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# CONSULTANCY REPORT: IRRIGATION WATER POLICIES

December 2005

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# CONSULTANCY REPORT: IRRIGATION WATER POLICIES

## **DISCLAIMER**

The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

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# Memo

To: Robert Hudgens, COP, KAFA'A  
From: Mark Svendsen, Water policy specialist  
CC: Del McCluskey, DAI; German Sabillon, DAI/KAFA'A  
Date: 23 November 2005  
Re: Jordan Trip Report

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## Objectives of Consultancy

The principal objectives for the mission were to:

1. *To assist KAFA'A, USAID and the Ministries of Water and Irrigation and Agriculture in promoting reform on policy and regulatory environment for water management and agricultural production in Jordan*
2. *To revise one existing policy in water management that discourages water conservation and to formulate one new policy.*

## Scope of Work

Activities carried out are detailed in the appended schedule. Principle information gathering activities included visits to the Jordan Valley; an extensive set of meetings with more than 30 persons from JVA, universities, MWI, USAID, GTZ, and other organizations; and document reviews. A list of persons met is attached. Midway through the assignment, a pair of draft annotated outlines for the two policy papers were circulated for comment. After receiving comments, the two papers were drafted and circulated. A briefing for the USAID CTO and the irrigation policy advisory committee was held the day before departure.

In addition to the preparation of the two policies, consultant participated in an informal discussion of water-related issues in Jordan with the USAID Mission Director, Deputy Director, and several staff members.

## Expected Outputs

1. Power Point presentation on findings and recommendations of the consultancy
2. Two draft policy papers before leaving Jordan
3. Final versions of the two policy papers within one week of receiving comments from USAID

## Activity Schedule

4 – 5 November	Friday – Saturday	Travel to Amman.
6 November	Sunday	Meet with COP. Field trip to Jordan Valley with Nabeel Maroon, Kafa'a.
7 November	Monday	Field trip to Jordan Valley with German Sabillon, Kafa'a. Meet with NCARTT researchers. Meet with USAID CTO.
8 November	Tuesday	Meet MWI Policy Advisory Committee. Meet with researchers at U of Jordan.
9 November	Wednesday	Visit National Drip Irrigation Company. Meet with Jordan Institute of Standards and Metrology.
10 November	Thursday	Work in office.
11 November	Friday	Off day.
12 November	Saturday	Work in office.
13 November	Sunday	Work in office.
14 November	Monday	Meet with JUST. Meet with GTZ.
15 November	Tuesday	Circulate draft policy outlines. Meet with MWI.
16 November	Wednesday	Meet with Deputy Secretary General, JVA. Meet with JVA on water allocation process.
17 November	Thursday	Meet with MWI on expected Amman wastewater effluent quality
18 November	Friday	Off day.
19 November	Saturday	Prepare Powerpoint presentation
20 November	Sunday	Presentation on Egypt M&E. Write
21 November	Monday	Discussion with USAID. Write.
22 November	Tuesday	Presentation to Policy Advisory Committee. Write.
23 November	Wednesday	Return to Oregon

## Persons Interviewed

Sunday 6 November

Dr Robert Hudgens

COP

Kafa'a

Mr Nabeel Maroon

Policy Support Specialist

Kafa'a

Eng Shafiq Al-Habash

Head, Control Systems and WM Division

JVA

Monday 7 November

Dr German Sabillon

Kafa'a

Eng Tayseer Ghezawi

Asst. Sec. General

JVA

Eng Khaled Qsos

Asst. Sec. General

JVA

Ms Najah Masalha

Director of Agriculture, JV

Dr Abdel Nabi Fardous

DG, Soil and Irrigation

NCARTT

Dr Majid Fandi

Director, Technical Assistance

NCARTT

Dr Mohammed Jitan

NCARTT

Dr Naim Mazahra

NCARTT

Dr Nihad Smerat

Team Leader

Horticulture Export Promotion and TT Project

NCARTT

Ms Setta Tutundjian

Project Mgt Specialist

Water Resources and Environment

USAID, Amman

Tuesday 8 November  
MWI Policy Advisory Committee

Dr German Sabillon  
Kafa'a

Eng Nabil Maroon  
Kafa'a

Ms Ruby Asad  
Kafa'a

Eng Farouk Kana'an  
MWI

Eng Nayef Seder  
Director of WR Directorate  
JVA

Eng Qais Owais  
Director North and Middle Ghors  
JVA

Eng Husam Elaidi  
IAS Section Head  
JVA

Eng Yusof Hasan  
Asst. Sec. Gen. for Planning and Information  
MWI

Ms Rasha Sharkawi  
MWI

Dr Manar Fayyad  
Director, Water & Environment Research & Study Center  
University of Jordan

Wednesday 9 November  
Eng Ayman Al-Idreesi  
Factory Manager  
National Drip Irrigation Company

Eng Hasan Lafi  
Sales Manager  
National Drip Irrigation Company

Eng Salem Quheiw  
Director General Assistant  
Jordan Institution for Standards and Metrology

Ms Rana H. Kilani  
Standardization Department  
Jordan Institution for Standards and Metrology

Monday 14 November  
Dr Munir J. M Rusan  
Dean, Faculty of Agriculture  
JUST

Dr Laith M. Rousan  
Director, Technology Transfer Department  
Faculty of Agriculture  
JUST

Dr Jumah A Amayreh  
Acting Dept Head, Dept of Agric Eng & Technology  
Faculty of Agriculture  
JUST

H. Jochen Regner  
Project Advisor, GTZ  
WR Management in Irrigated Agriculture

Tuesday 15 November  
Eng Suzan Taha  
Director, National Water Plan  
MWI

Wednesday 16 November  
Eng Mousa Jama'ani  
Deputy Secretary General  
JVA

Eng Nayef Seder  
Director of WR Directorate  
JVA

Eng Tayseer Ghezawi  
Asst. Sec. General  
JVA

Eng Qais Owais  
Director North and Middle Ghors  
JVA

Thursday 17 November  
Eng Saleh Malkawi  
Director, Water Reuse and Environment Unit  
MWI

Sunday 20 November  
Mr Artur Vallentin  
JVA Reclaimed Water Project  
GTZ

Monday 21 November  
Ms Anne Arnes  
Director  
USAID/Jordan



Mr Michael Harvey  
Deputy Director  
USAID/Jordan

Mr Eric Johnson  
Senior Private Sector Advisor  
USAID/Jordan

Ms Setta Tutundjian  
Project Mgt Specialist  
Water Resources and Environment  
USAID, Amman

Ms Tracy Thoman  
Program Development Officer  
USAID/Jordan

Tuesday 22 November  
Seminar presentation of results with approximately 20 people

## **Terms of Reference**

### **Water Resource Planning and Management, Policy Specialist Under Contract USAID Contract No. 273-C00-03-00222-00 KAFA'A, Knowledge and Action Fostering Advances in Agriculture<sup>1</sup>**

#### **Background**

The KAFA'A project recently conducted an assessment of existing policies related to irrigated agriculture in Jordan, which provided an overview of existing policies enacted by the two most important institutions dealing with water management and agricultural production: the Ministry of Water and Irrigation (MWI) and the Ministry of Agriculture (MoA). The assessment also identified the challenges that the policy environment presents in terms of water management, socioeconomic considerations, and general public awareness of the water scarcity problem.

The KAFA'A Plan of Work (Jun '05 – Dec '06) includes the revision of two existing policies and the development of two new policies (i.e. and existing and new policy from each of the ministries). Advisory Committees from the MWI and MoA have reviewed the KAFA'A policy assessment and identified policies they believe should be addressed by the project.

#### **Objectives**

- To assist KAFA'A/USAID and the aforementioned ministries in promoting reform on policy and regulatory environment for water management and agricultural production in Jordan.
- To revise one existing policy in water management that discourages water conservation and to formulate one new policy.

#### **Scope of Work**

The specialist will provide his/her expertise in the water resources planning and managing to prepare:

##### **A. Revised Policy Paper on “Irrigation Water Efficiency / Crop Water Requirements”**

1. Review the background of the revised policy problem, including the:
  - a. Lack of estimates of crop water requirements to be used for water management at all levels
  - b. Need for institutional collaboration on an integral solution: research (National Center for Agricultural Research and Technology Transfer – NCARTT and Universities), water delivery to farms (Ministry of Water and Irrigation / Jordan Valley Authority), and technical assistance to farmers (Ministry of Agriculture-extension and NCARTT-technology transfer agents)
  - c. Lack of institutionalized process of technical knowledge dissemination

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<sup>1</sup> Official name: “Education and Information Program to Improve Irrigation Water Use Efficiency” (Project #273-C-00-03-00022)

2. Review and validate or recommend alternatives to the following proposed MWI Policy Advisory Committee's solution process:
  - a. Review existing local and international literature
  - b. Recommend a set of provisional values for crop water requirement; and
  - c. Recommend a process of validation of existing values or for establishing new values adapted to local conditions
3. Prepare a policy statement and a policy implementation plan taking into account:
  - a. The formation of a Water Efficiency Technical Coordination Committee including representatives of NCARTT, MWI, MoA, and Jordan Valley Farmers Association to consider factors such as water availability, cropping patterns, water pricing, and water quality.
  - b. Institutional responsibilities for legislation and implementation of proper on-farm water management
  - c. Institutional strengthening

**B. New Policy Paper on “Irrigation Water Efficiency / Irrigation Equipment Standards and System Design Code”**

1. Review the background of the new policy problem, including the:
  - a. Lack of standards for equipment and materials, which leads to short lived systems or costly and frequent renovations
  - b. Need for an integrated solution involving the Ministry of Industry and Trade (MoI), MWI, MoA, NCARTT, Agricultural Engineers Association (AEA), private sector, and Jordanian Institute for Standards and Metrology (JISM)
  - c. Lack of certified professionals and ethics in irrigation system designs (i.e. the need for a Systems Design Code)
2. Validate or recommend alternatives to the MWI Policy Advisory Committee's suggested solution process with the integration of an Irrigation Equipment & Materials Standards Advisory Committee to:
  - a. Review all existing standards and restrictions for equipment importation and local production
  - b. Recommend a set of standards and a standards updating process
3. Prepare a policy statement and implementation plan taking into account the:
  - a. Legal framework for establishing and applying standards
  - b. Need for an equipment and materials certification body
  - c. Institutional responsibility for certification
  - d. Institutional mechanism for certification of Agricultural Irrigation Specialists

The consultant will also make a technical presentation of the recommendations to USAID, MWI, MoA and KAFA'A prior to submitting the report to USAID for final approval. The following is a suggested reporting format: brief statement of the issue (policy statement), background discussion of the issue and why it is important (objectives), stakeholders/target group, analysis of option (s) that discuss the actions to be taken, challenges/benefits posed by each option, and recommended actions.

**Level of effort**

The duration of this assignment will be 25 working days, and the assignment will start on or around November 1<sup>st</sup>, 2005.

**Deliverables**

1. MS Power Point presentation of the findings, proposals, and recommendations
2. Two draft papers, one for each of the aforementioned policies, before leaving Jordan
3. Final versions within one week after receiving comments from USAID.

DELIVERABLE 1:

POWERPOINT PRESENTATION  
ON FINDINGS AND RECOMMENDATIONS

## DELIVERABLE 2:

### REVISED POLICY ON IRRIGATION WATER ALLOCATION AND USE

## DELIVERABLE 3:

### NEW POLICY ON IRRIGATION EQUIPMENT AND SYSTEM DESIGN

**U.S. Agency for International Development**  
Office of Water Resources and Environment  
American Embassy, Abdoun  
Amman 11118, Jordan  
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Fax: (962) 6-592-0143  
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