.

Main implementation constraints & challenges (2-3 sentences)

Rain and inclimate weather slowed restoration work at Shekh Mamudian karez, though not to the extent expected.