



U.S. TRADE & DEVELOPMENT AGENCY

Ministry of Agriculture and Land Reclamation- Egypt

Dr. Abdel-Ghany .M. El-Gindy

Prof. of Agricultural Engineering and Ex. Dean

Faculty of Agriculture -Ain - Shams Univ.

**On-Farm Irrigation Advisor & Chairman of the higher
board of OFIDO**

Ministry of Agriculture and Land Reclamation - Egypt

USA - June 2011

Sustainable Use Of Agricultural Resources Program



This program includes five national projects:

1. National project for On-farm irrigation development.

2. National project for improving the efficiency of agricultural land resources.

3. National Project for Agricultural Weather Network and address the adverse effects of climate change.

4. National project for Land Reclamation and Increasing Cultivated Area.

5. National project for integrated development of rain-fed areas



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Current projects



Sustainable Use of Agricultural Resources Program

National Project

On-farm Irrigation Development in Egypt (OFIDO)

Sub-Projects



1-On-farm Irrigation Development in Old Land (OFIDO)



**2- Rehabilitating and improving the management of on-farm
irrigation in the newly reclaimed land**



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Some indicators of the current status of Egypt's agricultural sector*

Indicators	Estimated average (2010)
Agricultural water (BCM)	58
Percentage of small holdings (less than 5 fed.-2 ha.)	42
Per capita share of cultivated land (fed)	0.12
Per capita share of water (CM)	705/1000
Irrigation water application efficiency .	50%

Prof. A. M. El-Gindy



Cultivated & reclaimed agricultural lands (m.fed.)

Total cultivated area **8.6**

**Area of the Nile Valley & Delta
(surface irrigated lands)** **6.5**

**Area of the new reclaimed land
(pressurized irrigated lands –(sprinkler & localized Sys.)** **2.1**

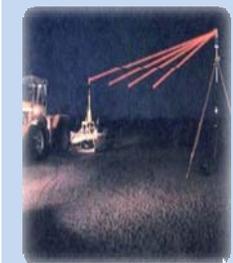
Cropping acreage **15.2**

Expected area of reclaimed land until 2017 **1.5**

Expected area of reclaimed land until 2030 **3.0**



Main Objectives Of National Program Of On-farm Development in Old Land(OFIDO)



The main goal of this program is to improve on-farm irrigation systems in old land in order to save significant amounts of water to be used in reclaiming the targeted areas in 2030 strategic plan.

While

The overall goal of the project is to improve the agricultural productivity and increasing the value of crop production per land and water units, and to improve the livelihoods of the rural society



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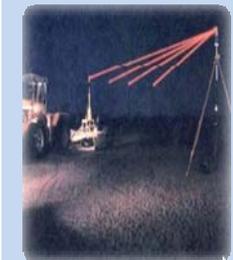


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Lateral Objectives and Expected outputs Of National Project Of On-farm Development in Old Land(OFIDO)



1. **Increasing** agricultural production and improving quality of products.
2. **Expanding** the use of agricultural mechanization and increased **investment in this area.**
3. **Increasing** the **investment opportunities**, for the manufacturing and imported of equipment and raw materials for field irrigation systems and increase **the income of farmers and create new jobs.**
4. **Encouraging** farmers organization establishment within the agricultural cooperation to participating in the development, management, operation and maintenance of improved irrigation systems.
5. **Improving** the Public health of the farmers.



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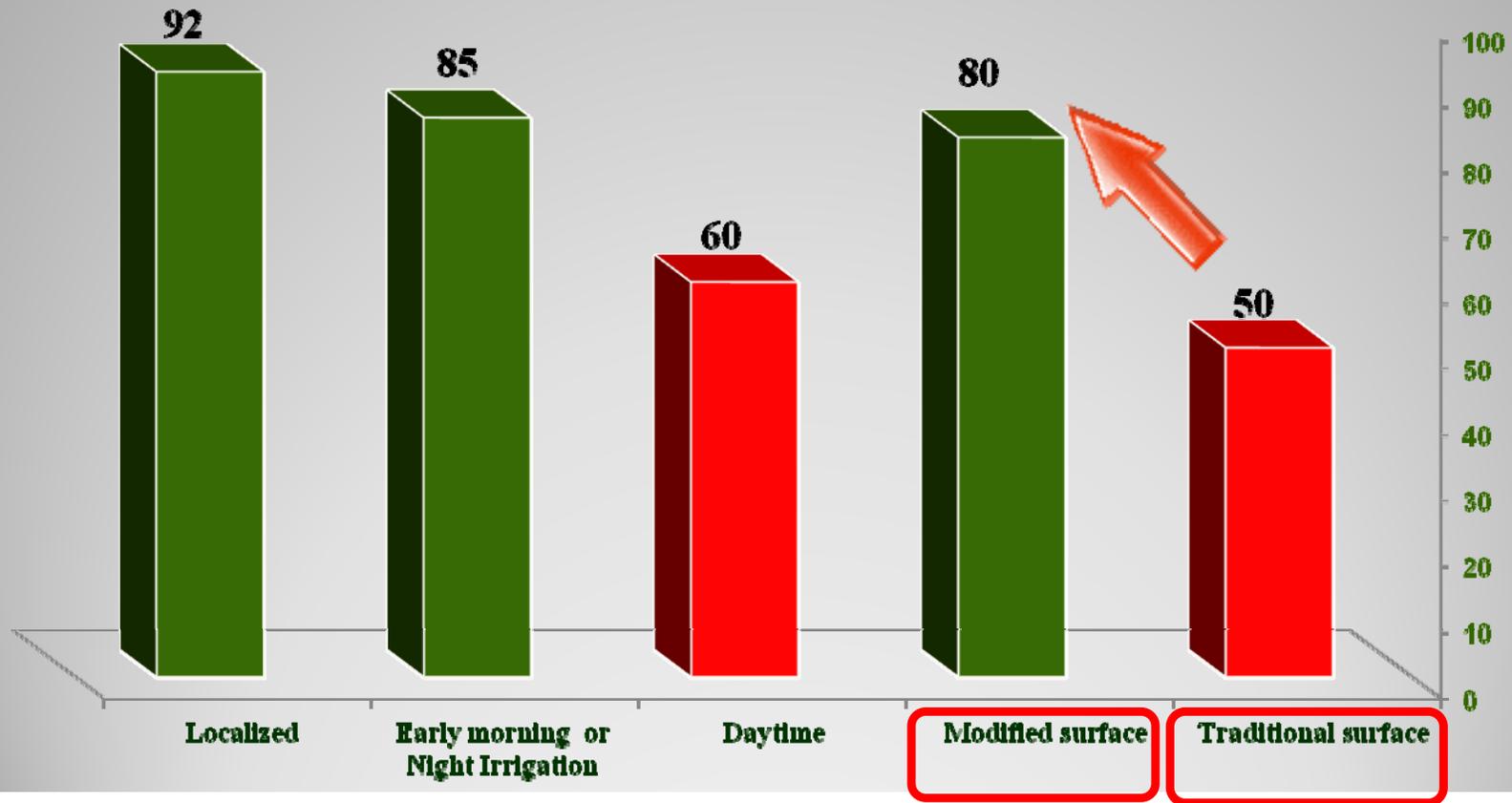


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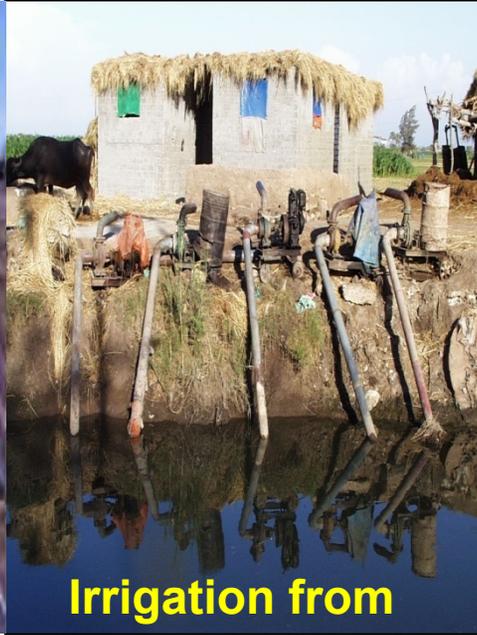
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Field water application efficiency for different irrigation methods

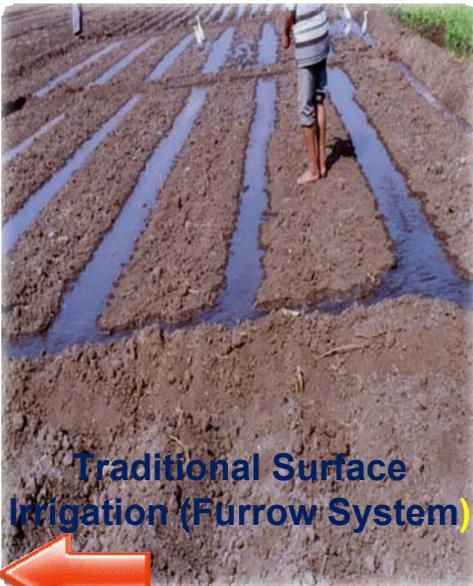


Sprinkler Irrigation

Some Irrigation Problems



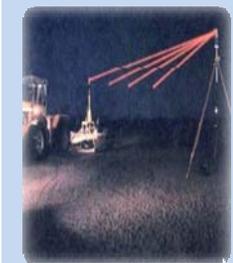
Irrigation from
Drainage Canal



Traditional Surface
Irrigation (Furrow System)



Primary Proposed Techniques Of Improvement



1. **Renovation** of mesqas and marwas, by converting to **PVC pipes**
2. **Improve water entrances** in the fields, by using controlling valves, this procedure make the farmer able to control irrigation water amounts according to the irrigation scheduling recommendation.
3. **Using** improved on-farm irrigation systems (**laser leveling & gated pipes**) and modified practice for better surface irrigation.
4. **Applying** localized irrigation in fruits and vegetables fields.
5. **Applying crop water requirements** based on **climate conditions**.
6. **Improving** irrigation management and scheduling on farm level (
7. **Preparation** of agro-ecological zoning map based on GIS to identify best land use pattern.



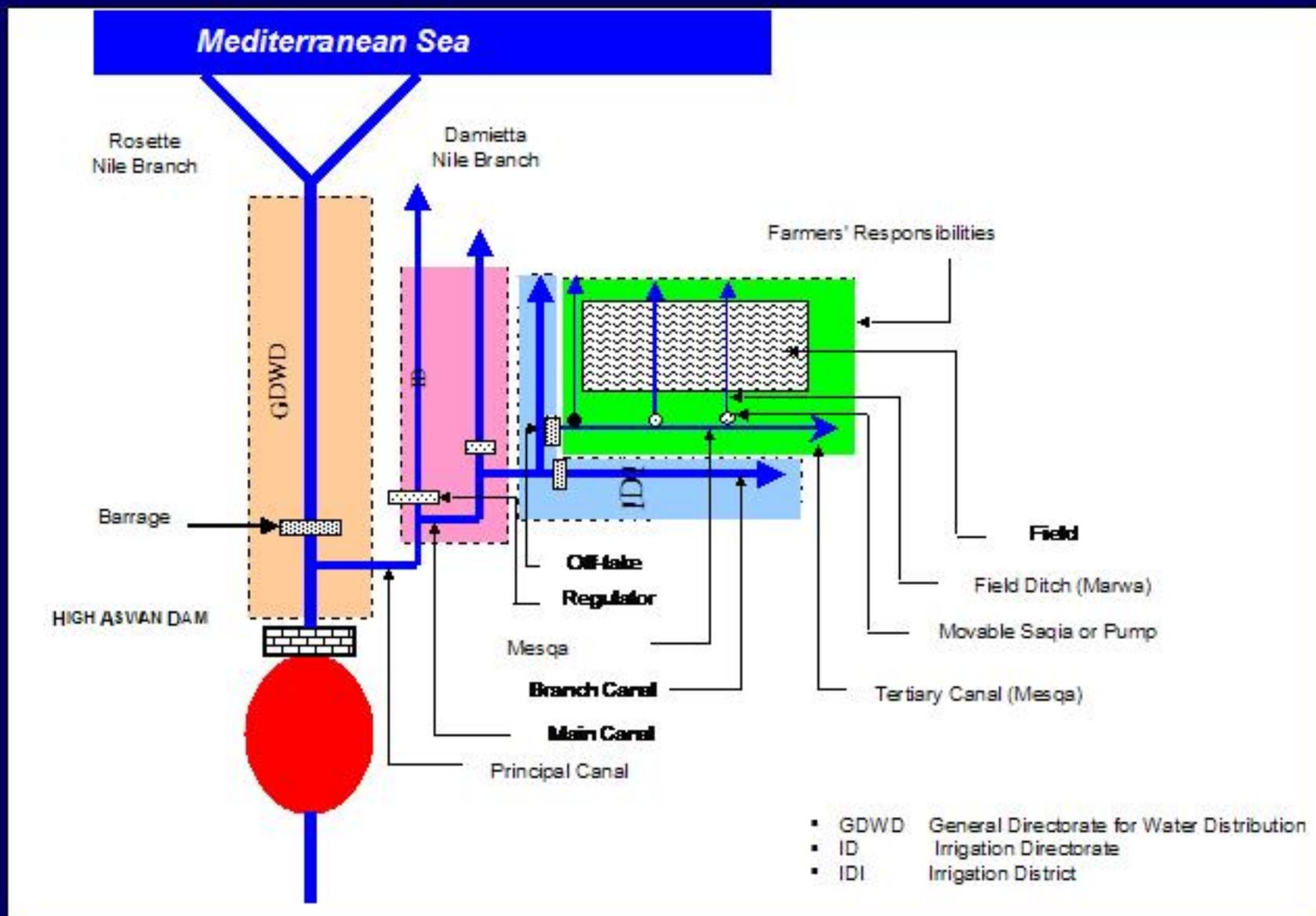
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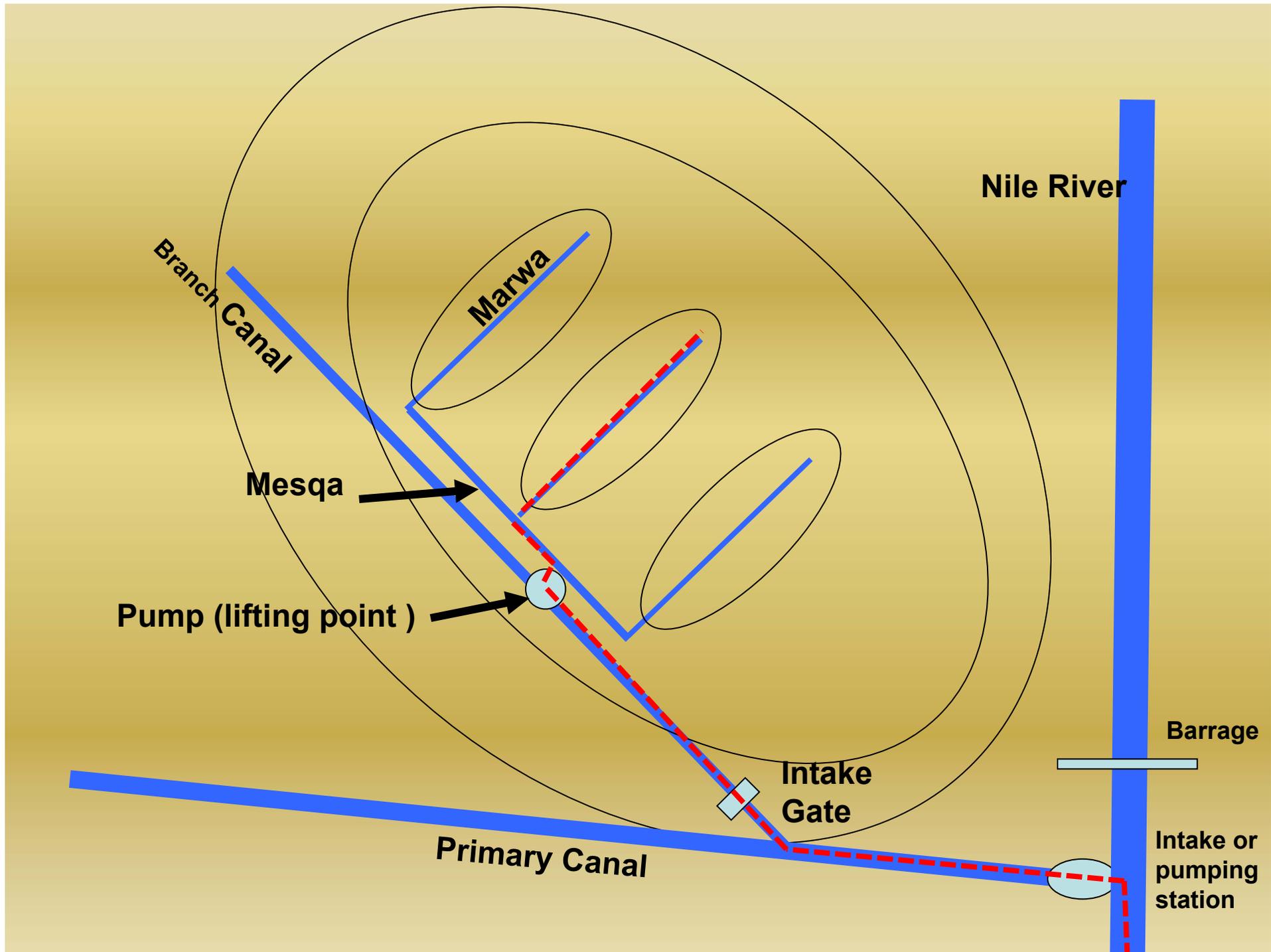
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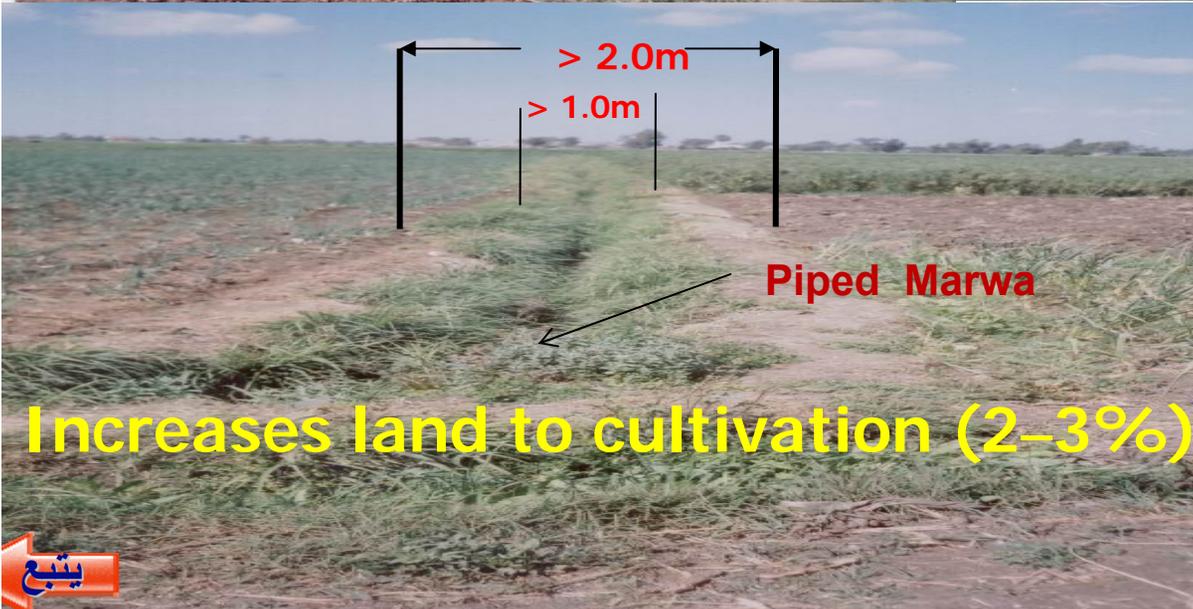
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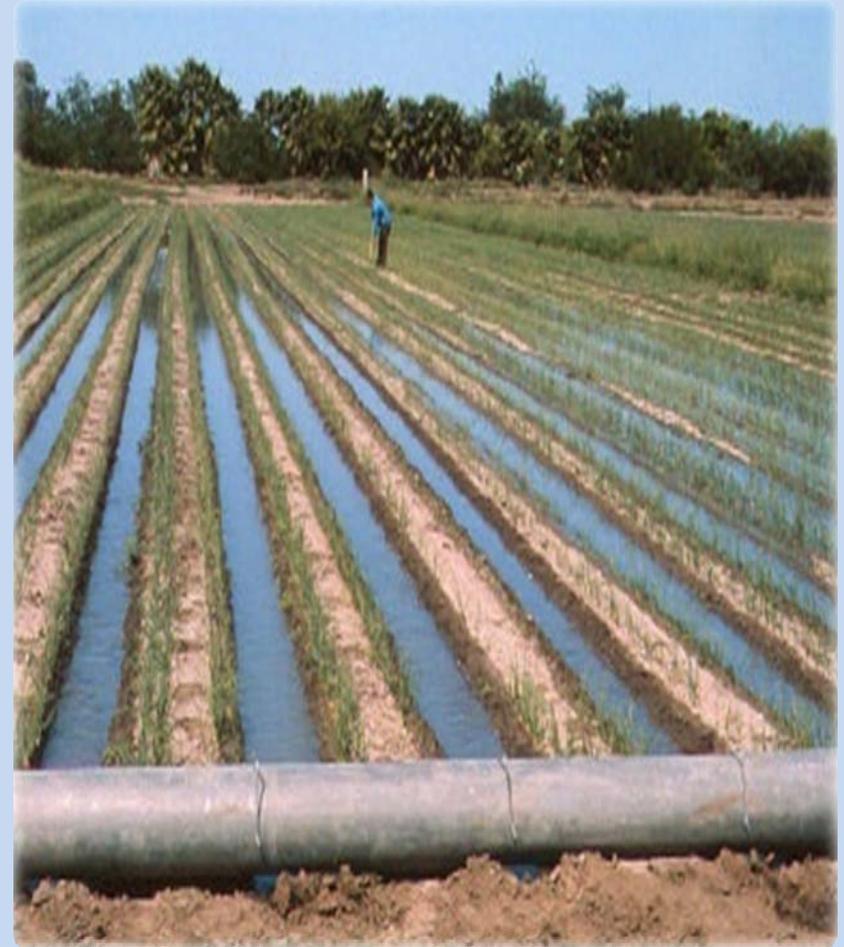
Schematic of Irrigation System in Egypt



Advantages of piping Marwa & Mesqa



Primary Proposed Techniques Of Improvement



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The Responsible Entity For implementing the project and the Participants

Ministry of Agriculture and Land Reclamation

Ministry of Water Resources and Irrigation

Other institutions

Egyptian Universities in different regions.--Public Authority for Geological Survey. -Advisory and Consultancy entities.- **Private sector** -National Investment Bank, **National local banks and other foreign Banks.**



Projects Area, Implementation , Timeline , Costs and Financing



1. Improving irrigation of **5 million fed.(acres)** in Nile Delta and Valley during the action plan (2011-2021 -**10 years**- 0.5 M. acres per year.
2. Rehabilitating and improving the management of on-farm irrigation in **2.1 million fed.(acres)** in the newly reclaimed land, during the first action plan (2010-2017)- 7 years



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Projects Area, Implementation , Timeline , Costs and Financing



Cost

10 Billion \$.

Financing

1. Governmental ,
2. Private Sectors,
3. Community ,and
4. National and international Donors
(Loans.etc.)



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Implementation phases of the National Program of (OFIDO) phase 1



1. Establishment of pilot farms (Completed And Funded By (ICARDA)

Establishment of pilot farms (Completed and Funded by (ICARDA) for establishing an applicable information and technology package of improving on-farm irrigation systems in old lands through establishing two pilot locations **Sakha- Kafr El-Shakh Gov**



2. Establishment On-farm irrigation Extension Center to strengthening agricultural extension sector in the field of on-Farm Irrigation. ,UC Davis is providing short-term training course for Egyptian extension workers on-field irrigation .



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Implementation phases of the National Program of (OFIDO) phase 2



The objective of this phase is evaluating the established information and technology package from phase I at the farm level.

1- IFAD project

location Five pilot locations are proposed to be established in five governorates, (Middle Delta), Kfer Elshakh, Beheara governorate 30000 fed (Upper Egypt) Assuit, Sohage, and Qena governorate 15000 fed.

Budget IFAD covered the cost of implementing the project by a loan of up to

47 US\$ million equivalent, in about 45 thousand fed

Started February 2011



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Implementation phases of the National Program of (OFIDO) phase 2



2- World Bank project

FARM-LEVEL IRRIGATION MODERNIZATION PROJECT (FIMP)

The proposed project will be financed in part by a loan of up to **US\$ 100 million equivalent**, which will be disbursed **over five years to cover 200 thousand fed .**

The project will have two components:

1. **Marwa and farm-level irrigation improvements and,**
2. **Farm-level technology development and dissemination.**

Start time September 2011



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Implementation phases of the National Program of (OFIDO) phase 2



3- African Development Bank project

The proposed project will be financed in part by a loan of up to **US\$ 250 million equivalent**, which will be disbursed over five years. **to cover 250 thousand fed ..**

(**Under Discussion**) **Start time 2012**



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Current market position



The local market cover only locally or imported irrigation and mechanization equipment and materials to cover the projects requirement as following :

A-Irrigation

1.50% PVC pipe and PE tube .

2.15 % PVC and PE fittings.

3.15-25 % filtration and chemigation systems.

4.20% sprinkler heads, drippers, bubblers , mini-sprinklers, and aluminum and PVC gated pipes

5.30% Valves.pr. Regulators, flow Regulators, air vent, pressure relief valves , water and flow meters

6. **40%** centrifugal, turbine ,and submersible pumps.

7. **20%** weather stations.

8. **25-35%** center pivot systems.



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Current market position



B-Farm machineries

- 1.50%** Land preparation equipment.
- 2.50%** Sprayers, harrows etc....
- 3.15%** post harvesting equipment .
- 4.20%** Deferent sizes tractors.
- 5.30%** Laser equipment .



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Relationship Interest with U.S. Firms

Opportunities for U.S. Companies

1. Design
2. Construction
3. Equipment
4. Material and equipment manufacturing



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Envisioned direction



- 1. New irrigation product lines** (PVC pipe and PE tube, filtration and chemigation systems, sprinkler heads, drippers, bubblers and mini-sprinklers, valves, pr. Regulators, flow regulators, air vent, pressure relief valves, water and flow meters, centrifugal, turbine, and submersible pumps, center pivot systems, and al. and PVC gated pipes.



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Relationship Interest with U.S. Firms



1. Buy US irrigation products and services.



2. Manufacturing US products.

3. Supporting by US financing,



4. Enter venture partnership on irrigation and mechanization projects.



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Relationship Interest with U.S. Firms



Training and Human Resource Development Programs(HRD) Of Water Resources and On-Farm Irrigation Management



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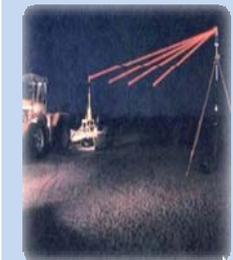


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Relationship Interest with U.S. Firms



Selected Projects For Collaboration)

1.Updating the data of the natural resources (land, water and climate), using GIS and Satellite images data.

2. Studies on integrated agro-climate systems and developing the existing agricultural systems (irrigated agriculture, rain-fed agriculture, range lands) .

3.Integrated Maize Management

4.Integrated Olive Management

5.Integrated Grape Management



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Thank you

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