

Tatwer

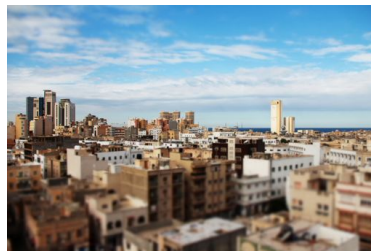
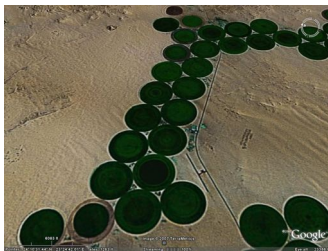
Libya

Development program

Industry

Agriculture

Private investors



Mediterraneo NCM Ltd

March 2013

Tatwer

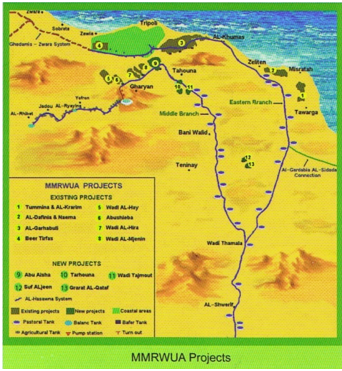

Settori di sviluppo in Libia attraverso holding di investimento
Relazione a cura della Mediterraneo NCM Ltd (21 Marzo 2012)

www.mediterraneanoncm.it

Settori di sviluppo e affari in Libia:

- INDUSTRIA** _riqualificazione di quella esistente
AGRICOLTURA _sviluppo da rurale a industriale
ALTRI SETTORI _investitori privati libici in attività di joint-venture

Settore Agricolo	Settore industriale
Nell'ambito di un programma di reale modernizzazione del sistema agricolo libico, la Banca Centrale Libica, attraverso propri Enti di sviluppo, finanzia progetti concreti che hanno come scopo lo sviluppo dell'agricoltura libica, ponendola a livello di impresa produttiva. L'Ente di sviluppo (Tatwer) è già dotato dei fondi economici.	Nell'ambito di un importante progetto per la riqualificazione di quattro grandi aree industriali, che di fatto rappresentano insieme tra le più importanti aree industriali del Nord Africa, il Governo libico mette a disposizione infrastrutture attrezzate per la produzione.
Cosa cerca l'Ente di sviluppo.	Cosa cerca l'Ente di sviluppo.
<ol style="list-style-type: none"> 1. Vogliono realizzare cicli produttivi chiusi e aperti (es.: dalla coltivazione del pomodoro alla produzione di concentrato, all'inscatolamento). 2. Know-how. 	Aziende qualificate, ovvero con elevato know-how che siano disposte, in cambio di infrastrutture e impianti, a fare joint-venture produttive per la realizzazione di beni che possano essere destinati all'esportazione, oltre al mercato locale.
A chi si rivolge l'Ente Libico.	A chi si rivolge l'Ente Libico.
Ad imprese agricole che abbiano una consolidata e provata esperienza nel settore della coltivazione, alle quali viene richiesto: <ol style="list-style-type: none"> 1. Caratteristiche produttive 2. I canali di distribuzione 3. Volumi di produzione e storico 4. Know how 5. Destinazione dei loro prodotti (es.: tavola o trasformazione) 6. Piattaforma della catena produttiva/distributiva 	Ad imprese solide e con uno storico produttivo e commerciale significativi, oltre che dimostrabili. In altre parole, mentre prima si potevano proporre progetti faraonici, che non avevano quasi nessuna visione futura ed aderenza con la realtà locale, oggi i progetti devono essere misurati alla realtà del Paese e delle sue semplici capacità di indotto produttivo.
Imprese privilegiate nella scelta dell'Ente di sviluppo.	Imprese privilegiate nella scelta dell'Ente di sviluppo.
<ol style="list-style-type: none"> 1. Imprese agricole che hanno una reale competenza nell'uso economico delle acque nelle coltivazioni. 2. Imprese che hanno capacità di riesportazione dei prodotti. 3. Imprese che usano protocolli di tracciabilità. 4. Imprese che hanno competenza nella coltivazione di ortaggi. 5. Imprese che coltivano piante per la produzione di olio di semi. 	<ol style="list-style-type: none"> 1. Lavorazioni meccaniche (leggere e pesanti) quali, a mero titolo esemplificativo, rubinetteria, maniglie, ingranaggi, coppie coniche, etc. 2. Carpenterie in acciaio. 3. Produzione di tubi. 4. Laminazione a freddo. 5. Casseforme da costruzione. 6. Ponteggi e puntelli da costruzione. 7. Produzione da laminazione a caldo (tondino da costruzione, travi IPE HEA, etc.). 8. Fusioni in ghisa e/o alluminio. 9. Produzione di pannelli sandwich.

Settore Agricolo	Settore industriale
A cosa possono accedere queste imprese.	A cosa possono accedere queste imprese.
<p>Queste imprese, investendo, quasi esclusivamente, il proprio know-how possono ottenere:</p> <ol style="list-style-type: none"> 1. Uso di importanti estensioni agricole (si veda l'allegato del "Grande Fiume"). 2. Acqua. 3. Risorse economiche per condurre a regime le attività produttive. 	<ol style="list-style-type: none"> 1. Ad impianti produttivi di fatto pronti all'uso, salvo doverli adattare alle specifiche produzioni. Dalla fonderia ai sistemi di lavorazione meccanica e saldatura. 2. Manodopera internazionali. 3. Basso costo dell' energia (c.a. 1/10 di quella italiana). 4. Basso costo dell'acciaio prodotto in Libia (il Paese è fuori dal WTO, quindi di fatto non rientra nelle logiche di "cartello" dei colossi dell'acciaio e, dalle precedenti indagini di mercato, ci risulta che l'acciaio libico, nel mercato interno su prodotti finiti può costare anche meno del 40% rispetto all'Italia). 5. Basso rischio d'impresa, in quanto si interviene da impianti esistenti. 6. Capacità di contenimento commerciale per prodotti provenienti dall'Asia. 7. Possibilità di produrre beni di qualità e cultura italiana e a prezzi competitivi. 8. Prossimità produttiva all'interno di mercati in forte sviluppo.
Aree produttive	Aree produttive
Tripolitania	Garian – Esbea – Qasr Ben Ghashir – Tjura.
	
Altri settori	
<p>Nell'ambito delle costruzioni edili si possono valutare progetti di joint-venture con investitori privati libici, con particolare focus nei seguenti settori:</p> <ol style="list-style-type: none"> 1. Produzione di mattoni e suoi derivati. 2. Produzione di pavimenti. 3. Produzione di calci. 4. Sistemi di depurazione e trattamento delle acque (mercato interno ed esportazione). 5. Produzione di serramenti. 6. Produzione di vernici. 7. Produzione di rubinetterie (mercato interno ed esportazione). 8. Produzione di maniglie (mercato interno ed esportazione). 9. Conservazione degli alimenti e/o catena del freddo. 10. Produzione di complementi d'arredo (sedie, porte, etc.) 	

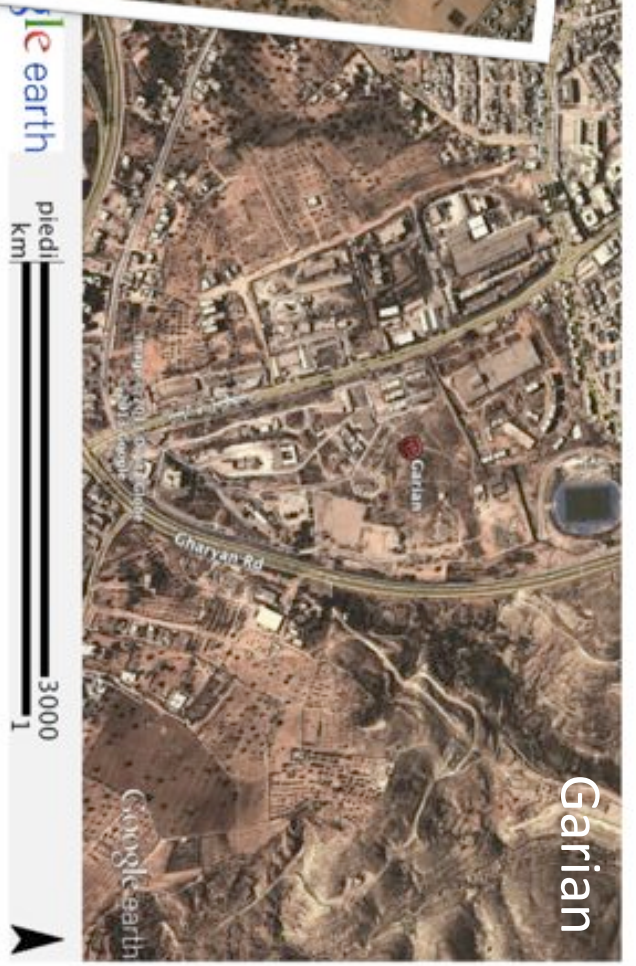
Immagini tratte dalle industrie libiche da riqualificare



Tajura



Garian



Gas Ben Gascir



Tatwer
www.mediterraneoncm.it



Programma di sviluppo agricolo


Introduction

The Authority of Investment of Jabel Al-Hasawna Jefara Water System for the Man-Made River performs the task of construction of agricultural projects on the water system in the area extending from Jabel Hasawna in the South-west to the coastal areas, north-west of the Libya.

The water flowing from this system reaches (2.5 million) cu.m. daily, of which (67.3 %) is allocated for agricultural purposes, i.e. equal to (1.7 million) cu.m. daily for irrigation of an area of (106233) hectares for the various projects included in investment plan for the authority. The investment works for the projects are represented in planning and division of the farms extension of irrigation systems, and construction of reservoirs for providing these projects with needs for irrigation water, including Tarhouna Agricultural project, a new agricultural project pertaining to the Authority

Location

Tarhouna Agricultural Project is located on the middle branch of the Hasawna-Jefara system of the Man-Made River, the road connecting Tarhouna and Bani Walid, about 120 km South-Eastwards from Tripoli.



Area and number of agricultural fields

Total area of the project: 1239 hectares
Irrigated area: 950 hectares
Number of fields: 13 fields, with areas ranging from (12-60) hectares

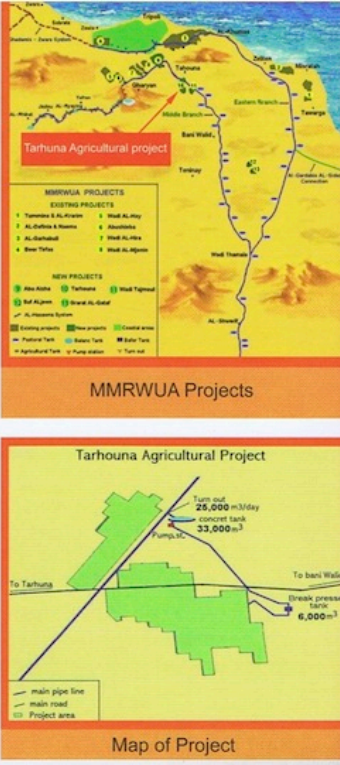
Water allocations

The Water allocations for the project are estimated at the rate of 25000 m3/day

Components of the project

- Concrete tank for Break pressure with capacity of (33000 m3).
- Pumping station containing four pumps with a flow rate of (120 liter/second).
- Concrete balance tank with capacity of (6000 m3).
- Subsidiary distribution tanks numbering (173) tanks each with capacity of (200 m3).

MMRWUA Projects



Map of Project

Introduction

This Authority was established under Decision No. (230) of (1995) , which was entrusted with the task of organizing and investment of the water of Jabel AlHasawna Jefara system , for convey of the Man-Made river water, through which (2.5 million) cu.m. of water are conveyed daily, of which (67.3 %) is allocated for agricultural purposes, i.e. equal to (1.7) million cu.m. daily for irrigation of an area of (106233) hectares in the various projects included in the investment plan for the Authority.

General Objectives of the Board


The Authority was entrusted, under decision for establishment thereof, with the tasks of investment of water MMRWUA of the Man-Made river project by construction of integrated agricultural projects, and agricultural projects with individual holding for achieving the following objectives:

- 1-Magnifying the water revenues by maximum production of agricultural and animal products, and increasing self-sufficiency rates to achieve food security and contribution to increasing the Gross Domestic Product (GDP) and higher economic growth rates.
- 2-Contribution to creation of employment opportunities in the agricultural field to a large number of Libyan families and involving them in the production process to achieve economic and social development.
- 3-Creation of a kind of populating settlement in the areas where agricultural projects are with individual holding is constructed, as would achieve social justice and improving living standard.
- 4-Contribution to achieving environmental objectives for saving the damaged areas from water shortage in the coastal strip, as indicated by the reports and studies for exposure to desertification and salination of their soil, thus threatening the economic activity therein by stoppage, and damage to the vegetation cover , thus necessitating supply of these areas by water and construction of tree belts and stopping the phenomenon of desertification and salination therein.

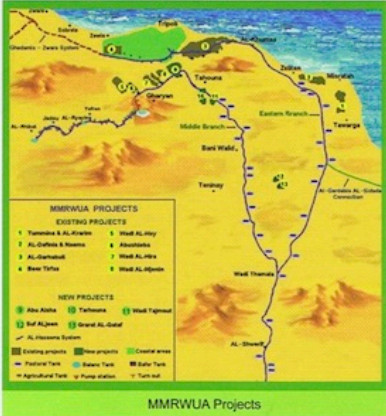
Works performed by the Authority

Studies:

- Soil study for an area of about (301587) hectares .
- Study of the existent project in Jefara plain area and the system branch.
- Study of western AlJabel area.
- Study of both branches area of the system.
- Study of the general agricultural plan and water management plan.
- Technical and economic feasibility study for investment of water of Jabel AlHasawna Jefara system in both western jabel areas and branches of the system.



MMRWUA Projects



Engineering designs

The Authority studied and prepared the Engineering designs and specifications for the various sites envisaged for investment of MMRWUA in the areas of Jefara plain, the western jabel and both branches of the system. The schedules for constructions stages were set out simultaneous with arrival of water to these sites.

MMRWUA Projects

Project	Irrigated areas (ha)	Number of Farms	Water Allocations Mm3/year
A-Existing Projects			
Tummina & Al-Krarim	2844	898	25.55
Al-Dafinia & Naema	2353	503	18.25
Garhabuli Agricultural	4438	1497	34.5
Bir Tifras Agricultural	2365	473	11.2
Wadi Al Hay Agricultural	3504	418	21.9
Abushieba Agricultural	1851	121	14.6
Al-Hira Agricultural	2679	484	25.5
Wadi Mjenin Agricultural	360	72	3.7
B-Regions effected at the coastal strip			
Private Properties	76870	19676	384.4
C-New Projects			
Tarhouna Agricultural	950	173	9.13
Abu Aisha Agricultural	3320	664	29.2
Tajmoot Agricultural	700	5 field	7.3
Suf Aljeen Agricultural	2000	24 field	34.67
Grarat Alqatad Agricultural	2000	27 field	----
D-water tanks at pastoral and rural regions			
		73 tanks	23.73
Grand total of locations and investment projects of MMRWUA	106233	25035	643.63



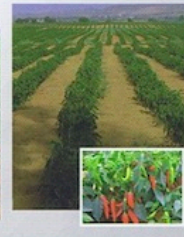
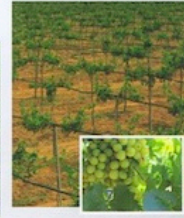
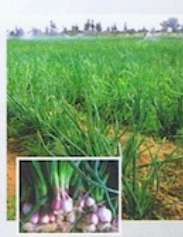
Philosophy of operation of the project

The project is feed from the feeding outlet (6+554 S) on the middle branch of the system at flow rate of (80000 m³/day) for gathering water in the balance tank with capacity of (40000 m³) which is located in a high area of the project, from which water flows by gravity through network of main and subsidiary pipelines for feeding all the project farms.



Investment

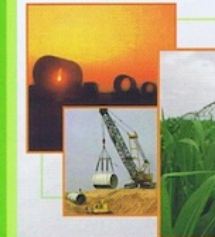
Within the framework of agricultural investment to MMRWUA projects, the project entered into investment by contracting with the national partnerships and local and foreign companies for investment in the project by graining cereal crops (wheat , barley and oats) as well as seasonal vegetables, in addition to olive trees of both dense and ordinary kinds, and fruit trees for providing the opportunity to the local and foreign investor to contribute to promotion of production for achieving Self-sufficiency in these products.



Free Libya

Ministry of Agricultural , Animal & Marine Wealth

The Authority for the Utilization of Jabel Al-Hasawna Al-Jefara Water System of The Man-Made River



Abu Aisha Agricultural Project

Introduction

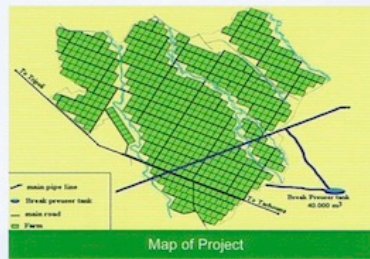
The Authority of Investment of Jabel Al-Hasawna Jefara Water System for the Man-Made River performs the task of construction of agricultural projects on the water system in the area extending from Jabel Hasawna in the South-west to the coastal areas, north-west of the Libya.

The water flowing from this system reaches (2.5 million) cu.m. daily, of which (67.3 %) is allocated for agricultural purposes, i.e. equal to (1.7 million) cu.m. daily for irrigation of an area of (106233) hectares for the various projects included in Investment Plan for the Authority.

The investment works for the projects are represented in planning and division of the farms extension of irrigation systems and construction of reservoirs for providing these projects with needs for irrigation water, including Abu Aisha Agricultural project, a new agricultural project pertaining to the Authority.

Location

Abu Aisha Agricultural Project is located on the middle branch of Hasawna – Jefara system of the Man-Made River in Jefara plain area, at a distance of about (60 km) southwards, along the road leading from Gasr Ben Ghashir to Tarhouna.



Area and number of farms

Total area of the project: 4700 hectares
Irrigated area: 3320 hectares
Number of farms: 664 farms
Farm area: 5 hectares

Water allocations

Water allocations for the project are estimated at the rate of 80000 m³/day.

Project components



- Concrete balance tank with capacity of 40000 m³.
- Transport pipeline made of ductile steel from the feeding outlet to the balance tank 2900m long and (1000 mm) diameter.
- Feeding pipeline to the project from the balance tank to the beginning of distribution network, made of ductile steel pipes (2500 m) long and 1400 mm diameter.
- Main irrigation network (39km) long with diameters (300-1400 mm) made of ductile steel pipes.
- Subsidiary irrigation network (273 km) long with diameter (90-315 mm) made of UPVC pipes.





- Substation 66/11 KVA for operation pumping station.
- Ductile steel water transport pipeline, (700 m) long and (700 mm) diameter from the feeding outlet to concrete pressure reduction tank (33000 m³).
- Ductile steel water transport pipeline (85 m) long and (800 mm) diameter from the concrete pressure reduction tank (33000 m³) to the pumping station.
- Ductile steel water transport pipeline (4654 m) long and (600 mm) diameter of connecting the pumping station with the concrete balance tank (6000 m³).
- Main distribution network (55 km) long, with diameter ranging between (90-500 mm) made of plastic (PVC) pipes, extending from the concrete balance tank (6000 m³) to the subsidiary distribution tanks.

Philosophy of Operation of the project

The project is fed by the feeding outlet (500+576) on the middle branch of the system at flow rate of (25000 m³/day) for water in the concrete break pressure tank with capacity of (33000 m³). Through the pumping station adjacent to water is pumped to the concrete balance tank with capacity of (6000 m³) located in a high area of the project. From this tank, water flows by gravity to reach all distribution subsidiary tanks, through which the whole project is fed for irrigation of the agricultural fields.



Investment

Within the framework of agricultural investment to MMRWUA projects, The project starts the process of production by using linear irrigation system to cultivate different crops according to the suggested crop pattern which is a cereal the winter agricultural season,



But in the summer agricultural season, corn crops will be cultivated.



This is addition to growing dense olive and fruit trees (peaches, apricots and pears) by using the drip irrigation system.



Prepared by / Follow up Department
Information and Documentation Division
+218 21 5680011 83512
+218 21 5680010 www.mmrwua.com

Free Libya

Ministry of Agricultural, Animal & Marine Wealth

The Authority for the Utilization of Jabel Al-Hasawna Al-Jefara Water System of The Man-Made River



Tarhouna Agricultural project

Introduction

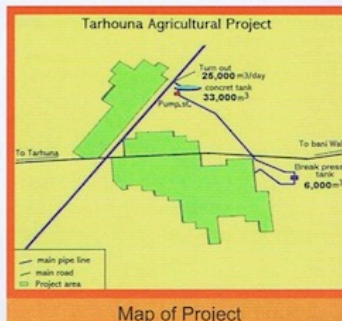
The Authority of Investment of Jabel Al-Hasawna Jefara Water System for the Man-Made River performs the task of construction of agricultural projects on the water system in the area extending from Jabel Hasawna in the South-west to the coastal areas, north-west of the Libya. The water flowing from this system reaches (2.5 million) cu.m. daily, of which (67.3 %) is allocated for agricultural purposes, i.e. equal to (1.7 million) cu.m. daily for irrigation of an area of (106233) hectares for the various projects included in investment plan for the authority. The investment works for the projects are represented in planning and division of the farms extension of irrigation systems, and construction of reservoirs for providing these projects with needs for irrigation water, including Tarhouna Agricultural project, a new agricultural project pertaining to the Authority

Location

Tarhouna Agricultural Project is located on the middle branch of the Hasawna-Jefara system of the Man-Made River, the road connecting Tarhouna and Bani Walid, about 120 km South-Eastwards from Tripoli.



MMRWUA Projects



Map of Project

Area and number of agricultural fields

Total area of the project: 1239 hectares
Irrigated area: 950 hectares
Number of fields: 13 fields, with areas ranging from (12-60) hectares

Water allocations

The Water allocations for the project are estimated at the rate of 25000 m³/day

Components of the project



- Concrete tank for Break pressure with capacity of (33000 m³).



- Pumping station containing four pumps with a flow rate of (120 liter/second).



- Concrete balance tank with capacity of (6000 m³).



- Subsidiary distribution tanks numbering (173) tanks each with capacity of (200 m³).

Water situation

From the previous drilling results and reports prepared in this respect by the General Water Authority it transpired that Kekala formation depth ranges between (900-1250 m) has good productivity between (200-350 m³/hour) by self-flow and piezomatic level reaching (6.5m) above ground level. The water of this reservoir is hot, reaching a temperature (50°C) . It is envisaged to drill (27) productivity wells for feeding the project, and (5) control level of these wells.



Use of modern methods to cool the hot water

In view of the high financial cost of the project when using the traditional methods for cooling hot water, the Board endeavored to find alternative means at the lowest cost, to achieve direct cooling methods for the hot artesian underground water after investigation and research the Board in order to avoid large costs (funds), decided to use the pivot irrigation system, which has special specification with the use of potential energy . The well pressure will be used for operation of the pivot irrigation machine which will reduce the water temperature to 25-30°C , so that the water will become suitable for irrigation of all agricultural crops. This method was applied in USA and Algeria.

Introduction

The Authority of Investment of Jabel Al-Hasawna Jefara Water System for the Man-Made River performs construction of agricultural projects in the area extending from Jabel Hasawna in the South-west to the coastal areas, north-west of the Libya.

In light of the availability of underground water in the Grarat AlQatraf area, existence of large areas of lands with good soil, the Authority considers that it is possible to execute Grarat AlQatraf project and achieve agricultural development in the area by utilization of the natural resources available as indicated in the studies.

However, this water and its suitable qualities for agricultural purposes cannot be utilized directly, in view of its high temperature degree reaching more than (50°C). Hence, it has become necessary to find a means for cooling this water, as opposed to previously traditional means as experienced in certain projects irrigated by hot water.

Location

Grarat AlQatraf area, a distance of 90 km south-east of Bani Walid, and about 2 km from ElMunasser village.



Investment

Within the framework of agricultural investment to MMRWUA projects, The project starts the process of production by using pivot irrigation machines with special specifications for transfer of modern agricultural technologies to reach to the maximum production of food by growing the fundamental crops (wheat, barley, oats, corn and sorghum).

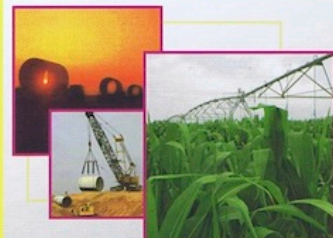
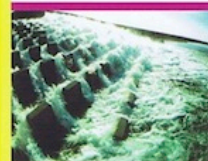


Prepared by / Follow up Department
Information and Documentation Division
☎ +218 21 5680011 ☎ 83512
☎ +218 21 5680010 🌐 www.mmrwua.com

Free Libya

Ministry of Agricultural , Animal & Marine Wealth

The Authority for the Utilization of Jabel Al-Hasawna Al-Jefara Water System of The Man-Made River



Grarat Alqatraf Agricultural project

Topography

The plain topography periods in the area, being a relatively low area. The project area is surrounded by hilly areas from the southern and eastern side, where rain water is gathered, and considered as a natural discharge for certain wadis.

Soil studies



The detailed soil study prepared by the Engineers of The Authority indicated that most of the project area consists of soil belonging to 2nd and 4th classification units, as suitable for permanent irrigation purposes from Grade (Good & Medium). From the economic feasibility study performed by the Board for Grarat Al-Qatraf site, it transpired that the area is characterized by availability of underground water on which construction of the project.



MMRWUA Projects

Area and number of fields

Total area of the project: 2000 hectares
Number of fields: 27 fields
Field area : (50-80) hectares
Wells productivity :200m³/hour/well

Climate

The semi-desert climate dominates the area. The ground temperature average in summer reaches 30°C. In winter, the temperature ranges between 10-25°C and Humidity decreases in the area, and the wind speed from various directions increases.



- Transport pipeline from the pumping stations to the balance tanks (8 km) long and (700 mm) diameter.
- (3) Balance tanks with capacity of (20000 m3) each.
- Main distribution systems from the ductile steel pipelines (293 km) long, and (125-1000 mm) diameters.
- Subsidiary distribution system from plastic (PVC) pipelines (217 km) long and (63-225 mm) diameter.
- Substation 30/11 KVA for operation main and subsidiary pumping station.

Feeding outlets (Turn outs)

- Outlet No.(1) at flow rate of (34000 m3/day)
- Outlet No.(2) at flow rate of (42000 m3/day)
- Outlet No.(3) at flow rate of (41000 m3/day)
- Outlet No.(4) at flow rate of (36776 m3/day)

Crop Pattern

Olives, grapes, winter and summer vegetables, fruits citrus, wheat, barley, alpha – alpha , and palms.



Vegetation cover prevailing in the area

The vegetation cover of the project consists of the following:

- Fruitful trees (Figs, olives, almonds and palms)
 - Forest trees (Dense and medium dense forest trees, mostly wind shields between the farms and on sides of the main and subsidiary roads)
 - Seasonal crops (Fodder, cereals and vegetables).
 - Pastural grass , retem, amarouth and esparto
- The climatic conditions and topography control distribution and density of each kind of the vegetation cover of the project.



Objectives of supplying the project with the Man-Made river water

- Achievement of population settlement in the area.
- Maintaining the existent farming.
- Maintaining the environment.
- To increase productivity and improvement of production quality as per the crop structure.

Prepared by / Follow up Department
Information and Documentation Division
+218 21 5680011 83512
+218 21 5680010 www.mmrwua.com

Free Libya

Ministry of Agricultural , Animal & Marine Wealth

The Authority for the Utilization
of Jabel Al-Hasawna Al-Jefara Water
System of The Man-Made River



Garhabulli Agricultural project

Introduction

The Authority of Investment of Jabel Al-Hasawna Jefara Water System for the Man-Made River performs the task of construction of agricultural projects on the water system in the area extending from Jabel Hasawna in the South-west to the coastal areas, north-west of the Libya.

The water flowing from this system reaches (2.5 million) cu.m. daily, of which (67.3 %) is allocated for agricultural purposes, i.e. equal to (1.7 million) cu.m. daily for irrigation of an area of (106233) hectares for the various projects included in Investment Plan for the Authority.

The investment works for the projects are represented in planning and division of the farms, extension of irrigation system, and construction of reservoirs for providing these projects with needs for irrigation water, including Garhabulli Agricultural project, an existent agricultural project .

Location

Garhabulli Agricultural Project is located on the eastern branch of Hasawna -Jefara system of the Man-Made River, at a distance of about 45 km north-eastwards from Tripoli.



Area and number of farms

Total area of the project: 28077 hectares
Irrigated area: 4438 hectares
Number of farms: 1497 farms

Water allocations

The water allocations for the project are estimated at about 34.5 million m3/year.



The project components

The project is fed through four feeding outlets on the eastern branch of the system at flow rate of (153,776 m3/day).

The project consist of the following

- (2) Main pumping stations with operational capacity of (467 liters/second).
- (2) Supplementary pumping stations with operational capacity of (272.8 liters/second).
- (18) Subsidiary pumping stations ,with operational capacity of (139.2 liters/second).
- (2) Reception tanks attached to both main pumping stations in the project, with capacity of (20000 m3)each



Tatwer



MEDITERRANEO NCM Ltd Co.

Network Commerciale Mediterraneo

MALTA

Registration No. C 47825 Vat No.: MT 1967-7315

Malta (MT) 20, Cannon Road, SANTA VENERA SVR 9039

Tripoli (LY) Str. En Zara (immediately after the district "Furnagi")

www.mediterraneoncm.it