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Water Resources
&
Their Economics in Jordan

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Preface

One of the main objectives of the Computer Technology, Training and Industrial Studies Center, is to conduct applied socio-economic research studies on various issues pertinent to the Jordanian economy, to provide the concerned parties with policy recommendations that would overcome the arising economic problems which obstruct the development process.

Accordingly, the center conducted this economic study which was financed by Fredrich Ebert Stiftung of Germany (FES), and aimed at discussing various aspects of water sector in Jordan, mainly the economics of the groundwater resources, and suggesting some recommendations for future studies.

This study reflects the continuous fruitful cooperation between the Royal Scientific Society / Computer Technology, Training and Industrial Studies Center and FES, which we hope will continue in the future to assist in facilitating the development process by tackling the stemming economic problems.

Moreover, we hope that this study will be of value to policy makers, researchers, and other concerned parties.

The center welcomes any constructive comments on this study, which will be taken into consideration in our future studies.

Dr. Saqer Abdel-Rahim

Director, Computer Technology Training
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List of Abbreviations:

AIE	Amman Industrial Estate (Sahab)
BOD	Biochemical Oxygen Demand
COD	Chemical Oxygen Demand
EWR	Employment – Water Ratio
M&I	Municipal and Industrial
JVA	Jordan Valley Authority
L/C/D	Liters/capita/day
MCM	Million Cubic Meters
MWI	Ministry of Water and Irrigation
NPV	Net Present Value
O&M	Operation and Maintenance
TDS	Total Dissolved Solids
TSS	Total Suspended Solids
UAE	United Arab Emirates
UFW	Unaccounted for Water
WAJ	Water Authority of Jordan
WPI	Water Poverty Index
WSI	Water Stress Index

Chapter 1: Introduction

1.1. Background

Jordan is one of the water poorest countries in the world. Water resources are limited in quantity and vulnerable in quality. Present uses are exceeding renewable supplies and the difference is being met by unsustainable practices. Costs of water delivery to different users are regularly increasing. Costs recovery is a constant challenge facing the utilities and the government. The difference between costs and revenues is being subsidized by the Government or funded by donors. Water-resource management practices are neither financially sustainable nor environmentally tolerable.

1.1.1. Water Poverty Index

Special indexes were designed to measure the availability of water resources in various countries. One of these indexes is the Water Poverty Index (WPI). The WPI is an indicator of the richness or poverty of an area's available water resources (renewable and non-renewable) to cover its population's domestic uses and irrigation requirements necessary to cover its food needs.

Salameh E. in "Redefining the Water Poverty Index" calculated the WPI taking into consideration factors that play a major role in the water situation of arid countries such as Jordan. These factors are the extent of rainfed agriculture, diversities in such climatic zones and the status of wastewater treatment and reuse according to the following equation:

$$WPI = [(A1/3 + A2/2 + A3/1.5 + A4)/125P + WR/100P - 1 + T] 0.0825/f$$

Where: A1 = Area (km²) of lands receiving an average annual precipitation of 300-400 mm/year. These lands produce only about one third as much per unit of cultivation as irrigated land within the same area .

A2 = Area (km²) of lands receiving an average rainfall of 400-500 mm/year and produce about one half as much.

A3 = Area (km²) of lands receiving 500-600 mm/year yield two- thirds as much per cultivated unit as comparable irrigated land within the same zone.

A4 = Area (km²) of lands receiving more than 600 m/year of precipitation have the same potential productivity as irrigated soils.

T = Ratio of treated wastewater used in irrigation to the amount of household water returned as wastewater.

P = Population number in the area.

WR = Available water resources in m³/year.

f = Variable that accounts for the effects of temperature diversities on the water poverty index.

The WPI was according to the above formula was calculated for several Middle Eastern countries (Table 1): Jordan, Syria, Egypt, Palestine (West Bank), Israel, Saudi Arabia, and the United Arab Emirates (UAE). Results based on the assumption that all the rainfed area within a country is under production, show that Syria, Palestine (West Bank), Saudi Arabia and Israel are not water poor. Their natural resources can satisfy their household uses and 100% of food coverage. Jordan, Egypt, and UAE are water poor since they can only cover 15.5%, 37.5%, and 9.6% respectively of their food needs.

Assuming that half the rainfed area is under production (a more likely scenario due to urbanization and road projects) then only Syria and Palestine do not fall within the Water Poor countries category, while Jordan can satisfy only 12.3% of its required food supply. ^[17]

Table 1: Calculation of the WPI for Various Countries in the Middle East ^[17]

Country	Area (km ²) Receiving an Average Precipitation (mm/yr) of:				Population (Million)	f	Available Water Resources MCM/yr	T	WPI	WPI*
	300-400	400-500	500-600	>600						
Jordan	900	720	1,170	0.0	4.2	1.65	750	65%	0.155	0.123
Syria	15,600	12,500	9,000	9,000	13.0	1.50	21,000	30%	1.8	1.23
Egypt	0.0	0.0	0.0	0.0	62	2.00	60,000	40%	0.375	0.375
Palestine (WB)	977	933	1,470	622	1.1	1.45	120	40%	1.025	0.50
Israel	1,803	1,803	3,000	1,200	5.0	1.50	2,000	70%	1.46	0.955
Saudi Arabia	167,000	0.0	0.0	0.0	13	2.00	3,450	40%	1.5	0.79
UAE	0.0	0.0	0.0	0.0	1.0	1.9	284	50%	0.096	0.096

* WPI: Water Poverty Index considering that half the rainfed area is under production.

T Ratio of treated wastewater used in irrigation to the amount of household water returned as wastewater.

f Calculated factor to account for the effects of temperature diversities on the water poverty index.

1.1.2. Water Stress Index

Water Stress Index is another indicator of the availability of water within a certain area. Unlike the Water Poverty Index, the Water Stress Index takes into consideration only the renewable water resources of the country. The Water Stress Index is usually measured as the number of people per "flow unit" which equals to one MCM. Therefore, 600 persons per flow unit is an indication of water stress, 1,000 persons or more per flow unit is an indication of water scarcity, while 2,000 persons or more per flow unit is an indication of absolute scarcity of water. For ease of use and comparison the data is recalculated and presented as amount of water available per capita per year. Therefore, a WSI of less than 1,700 m³/capita/year indicates *Water Stress*, a WSI of less than 1,000 m³/capita/year is an indicator of *Water Scarcity*, while a WSI of less than 500 m³/capita/year is an indicator of *Absolute Scarcity*.

In 1955 Jordan possessed 906 m³/capita/year, which is an indicator of *Water Scarcity*. By 1990 the WSI decreased to 327 m³/capita/year thus placing Jordan in the *Absolute Scarcity* category. Population projections for the year 2025 further decrease the WSI to approximately 121 m³/capita/year. By the 1980's, Jordan's water withdrawals formed 110% of renewable water supplies. Furthermore, the doubling time for

Jordan's population is one of the lowest in the region (19.3 years) compared to 33.0 for Qatar, 28.9 for Bahrain, 24.8 for United Arab Emirates, and 46.2 for Israel. Table 2 presents the annual renewable fresh water per capita in selected countries. Table 3 presents actual and projected water scarce countries. Table 4 lists the countries which withdrawals exceed 100% of their renewable water supplies, along with the population doubling years.

Table 2: Annual Renewable Fresh Water Availability per Capita in Selected Countries Ranked by 1990 Availability ^[16]

Country	Annual Renewable Fresh Water Availability (m ³ /capita/year)		
	1955	1990	2025 Medium
Djibouti	147	23	9
Kuwait	808	75	57
Malta	96	85	69
Qatar	1,427	117	68
Bahrain	672	179	89
Barbados	221	195	164
Singapore	459	221	181
Saudi Arabia	1,266	306	113
United Arab Emirates	6,195	308	176
Jordan	906	327	121
Yemen	1,098	445	152
Israel	1,229	461	264
Tunisia	1,127	540	324
Cape Verde	1,184	551	258
Kenya	2,087	636	235
Burundi	1,339	655	269
Algeria	1,770	689	332
Rwanda	2,636	897	306
Malawi	2,839	939	361
Somalia	2,500	980	363
Libya	4,105	1,017	359
Morocco	2,763	1,117	590
Egypt	2,561	1,123	630
Oman	4,240	1,266	410
Cyprus	1,698	1,282	996
South Africa	3,249	1,317	683
South Korea	2,940	1,452	1,253
Poland	2,053	1,467	1,279
Belgium	1,906	1,696	1,706
Haiti	3,136	1,696	838
Lebanon	3,088	1,818	1,113
Peru	4,612	1,856	1,071
Comoros	5,256	1,878	620
Iran	6,203	2,025	816
Mauritius	3,854	2,047	1,575
Syria	6,500	2,087	732
United Kingdom	2,344	2,090	1,992
Ethiopia	5,073	2,207	842
Lesotho	5,039	2,290	1,057
Zimbabwe	7,061	2,312	1,005
China	4,597	2,427	1,818
India	5,227	2,464	1,496
Sri Lanka	4,930	2,498	1,738

Table 2 - Continued:

Country	Annual Renewable Fresh Water Availability (m ³ /capita/year)		
	1955	1990	2025 Medium
Germany	2,843	2,516	2,384
Denmark	2,928	2,529	2,529
Nigeria	8,304	2,838	1,078
Spain	3,801	2,849	2,733
Tanzania	8,525	2,924	1,025
Afghanistan	5,137	3,020	1,091
North Korea	7,386	3,077	2,010
Burkina Faso	6,980	3,114	1,237
Italy	3,845	3,243	3,325
France	4,260	3,262	3,044
Thailand	7,865	3,274	2,477
Cuba	5,454	3,299	2,694
Madagascar	8,476	3,331	1,185
Togo	8,485	3,398	1,280
Jamaica	5,383	3,430	2,365
Ghana	9,204	3,529	1,395
Turkey	8,509	3,626	2,186
El Salvador	8,583	3,674	1,952
Uganda	11,880	3,759	1,437
Pakistan	10,590	3,962	1,803
Mozambique	8,601	4,085	1,598
Trinidad and Tobago	7,073	4,126	2,867
Mexico	11,396	4,226	2,597
Mauritania	9,855	4,387	1,778
Japan	6,091	4,428	4,306
Senegal	12,451	4,777	2,049
Sudan	11,899	4,792	1,993
Philippines	13,507	5,173	3,072
Benin	12,316	5,625	2,105
Vietnam	11,746	5,638	3,215
Niger	16,362	5,691	2,067
Czechoslovakia (former)	6,950	5,810	5,078
Greece	7,406	5,828	5,840
Netherlands	8,371	6,023	5,093
Iraq	18,441	6,029	2,356
Cote d'Ivoire	22,974	6,177	1,950
Namibia	15,900	6,254	2,399
Lithuania	9,130	6,433	5,804
Albania	15,120	6,462	4,711
Portugal	7,665	6,688	6,519
Mali	15,853	6,729	2,522
Chad	13,389	6,843	2,944
Switzerland	10,040	7,449	6,492
Nepal	19,596	8,686	4,244
Romania	11,895	8,963	7,918
Swaziland	23,198	9,268	4,002
United States	14,934	9,913	7,695
Hungary	11,704	10,897	11,062
Yugoslavia	15,126	11,130	10,161
Estonia	15,517	11,371	10,804
Mongolia	29,413	11,416	5,454
Austria	12,955	11,670	10,892
Zambia	34,872	11,797	4,576
Guatemala	33,810	12,613	5,354
Latvia	16,874	12,654	12,350

Table 3: Countries Experiencing Water Scarcity Based on Availability of Less than 1,000m³ of Renewable Water/capita/Year

Water Scarce Countries in 1955	Countries Added to Scarcity Category by 1990	Countries Added to Scarcity Category by 2025 Under All UN Population Growth Projections	Countries Added to Scarcity Category by 2025 only if They Follow UN Medium or High Projections *
Malta Djibouti Singapore Bahrain Kuwait Jordan	Qatar Saudi Arabia United Arab Emirates Yemen Israel Tunis Cape Verde Kenya Burundi Algeria Rwanda Malawi Somalia	Libya Oman Morocco Egypt Comoros South Africa Syria Iran Ethiopia Haiti	Cyprus Zimbabwe Tanzania Peru

* Cyprus will have more than 1,000 m³ of renewable fresh water annually per capita in 2025 if it follows either the UN low or medium population projection. Zimbabwe, Tanzania and Peru will avoid falling below 1,000 m³ per capita only if they follow the UN low projection.

Table 4: Countries Abstracting Above 100% of Their Renewable Water Supplies

Country	Water Withdrawals as a Percentage of Renewable Water Supplies, Late 1980s	Years Required for Population to Double at Current Rate of Natural Increase*
Libya	374%	20.4
Qatar	174%	33.0
United Arab Emirates	140%	24.8
Yemen	135%	21.7
Jordan	110%	19.3
Israel	110%	46.2
Saudi Arabia	106%	21.7
Kuwait	>100%	23.1
Bahrain	>100%	28.9

* Excludes rates of migratory flows, which are significant in some of these countries.

1.2. Objectives of the Study

This study seeks to achieve the following objectives:

- Review water resources in Jordan both renewable and non-renewable, including traditional and non-traditional resources, and supplies from various sources;
- Establish water demands of current and future user sectors. Draw demand and supply curves for future projections of the municipal, industrial, and agricultural sectors;
- Present water resources management practices and provide an overview and recommendations on groundwater management practices;
- Investigate water utilities costs and revenues (JVA and WAJ) including the operation and maintenance costs;
- Discuss water productivity in terms of economic returns in agricultural and industrial sectors;
- Investigate the economics of groundwater resources and study the optimal depletion path for the groundwater in Jordan;
- Provide recommendations for future studies or appropriate actions.

Chapter 2: Water Resources in Jordan

Jordan's water resources consist primarily of surface water and groundwater. Renewable water resources are estimated at about 1,075 MCM/year, with approximately 800 MCM/year of renewable surface water and 275 MCM/year renewable groundwater distributed among 11 basins. Usable surface water constitutes 505 MCM/year distributed among 15 catchment areas. An additional 143 MCM/year of groundwater is estimated to be available from fossil aquifers. Brackish aquifers are not yet fully explored, but at least 50 MCM/year is expected to be available for urban uses after irrigation, primarily in the Jordan River Valley, and can provide at least an additional 80 MCM/year until the year 2010.

2.1. Traditional and Non-Traditional Resources

2.1.1. Rainfall

Jordan is characterized by its arid climate and variation in annual amount of rainfall across its territories. The amount of rainfall decreases when moving from north to south and from west to east. Annual rainfall reaches 600 mm in the Eastern Heights adjacent to the Jordan Rift Valley and decreases to less than 50 mm in the desert plains and south Jordan. The total annual rainfall in Jordan is estimated at 8.5 billion cubic meters. Approximately 85% of rainfall evaporates; the remainder flows into wadis and partially infiltrates into ground water aquifers. About 92% of the land area of Jordan receives less than 200 mm/year of precipitation. In order to compensate for the water shortages, many families collect rainwater in underground cisterns for later use in irrigation and cleaning purposes. The amount of this water varies with the amount of rainfall and its intensity from one year to another.

2.1.2. Surface water

There are 15 drainage basins in Jordan that have a total average surface flow of approximately 693 MCM/year (Table 5). Of the total amount of the surface flow: 359 MCM/year consist of the base flow and approximately 334 MCM/year consist of flood flow. Flows vary considerably between seasons and years. The usable amount of surface water amounts to approximately 505 MCM/year and depends on the storage capacity and diversion of uncontrolled flows.

The greatest source of surface water in Jordan is the Yarmouk River Basin which contributes (including water flowing from Syrian territories within the Yarmouk River) almost 40% of the annual total. In 1997, 38% of water budget was contributed from surface waters and reached 328.5 MCM.

Table 5: Long-term Flows for Jordan's Surface Water Basins (MCM/year)

Surface Water Basin	Base Flows (MCM/Year)	Flood Flow (MCM/Year)	Total Flow (MCM/Year)
Yarmouk River	105.0	155.0	260.0
Jordan River Valley	19.3	2.4	21.7
North Rift Side Wadis	36.1	13.9	50.0
South Rift Side Wadis	24.8	7.7	32.5
Zarqa River	33.5	25.7	59.2
Dead Sea Side Wadis	54.0	7.2	61.2
Wadi Mujib	38.1	45.5	83.6
Wadi Hasa	27.4	9.0	36.4
Wadi Araba North	15.6	2.6	18.2
Wadi Araba South	2.4	3.2	5.6
Southern Desert	0.0	2.2	2.2
Azraq	0.6	26.8	27.4
Sirhan	0.0	10.0	10.0
Hammad	0.0	13.0	13.0
Jafer	1.9	10.0	11.9
Total	358.7	334.2	692.9

2.1.3. Groundwater

Groundwater is the major source of water supply in the country. In 1997, Jordan's water budget was approximately 876 MCM. Of these, 486 MCM were provided from groundwater resources: 413.4 MCM were pumped from renewable groundwater sources with an over pumping of 138 MCM; and 72.9 MCM from non-renewable groundwater resources.

There are 12 renewable and non-renewable groundwater basins in Jordan most of which are comprised of more than one groundwater aquifer system. The Disi aquifer, along with the Amman-Wadi Sir aquifer system and the Basalt aquifer contain approximately 80% of Jordan's known groundwater. The total recharge to groundwater aquifers in Jordan reaches approximately 275 MCM/year (Table 6).

Table 6: Safe Yields of Jordan's Groundwater Basins

Groundwater	Safe Yield (MCM/Year)	Groundwater Aquifers
Yarmouk Basin	40.0	B4, B2/A7, A2
Jordan River Side Wadis	15.0	A7, A1-6, Kurnub
Jordan Valley Basin	21.0	Alluvium
Amman - Zarqa Basin	87.5	Basalt, B2/A7, A4, A2, Kurnub
Dead Sea Basin	57.0	B2/A7, A4, A2
Disi	0	Ram (non-renewable)
Wadi Araba North Basin	3.5	Alluvium, B2/A7, Kurnub, Ram
Red Sea Basin	5.5	Alluvium, Ram
Jafer Basin	9.0	B4, B2/A7
Azraq Basin	24.0	Basalt, B4, B2/A7, Kurnub
Wadi Sirhan Basin	5.0	B5/4, B2/A7/A1-6, Kurnub
Hammad Basin	8.0	B4
Total	275.5	

Jordan suffers from overexploitation of its renewable and non-renewable groundwater resources. Over the last few years over pumping rate has exceeded 200 MCM/year

resulting in drastic decrease of aquifer water levels (Table 7). In 1997 alone, a total amount of 138 MCM was over-pumped from groundwater resources.

Table 7: Decline in Aquifer Levels in Jordan

Observation Well	First Observation		Most Recent Observation		Mean Annual Drop (m/yr)
	Year	Water Level	Year	Water Level	
Yarmouk	1974	110 m	1999	142 m	1.28
Amman/Zarqa	1986	168 m	1999	188 m	1.50
Mujib	1987	168 m	1996	190 m	2.44
Amman/Zarqa	1988	65 m	1999	75 m	0.91

Source: Ministry of Water and Irrigation

At present, water is extracted at the safe yield rate from four Jordanian basins, while the other seven basins suffer from over abstraction that ranges from 135% – 225% of the safe yield limit set for these basins. The over extraction problem is exacerbated by the fact that well permits used to be issued at random without specifying the maximum allowable abstraction rate, and many of the wells were not metered. The Ministry of Water and Irrigation has reduced the numbers of licenses issued since the 1990's and has worked to insure that meters are installed on more than 80% of operating wells (Table 8).

Table 8: Number of Wells and Meters in Jordan (1999)

Field Office	Working Wells	Other Wells	Meters Installed by Owners		Meters Installed By WAJ		Total Meters Installed	
			No.	%	No.	%	No.	%
Amman	291	28	104	36	159	55	263	90
Azraq	142	49	4	3	89	63	93	65
Mafrq	231	52	60	26	119	52	179	77
Jiza	236	10	118	50	108	46	226	96
Ramtha	153	1	28	18	124	81	152	99
Deir Alla	158	114	5	3	39	25	44	28
Karak	76	8	44	58	24	32	68	89
Maan	72	13	21	29	38	53	59	82
Disi	82	12	66	80	4	5	70	85
Total	1441	287	450	31	704	49	1154	80

Source: Ministry of Water and Irrigation

2.1.4. Wastewater

Due to acute water shortages in Jordan, treated wastewater has become an essential resource in the Kingdom's water strategy. Nevertheless, planned direct reuse of treated wastewater is limited to irrigation of trees in the vicinity of the treatment plants, and discharges to wadis where the treated wastewater reaches storage reservoirs and is then used for restricted irrigation.

The As-Samra WWTP, which is the largest wastewater treatment plant in Jordan, contributes approximately 75% of treated wastewater in Jordan. Treated effluent from As-Samra plant is discharged into the Wadi Zarqa Basin system and flows to the King Talal Reservoir (KTR) located about 42 Km from the plant. In the KTR, treated wastewater is mixed with water from Zarqa River. The mixing ratio is declining due to increased effluents and reduced base flow. Water from this reservoir is used to irrigate lands within the middle and southern sections of the Jordan Valley.

The Ministry of Water and Irrigation operates 14 wastewater treatment plants across the Kingdom. In 1997, effluent from Jordanian wastewater treatment plants reached 70 MCM of which 61 MCM were reused (7% of water budget). Approximately 95% of the total treated wastewater is used in irrigation. Treated effluent of major urban areas is added to the stock of irrigation water and in 1997 constituted more than 10% of irrigation water resources.

Table 9 presents treatment efficiency measured as the ratio of effluent BOD to inflow BOD of wastewater treatment plants in Jordan, in comparison to their design capacity and method of treatment. The treatment plants are arranged by their efficiency in descending order. It may be noticed that the lowest efficiencies are those of the waste stabilization ponds, though it is not conclusive since many other factors such as method of operation, year of operation and water quality are not taken into consideration. Table 10 provides the quantity of daily inflow (1987-1999) to Jordanian wastewater treatment plants, and Table 11 presents a comparison between October 1999 actual parameter measurements and design parameters for Jordanian wastewater treatment plants.

Table 9: Treatment Efficiency of Jordan's Wastewater Treatment Plants in 1999

Plant	Start Year	Treatment Process	Design Inflow BOD (mg/l)	Inflow BOD ₅ (mg/l)	Effluent BOD ₅ (mg/l)	Efficiency	Design BOD: Inflow BOD
Salt	1981	AS	1,090	845	11	99%	78%
Wadi Arab	1999	AS	995	811	10	99%	82%
Fuheis	1997	AS	995	677	11	98%	68%
Jerash	1983	AS	1,155	1,119	33	97%	97%
Abu-Nseir	1986	RBC AS	1,100	634	17	97%	58%
Irbid	1987	BF AS	800	1,179	47	96%	147%
Tafila	1988	BF MP	1,050	942	35	96%	90%
Kufanja	1990	BF MP	850	1,331	65	95%	157%
Baq'a	1988	BF MP	900	1,434	80	94%	159%
Karak	1988	BF MP	1,080	729	44	94%	68%
Wadi el Seer	1997	AS	780	622	50	92%	80%
As-Samra	1985	WSP	526	760	118	84%	144%
Ramtha	1988	WSP	820	1,194	239	80%	146%
Madaba	1988	WSP	850	1,382	282	80%	163%
Maan	1990	WSP	970	549	118	79%	57%
Aqaba	1987	WSP	900	353	111	69%	39%
Mafrq	1988	WSP	525	566	198	68%	108%

* AS Activated Sludge
BF Biological Trickling Filters
MP Maturation Ponds
RBC Rotating Biological Contractor
WSP Waste Stabilization Ponds

Table 10: Quantity of Daily Inflow into WWTPs in Jordan in m³/day^[19]

Year	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
As-Samra	63,386	82,568	90,816	96,216	97,833	128,049	124,263	129,177	143,441	148,795	156,746	168,857	166,844
Irbid	1,442	1,573	3,148	5,066	6,175	6,543	6,777	7,238	7,620	8,149	9,287	8,474	4,612
Aqaba	2,820	2,984	4,100	4,118	3,885	4,202	4,925	5,488	6,014	6,666	7,341	8,219	8,774
Salt	3,136	3,592	3,580	3,625	3,332	3,916	3,851	3,761	3,870	4,053	4,077	3,825	3,166
Jerash	1,017	1,041	1,242	1,316	1,510	1,349	1,387	1,354	1,450	1,524	1,555	1,808	1,603
Mafrq	-	782	950	1,091	1,395	1,340	1,377	1,317	1,290	2,379	2,638	2,297	1,933
Baq'a	-	1,254	3,014	4,204	4,998	4,770	5,170	5,214	6,920	6,891	7,301	8,783	10,284
Karak	-	296	496	582	718	705	827	1,071	1,165	1,266	1,164	1,122	1,146
Abu Nseir	-	1,360	1,311	1,325	1,316	1,431	1,514	1,532	1,497	1,463	1,486	1,499	1,411
Tafila	-	-	199	345	537	625	754	936	1,013	966	747	862	851
Ramtha	-	-	472	553	672	1,107	1,218	1,247	1,431	1,414	1,675	1,617	2,174
Maan	-	-	-	577	902	1,174	1,260	1,350	1,530	1,672	1,802	1,923	1,738
Madaba	-	-	-	778	1,234	1,750	2,070	2,077	2,440	2,693	3,309	3,219	3,609
Kufanja	-	-	-	544	516	888	790	690	730	1,517	1,649	2,240	1,734
Wadi Es Sir	-	-	-	-	-	-	-	-	-	-	856	819	914
Fuheis	-	-	-	-	-	-	-	-	-	-	410	847	1,019
Wadi Arab	-	-	-	-	-	-	-	-	-	-	-	-	5,993
Total (m ³ /day)	71,801	95,450	109,328	120,340	125,023	157,849	156,183	162,452	180,411	189,448	202,043	216,411	217,80
Total (MCM/yr)	26.2	34.8	39.9	43.9	45.6	57.6	57.0	59.3	65.9	69.1	73.7	79.0	79.5

Table 11: Wastewater Treatment Plants in Jordan in October 1999^[20]

WWTP	Design Flow	Actual Inf m ³ /day	Design BOD mg/l	Actual Inf BOD mg/l	Eff BOD mg/l	Actual Inf TSS mg/l	Eff TSS mg/l	Irrigation M ³ /day	Type of Process
As-Samra	68,000	162,196	525	730	106	746	154	10,000	WSP
Aqaba	9,000	9,313	390	239	51	725	896	3,500	WSP
Mafrq	1,800	1,291	865	510	134	166	72	1,612	WSP
Madaba	2,000	3,929	850	-	-	-	-	3,368	WSP
Maan	1,590	1,700	970	-	-	-	-	146	WSP
Ramtha	1,920	1,889	860	800	227	2,363	207	1,607	WSP
Abu Nseir	4,000	1,275	680	609	22	612	26	-	RBC AS
Salt	7,700	3,666	1,090	962	15	819	18	-	AS
Baq'a	6,000	10,488	900	2,000	70	967	64	-	BF MP
Jarash	3,500	1,358	1,155	1,023	28	866	62	-	AS
Irbid	11,023	3,023	800	1,003	38	1,268	66	-	BF AS
Karak	786	1,019	1,080	828	62	662	103	-	BF MP
Tafila	1,600	804	1,050	990	29	536	24	-	BF MP
Kufanja	1,918	1,545	850	1,331	49	1,048	54	250	BF MP
Wadi Es Sir	4,000	981	780	737	50	717	94	-	AS
Fuheis	2,400	1,073	995	708	15	612	24	-	AS

AS: Activated Sludge
BF: Biological Trickling Filter
MP: Maturation Ponds
WSP: Waste Stabilization Ponds
RBC: Rotating Biological Contractor

2.1.5. Regional Water

The surface waters that Jordan shares with its neighbors include the Yarmouk River and the Jordan River. One of the main reasons that Jordan has been chronically unable to receive its full – rights share of the surface water from the Yarmouk River is the lack of adequate storage and distribution systems. Of the approximately 260 MCM/year of Yarmouk River waters flowing at Adasiya, Jordan only had been able to divert approximately 124 MCM/year. Jordan constructed Karameh dam (capacity 55 MCM) to increase the amount of water it receives from the Yarmouk River.

Under the provision of Jordan – Israel Peace Treaty, Jordan will receive 10 MCM/year from desalination of saline springs (provided from Lake Tiberias until the desalination works are complete), 50 MCM/year of water from Israel.

To date there has been a net increase of approximately 115 MCM of surface water obtained from the Yarmouk and Jordan Rivers. Through other development projects such as Addasyia diversion dam and two low storage dams on the Jordan River, Jordan plans to capture all surface waters from the Yarmouk and Jordan Rivers to which it is entitled.

The main shared groundwater non-renewable resource is the Disi Aquifer. The aquifer extends through to Saudi Arabia, which shares in the exploitation of this groundwater resource. Therefore, any planned changes in abstractions from the Jordanian side should take into consideration planned abstractions from the Saudi Arabian side.

2.1.6. Desalination

Numerous proposals are made for the construction of desalination plants to treat either the brackish waters of Wadi Araba or water from the Gulf of Aqaba. Furthermore, studies are currently being conducted for the construction of the Red Sea – Dead Sea Canal and the feasibility of generating energy for the operation of the desalination plants. The desalination plants will supply water for municipal and industrial uses in Aqaba and possibly Amman. The timeframe for the implementation of these plans has not been defined yet. ARA is in the process of preparing tender documents for a desalination plant in Aqaba. The Ministry of Water and Irrigation is studying brackish water desalination from Hisban wells to supply Amman with 30 MCM/year. The project is likely to start in the year 2002. Information on future water supply projects is provided in Section 2.5.

2.2. Renewable vs. Non Renewable Water Resources

Jordan's renewable resources are comprised of 743 MCM/year of surface resources (only 505 MCM/year of the 743 MCM/year are considered usable), and 275 MCM/year of renewable groundwater, reaching 1,018 MCM/year of total renewable resources (Table 12).^[1]

Table 12: Renewable Water Resources in Jordan

Source	MCM / Average Year	Share
Surface water of which:	743	73%
Jordan and Yarmouk Rivers	310	30%
Other rivers and wadis	433	43%
Renewable Groundwater	275	27%
Total	1,018	100%
Less unused Yarmouk water	-160	15%
Less remote surface water	-120	12%
Plus reused wastewater	+55	5%
Total Currently Usable	793	78%

The non-renewable resources of Jordan are comprised of the Disi Aquifer in the south of Jordan and the Jafr Basin near Shidiyya. These resources have been deposited in much earlier times and their volume depends on the thickness and storage capacity of the ground layer in which they are found, and on the extension of that layer.

Recent studies on the Disi aquifer concluded that a possible yield of 150 MCM/year over 50 years could be abstracted with an acceptable total drawdown of less than 250m. Water quality of the Disi aquifer is excellent for drinking purposes, being less than 300mg/l of TDS. However the Ministry of Water and Irrigation is considering to supply Amman with 80 – 100 MCM/year from Disi aquifer for drinking purposes. The Jafr basin at Shidiya will supply an annual yield of 18 MCM over 40 years.^[2]

2.3. Supplies from Different Resources

In 1990 supplies from various sources reached 856 MCM of which approximately 38% were supplied from surface water sources, 4% from treated wastewater, 51% from groundwater and 7% from fossil water. The total overdraft from groundwater reached approximately 216 MCM. In 1997, groundwater supplied 47% of total water supply, fossil water 8%, rivers 38% and wastewater 7%. Water was distributed among user sectors as follows: municipal uses consumed 21% of the total water supplied (179 MCM), industrial uses consumed 5% of the total water supply, agricultural and livestock sectors consumed approximately 74% of the total water supply. Table 13 provides an overview of type of use and water sources in Jordan.

By 1997 the distribution of water supplies among sectors was as follows: the municipal sector's supply grew to 26.9%, while the industrial sector's supply decreased to 4.3%, and the agricultural and livestock supply decreased to 68.9%.

In 1997, statistics showed that the total surface water used reached 328 MCM of which 17.7% were used for municipal demands, 80.5% for irrigation purposes, and approximately 1.5% each for livestock and industrial demands. The fossil and renewable groundwater consumption in 1997 constituted approximately 486 MCM of which the irrigation sector consumed approximately 54%, followed by the municipal sector with approximately 36.5%, industrial sector consumed 7.3%, followed by livestock with approximately 1.5%. The non-renewable groundwater resources constituted approximated 73 MCM. The major consumer of non-renewable groundwater resources proved to be the agricultural sector with almost 81% consumption of the total non-renewable groundwater resources. The agricultural sector was followed by the municipal sector with 12.2% consumption of the total non-renewable groundwater resources, followed by the Industrial sector (5.2%), and finally livestock (1.5%). The total consumed treated wastewater reached approximately 61 MCM and was consumed solely by the agricultural sector for the purposes of irrigation.

Furthermore, the 1997 statistics showed the following inter-sector distribution of water resources. Within the municipal sector 24.6% was supplied from surface water resources, and 75.4% from groundwater resources (3.8% from non-renewable groundwater resources). The supplies distribution within the industrial sector was composed of 5.1% supplied from surface water resources, while 94.9% was supplied from groundwater resources (non-renewable groundwater resources constituted

10.2%). These figures emphasize the high dependency of industrial installations on groundwater supplies. The agricultural sector's water consisted of the following sources: 44.7% was surface water, 45% groundwater (divided into 35% from renewable resources and 10% from non-renewable resources), and 10% treated wastewater. Agricultural sector's supply of water also depended on treated wastewater since 10.3% of the total water consumed for agricultural purposes was treated wastewater. Within the livestock sector 64% of total water was supplied from groundwater resources (10% of total water consumed was supplied from non-renewable groundwater resources), compared to 36% supplied from surface water resources.

Table 13: Water Sources and Water Uses in 1997

Source	Uses in MCM								Total Uses
	Municipal	%	Industrial	%	Irrigation	%	Livestock	%	
Surface Water	58.071	17.7	1.893	0.6	264.486	80.5	4.000	1.2	328.450
Jordan Rift Valley	38.441	16.4	1.893	0.8	194.486	82.8	0.000	0.0	234.820
Springs	19.630	39.6	0.000	0.0	30.000	60.4	0.000	0.0	49.630
Base & Flow	0.000	0.0	0.000	0.0	40.000	90.9	4.000	9.1	44.000
Groundwater	177.557	36.5	35.343	7.3	266.189	54.7	7.118	1.5	486.207
Renewable	168.679	40.8	31.552	7.6	207.119	50.1	6.001	1.5	413.351
Non-Renewable	8.878	12.2	3.791	5.2	59.070	81.1	1.117	1.5	72.856
Treated Wastewater	0.000	0.0	0.000	0.0	61.000	100	0.000	0.0	61.000
Registered	0.000	0.0	0.000	0.0	57.300	100	0.000	0.0	57.300
Not Registered	0.000	0.0	0.000	0.0	3.700	100	0.000	0.0	3.700
Total	235.628	26.9	37.236	4.3	591.675	67.6	11.118	1.3	875.657

2.4. Distribution of Resources & Proximity to Municipal Demand Centers

Not all surface resources are fully used, even those located near demand areas because of considerable variation in their availability throughout the year and the lack of storage capacities e.g. Wadi Mujib and other wadis in the Dead Sea basin. The groundwater resources on the other hand are heavily overused resulting in a depletion of groundwater stocks.

In addition to the operating industrial estates located in Sahab, Irbid, and Aqaba, the main demand centers include the major municipal centers of Amman, Zarqa, Irbid, Karak, Madaba, and Aqaba. Population growth followed by increase in municipal water demand make it necessary to supplement local water resources with water from remote sources conveyed via pipelines.

Several pipelines were constructed in the early and mid eighties to supply the Amman – Zarqa municipalities with fresh water resources. One of them is the Deir Alla – Amman pipeline that is considered so far to be the largest and the most expensive pipeline project in Jordan. The pipeline conveys water over an elevation difference of more than 1000 m from the Jordan Valley to Amman. The other pipeline is the Azraq – Zarqa pipeline which is the longest so far, since it reaches approximately 100 km in length.

Nevertheless, with the continuing increase in demands for fresh water new pipelines may be constructed to further supply Amman and other major municipalities such as Zarqa, Irbid, and Aqaba with fresh water resources. The following three pipelines illustrate the extensive lineage required for M&I water supply for the Amman – Zarqa municipalities:

- The first (northern Azraq pipeline) runs from the Azraq oasis in the east along the Baghdad Road to Mafraq and then to Irbid. Deep wells along the road supplement the water pumped from Azraq to Irbid. The town of Mafraq relies largely on nearby wells for its own water supply and does not therefore depend on the pipeline.
- The second runs from Azraq to Amman – Zarqa, crossing the southern part of the basin.
- The third connects the first two pipelines in a north – south direction, running from the Zatari well-field east of Mafraq on the Northern Azraq Pipeline via Dhuleil to Khaw east of Zarqa where it joins the southern Azraq pipeline. Until 1986 about four MCM/year was pumped from the Dhuleil well-field to Irbid. Later, the water was supplied to Amman- Zarqa. The pipeline's capacity of 30 MCM/year is apparently underused.

2.5. Future Projects

The main future project for the supply of water to Amman municipality would be the construction of the Disi – Amman pipeline. The pipeline which will stretch in length to more than 310 km will convey approximately 125 MCM/year over 50 years with a total acceptable drawdown of less than 250 m.

Other planned projects include the construction of a Northern Pipeline to convey water from the planned Unity Dam on the Yarmouk River to Amman. The construction design so far plans for water conveyance from the Dam to Jordan Valley and then via the existing Deir Alla – Amman conveyance system to Amman. The existing conveyance system's capacity will have to be expanded to accommodate the additional volume of water.

For Irbid municipality, a pipeline is designed to be constructed from the Mukheiba well field in the Jordanian Himma to Zabda Reservoir. The pipeline is expected to supply initially the town of Irbid and villages located in the northern Irbid Governorate. It is estimated that the pipeline's length would be approximately 32 km and its carrying capacity approximately 20 MCM/year. The last two pipeline projects became possible due to the Peace Treaty activities between Jordan and Israel.

Aqaba town that is currently supplied with water from the Wadi Yutum and Disi Aquifers is expected to require additional sources of fresh water, especially that the Disi is reserved for the Amman municipality's use. Some of the planned sources for the supply of water to meet the growing demands of Aqaba town include desalination of sea water. One of the more ambitious projects is the construction of the Red – Dead Sea Canal put forward by the Trilateral Economic Committee to support the integrated development in the Jordan Valley. Some of the benefits of the planned canal include the detention of the fast fall in the Dead Sea level, and generate energy

that would be used to operate desalination plants on the shores of the Gulf of Aqaba. The planned Canal may eventually provide water to support economic development in Wadi Araba. The project is expected to yield approximately 850 MCM/year of water of which two thirds will benefit the Jordanian side. ^[1]

As for costs, the expected capital costs are high, reaching approximately JD 207 million for the Northern pipeline, JD 437 million for the Disi – Amman pipeline, 27million for the Mukheiba-Irbid pipeline, and 11 million for the Aqaba seawater desalination plant. These estimated capital costs are likely to increase as time passes. The costs of the construction of the Red- Dead Seas canal is estimated at approximately JD 3,540 million (US \$ 4,991 million) at 1996 price levels. Of these approximately JD 750 million (US\$ 1,057 million) are construction costs for the desalination plant within the Red – Dead Sea Canal project.

The expected costs per cubic meter for some of the planned projects are available and range according to 1992 prices from approximately 1,100 Fils/m³ for the Disi – Amman pipeline, to 717 Fils/m³ for the Northern Pipeline, and up to approximately 1,500 Fils/m³ for the seawater desalination. However, based on newer data derived from projects recently completed on desalination of sea water in Aqaba, desalination systems using molecular membrane filtration (Reverse Osmosis) can produce potable water for a total cost of approximately 470 Fils/m³ including capital and operating costs. Operating costs alone constitute 250 Fils/m³. WAJ could operate a reverse osmosis water treatment facility and recover the cost of operation with revenues based on the water rate charges to industry of one JD/m³ and something less for domestic customers. Table 14 provides a summary of additional supply of water to Amman costs.

Table 14: Summary of the Cost of Supplying Additional Water to Amman

Project	Cost in Fils/m ³ Estimated at 1992 prices	MCM / Year	Investment in JD
Northern Pipeline	717	55	207 Million
Disi – Amman Pipeline	1,100	75 for 50 years	437 Million
Seawater Desalination	Approximately 1,500	Practically unlimited	Not available

Chapter 3: Water Demands

Water demand projections assume a population growth ranging between 3.6% per year to 2.7% per year by year 2015, an increase in population numbers to reach 9.3 million by year 2020, a modest increase in per capita water use to 155 l/c/d, and a reduction in unaccounted for water (UFW) from about 50% to 15% by year 2020.

Based on these assumptions and projections in municipal, agricultural, and industrial sectors, the total demand for water is expected to increase by 1.64% per year from 1104 MCM in 1995 to 1658 MCM in 2029. At the same time, the total supply of water is expected to increase by an annual average of 1.4% from 882 MCM to 1250 MCM respectively. This indicates that the total deficit of water will increase by 2.5% per year from 222 MCM in 1995 to 408 MCM in year 2020. Figure 1 presents the annual water demand budget for the agricultural, municipal, and industrial sectors.

Regarding the structure of water supply, it is expected that the ratio of municipal water to the total water supply would decrease from 36.8% in 1995 to 27.6% in 2020, the ratio of supply of industrial water from 10.2% to 3.9% while the supply of agricultural water would increase from 53% to 68.6% respectively. At the same time, the structure of the water demand is expected to dramatically change: while the ratio of municipal water demand is expected to decrease from 37.2% to 24.9% and the industrial water demand from 8.6% to 3.4%, the agricultural water demand is expected to increase from 54.3% to 71.6% respectively.

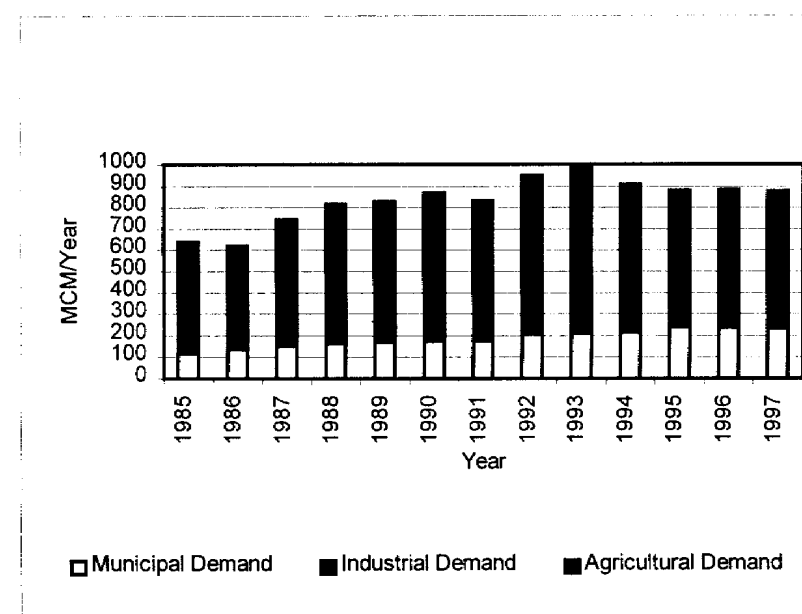


Figure 1: Jordan's Annual Water Demand Budget (1985 – 1997).

However, table 15 details Jordan's annual water demand budget for the industrial, municipal, and agricultural sectors.

Table 15: Jordan's Annual Water Budget Between 1985 – 1997

Year	Municipal		Industrial		Irrigation		Livestock		Total (MCM)
	MCM	%	MCM	%	MCM	%	MCM	%	
1985	116.00	18.2	22.00	3.4	496.85	77.8	4.00	0.6	638.85
1986	134.70	21.8	23.00	3.7	456.24	73.7	5.00	0.8	618.94
1987	150.40	20.2	23.50	3.2	565.46	76.0	5.00	0.7	744.36
1988	164.70	20.2	39.22	4.8	607.91	74.4	4.77	0.6	816.60
1989	169.77	20.4	36.30	4.4	618.35	74.5	5.92	0.7	830.34
1990	175.57	20.2	36.64	4.2	652.03	75.0	5.26	0.6	869.49
1991	173.23	20.8	41.83	5.0	613.19	73.6	4.82	0.6	833.05
1992	206.64	21.7	34.78	3.7	700.47	73.7	8.84	0.9	950.73
1993	213.54	21.7	33.25	3.4	726.44	73.9	10.35	1.1	983.58
1994	215.82	23.7	24.45	2.7	655.25	72.1	13.32	1.5	908.84
1995	239.85	27.3	32.57	3.7	596.33	67.9	9.46	1.1	878.21
1996	236.36	26.8	35.76	4.1	597.87	67.8	11.79	1.3	881.77
1997	235.63	26.9	37.24	4.3	591.68	67.6	11.11	1.3	875.66

As a result of expected development of supply and demand the structure of deficit will be changed as follows:

- While 38.2% of the deficit in 1995 was caused by the municipalities, 3.7% by the industry and 58.1% by agriculture, the ratios of the municipal and industrial water supply will decrease to 14.4% and 1.8% respectively in 2020. However, the ratio of the agricultural water deficit will increase to 83.8% of total water deficit. Figure 2 provides water demand-supply projections for the above mentioned sectors, where deficit magnitude is indicated by the distance between the supply and demand lines (the larger the distance, the higher the deficit between the projected demand and the supply).

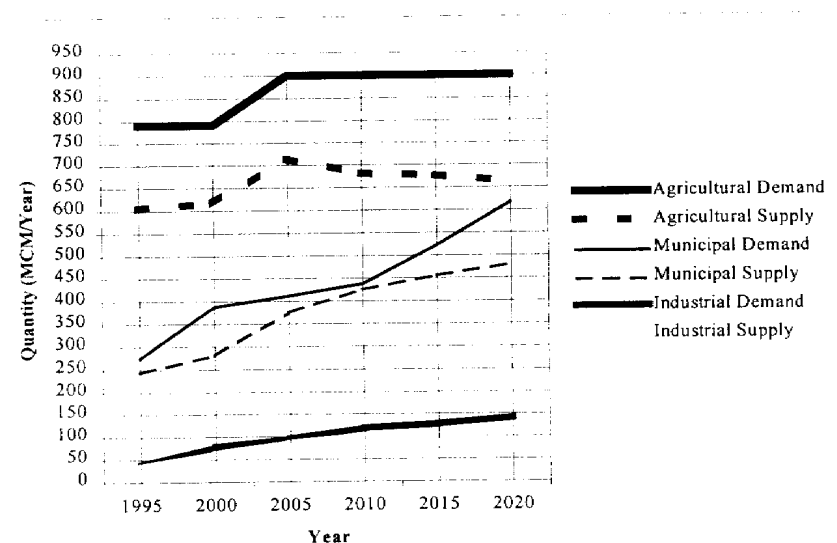


Figure 2: Water Demand – Supply Projections by User Sectors in Jordan for Years: 2000 – 2020

- In order to satisfy the demand for water in 1995, 12.5% more of municipal water was needed, 1.2% of industrial water and 19% of agricultural water. In 2020, it is expected that the supply situation in the municipalities and industries will be improved while the situation in the agriculture will be worse: an additional 3.6% of water supply in municipalities, 0.5% in industries, and 21.1% additional agricultural water will be required to cover the deficit. ^[4]

Figure 3 presents the total demand - supply projections until year 2020.

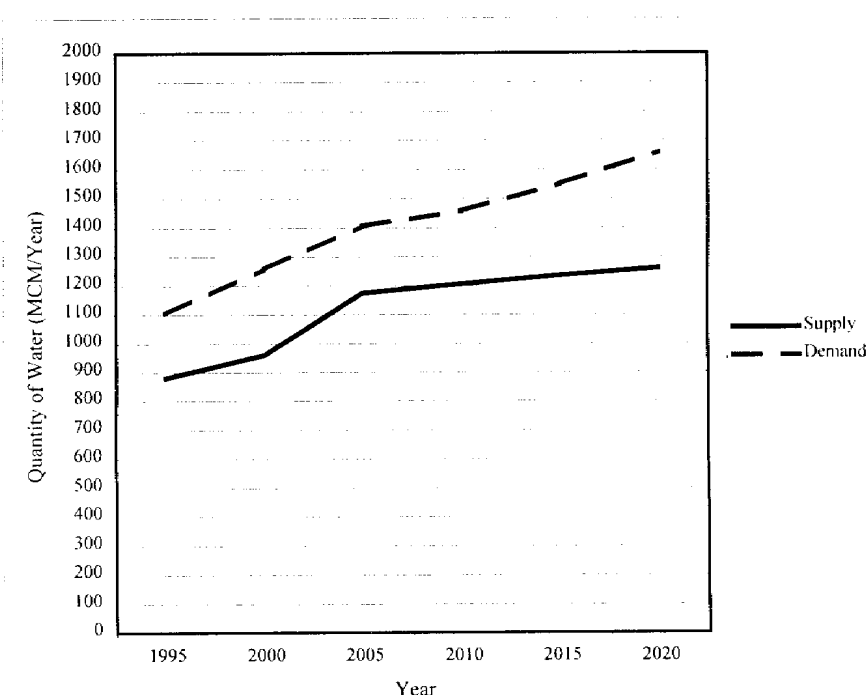


Figure 3: Total Water Demand – Supply Projections for Jordan for Years 2000 – 2020.

3.1. Municipal Water Demand Projections

Municipal water is used for domestic purposes in addition to commercial and light industries. Jordan's population is expected to grow from 4.4 million in 1996 to reach 5.1 million by year 2000, 7.0 million by year 2010 and 9.3 million by year 2020. Since municipal demand depends on population growth, in addition to growth in per capita water demand, and the percentage of projected losses from municipal water system. Therefore, assuming a modest increase in per capita water use to 155 l/c/d, then municipal water demand is expected to grow from 275 MCM for 1995, to 388 MCM in 2000, 438 MCM in 2010, and 616 MCM in 2020. These projections are based on the assumption that unaccounted for water (UFW) will be reduced from about 50% to 15% by year 2020. ^[3] Figure 4 displays the municipal water demand-supply projections, where the distance between the two lines is an indicator of the demand-supply deficit magnitude.

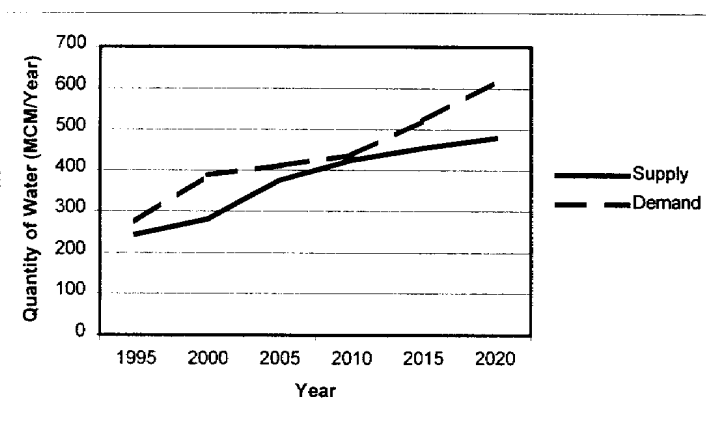


Figure 4: Municipal Water Demand – Supply Projections in Jordan for Years: 2000 – 2020

3.2. Industrial Demand Projections

Industries that are small in size are supplied from the municipal water supply system and receive needed water from the municipalities. Major industries that are usually located outside the water service area install their own private wells. Recently the government has imposed a resource tax that is applied to these privately owned wells.

Industrial water supplies reached 22 MCM in 1985 and increased to approximately 38 MCM in 1996. Current projections based on an increasing industrial contribution to overall economic development have industrial water uses increasing from 38 MCM in 1995 to 119 MCM in 2010 and 142 MCM in 2020. Figure 5 represents the demand-supply projections curve for industrial water demand, where the distance between the supply and the demand curves is an indicator of the demand-supply deficit magnitude.

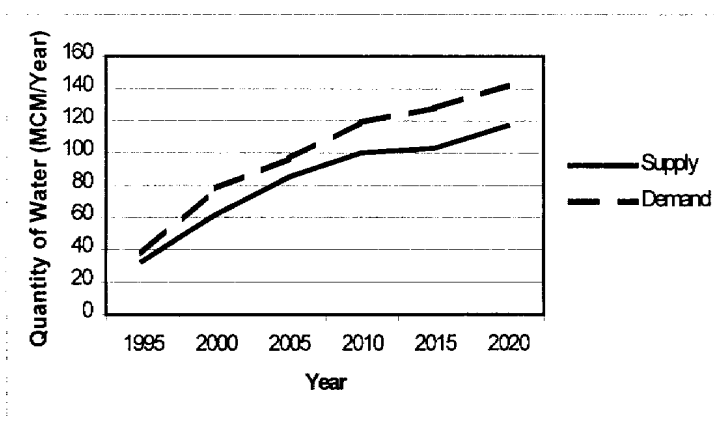


Figure 5: Industrial Water Demand – Supply Projections in Jordan for Years: 2000 – 2020

Industrial water consisted mostly of groundwater 91.7% (28.7 MCM) in 1993, which increased to 92.8% (33.2 MCM) in 1996. The surface water used in industrial sector

reached 2.6 MCM or 8.3% of total industrial water in 1993 and 2.6 MCM or 9.3% in 1996. The average surface water used in industries reached 2.7 MCM or 8.7% of average industrial water consumption in Jordan.

3.3. Agricultural Water Demand Projections

The area of irrigated agriculture increased between 1975 and 1996 from 28,200 hectares to approximately 84,600 hectares. The distribution of irrigated lands within various geographic regions of Jordan changed as well: in 1975, 89% of irrigated lands were in the Jordan Valley while only 11% were in the Highlands and Badia region. In 1996 the distribution was as follows: 65.3% became in the Highlands and Badia Region (55,300 hectares) and 34.7% in the Jordan Valley (29,300 hectares). This increase in the area of irrigated lands was followed by an increase in water consumption from 350 MCM/year to reach approximately 600 MCM/year. In addition to water used for irrigation, surface and groundwater resources are utilized for livestock and poultry rearing. Nevertheless, the share of agriculture in the total supply of water decreased from 90% to reach 65 – 70 percent within the last 30 years.

The potential irrigated lands in the Jordan Valley are approximately 36,000 hectares, and in the southern Ghors and Wadi Araba irrigated lands reach approximately 10,000 hectares. Cropped irrigated areas in the uplands amount to 37,000 hectares. Although the potential irrigated lands in the highlands are great, a very slight increase in irrigated agriculture is expected due to the unavailability of water resources. Projected irrigation water demand in Jordan is expected to grow from approximately 600 MCM/year in 1995 to a stable 900 MCM by the year 2005. The increase is related to the completion of on-going projects and utilizing treated wastewater that otherwise would be lost. Figure 6 presents the projected demand-supply curve for the agricultural sector, where the distance between the demand and the supply curves indicates the deficit magnitude between the supply and demand water requirements.

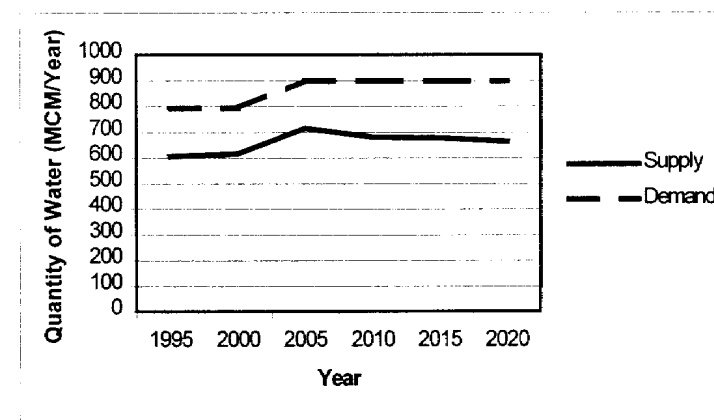


Figure 6: Agricultural Water Demand – Supply Projections in Jordan for Years: 2000 – 2020

A total of 833 MCM of water was consumed in Jordan in 1991, 613 MCM by agriculture (73%), 180 MCM for municipal uses (22%) and 42 MCM by industry

(5%). Jordan's water use thus exceeds currently available renewable water resources, estimated at 793 MCM/year.

Municipal and industrial water use will increase probably at faster rate than the population growth because living standards will rise and industry and services will need to grow more quickly than the overall economy to absorb those who do not find employment in agriculture. Table 16 provides a summary of demand - supply projections for the agricultural, municipal and industrial sectors.

Table 16: Summary of Municipal, Industrial, and Agricultural Water Supply and Demand Projections in MCM for Years 2000 - 2020

Year	Municipal		Agriculture		Industry		Total	
	Demand	Supply	Demand	Supply	Demand	Supply	Demand	Supply
1995	275	243	791	605	38	33	1,104	881
2000	388	281	791	617	78	62	1,257	960
2005	411	375	900	714	96	85	1,407	1,174
2010	438	425	900	681	119	100	1,457	1,206
2015	522	455	900	677	128	103	1,550	1,235
2020	616	480	900	663	142	117	1,658	1,260

* All demand and supply figures are in MCM

Chapter 4: Utilities Costs and Revenues

The cost of water is relatively expensive in Jordan due to its limited availability. Water for municipal and industrial (M&I) uses is either abstracted from deep bore holes in the highlands or pumped from the Jordan Valley. The estimated cost of M&I supplies delivered to the consumer is 780 fils/m³ and for irrigation water in the Jordan Valley 230 fils/m³. Groundwater used by farmers in the highlands is not publicly funded. Revenues are less than half the costs incurred. Irrigation revenues are also well below the cost of providing the service.

The Government provides an annual budget averaging JD 13.6 million per year for JVA, but recovers only slightly above of JD 0.75 million (5.5% of JVA's annual budget). WAJ's subsidy is even greater. Deficits are accumulating at the rate of JD 30-40 million per year (reaching JD 50 million in 1999). There is no return on capital, and both agencies are dependent on Government to meet their debt servicing obligations. The difference between cost and the average tariff charged for each service represents a massive public subsidy in the order of 50 million per year without taking into consideration the invested capital costs. Therefore, the Government's subsidy to water does not encourage conservation while at the same time deprives the Government of funds that could be used for other programs. ^[5]

4.1. O&M and Capital Costs by Sectors

4.1.1. Municipal and Industrial

Between the years 1990 and 1997 the O&M costs of supplied municipal water and sewage services increased by an annual average of 12.9%, i.e. from JD 19.7 million in 1990 to JD 46 million in 1997 (Table 17). Furthermore, total costs of produced municipal water also increased by an annual average of 16.7% from JD 45.9 million in 1990 to JD 135.6 million in 1997. The cost of 1 cubic meter of municipal sold water increased from 616 fils/m³ in 1990 to 1247 fils/m³ in 1997 (10.61% increase), while the cost of 1 m³ of municipal produced water increased from 258 fils/m³ in 1990 to 565 fils/m³ in 1997 (11.85% increase).

In the period 1973-1990 capital investments in the municipal water and sewerage sector amounted to JD 273 million, with JD 170 million invested in water supply and JD 103 million in sewerage services. In the 1993-1997 investments in the water and wastewater sector reached JD 411 million out of which JD 245 million were for water supply and JD 166 million for sewerage services. The Water Sector Investment program estimated that costs would reach JD 4,150 million out of which JD 2,722 million for water supply and JD 1,428 million for sewerage services. ^[4]

Table 17: Revenues and Expenses of Municipal Water (000JD)

Item	1990	1997	Average
Revenues:			
Water & Sewage	21,199	48,198	35,225
Total Income	45,990	138,411	96,265
Costs:			
O&M	19,671	45,993	34,896
Total Costs	45,866	135,615	98,001
Surplus / Deficit	124	2,796	-13,893
Revenue of Sold Water (JD/m³):			
Water & Sewage Revenue	0.285	0.443	0.377
All Income	0.617	1.273	1.032
Costs of Produced Water (JD/m³):			
O&M Costs	0.111	0.192	0.161
Total Costs	0.258	0.565	0.453
Costs of Sold Water (JD/m³):			
O&M Costs	0.264	0.423	0.374
Total Costs	0.616	1.247	1.050

4.1.2. Agriculture

The total costs of consumed irrigation water consists of the sum of operation and maintenance (O&M) and capital costs. O&M costs of supplied irrigation water increased from JD 3.78 million in 1990 to JD 4.8 million in 1997 (Table 18). The capital costs assigned for irrigation uses vary between JD 4.02 million in 1990 and JD 5.59 million in 1997. This indicates an average increase of the capital costs of irrigation water by 4.83% per year between years 1990 and 1997.

The total costs (capital and O&M) were JD 7.8 million in 1990 and reached 10.39 million in 1997, i.e. an average annual rate of growth of 4.19% in the period 1990-1997. Meanwhile, irrigation water revenue increased from JD 0.874 million in 1990 to reach JD 3.31 million in 1997 i.e. at an average annual increase of 20.99% per year. ^[4]

Table 18: Costs and Revenues of Irrigation Water in Jordan Valley (JD m)

Year	O & M	Capital Costs	Total Costs	Revenue	Surplus / Deficit
1990	3.78	4.02	7.80	0.87	-6.92
1991	3.91	4.12	8.03	0.68	-7.35
1992	4.68	3.71	8.39	0.68	-7.71
1993	3.02	4.09	7.11	2.35	-4.76
1994	3.35	4.47	7.82	3.20	-4.62
1995	3.81	4.50	8.31	2.73	-5.58
1996	4.01	5.72	9.73	3.02	-6.71
1997	4.80	5.59	10.39	3.32	-7.08
Total	31.36	36.22	67.58	16.85	-50.73

4.2. Revenues by Sectors

The revenues of each sector are discussed in respect to the labor force that is employed by each sector, the sectors exports and imports volume, and the contribution and importance of each sector to the GDP (Figure 7). Table 19 summarizes the results that are discussed below in more details. Table 20 provides the growth rates and contribution to national GDP of the agricultural, municipal, and industrial sectors.

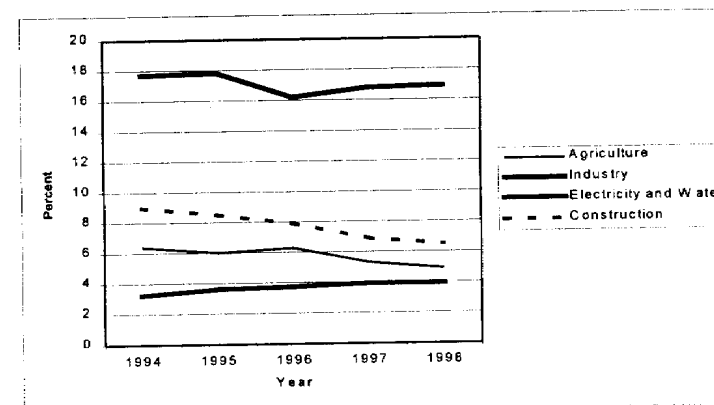


Figure 7: The Relative Importance of Economic Sectors to GDP (at Constant Factor Cost)

Table 19: Water Consumption and Contribution to GDP by Sectors

Sectors	Water (MCM)		% of Water		GDP (JD m)		% of GDP	
	1988	1996	1988	1996	1988	1996	1988	1996
Agriculture, Hunting and Forestry	608	549	74.3	66.9	134.5	232.9	6.7	5.4
Mining and Manufacturing	39	36	4.8	4.4	279.4	842.2	14.0	19.4
Service Sectors	171	236	20.9	28.7	1418.7	2833.3	71.1	65.2
Others	0.0	0.0	0.0	0.0	163.5	439.3	8.2	10.1
Total	818	821	100.0	100.0	1996.1	4347.7	100.0	100.0

Table 20: Cross Sector Comparison of the Growth Rate of Economic Sectors and the Relative Importance of Economic Sectors to GDP

Characteristic	Sector / Year	1994 (%)	1995 (%)	1996 (%)	1997 (%)	1998 (%)
Growth Rate of Economic Sectors (at Constant Factor Cost)	Agriculture, Hunting, Forestry & Fishing	-9.3	-1.4	6.4	-15	-7.5
	Manufacturing	28.6	1	-9	4.5	1.5
	Mining and Quarrying	0.4	43.3	0.9	5.4	3
	Electricity & Water	4.6	17	3.7	7.2	3
	Construction	11.7	0.8	-6.4	-11	-6
The relative importance of Economic Sectors to GDP (at Constant Factor Cost)	Agriculture, Hunting, Forestry & Fishing	6.4	6	6.3	5.3	4.9
	Industry (Manufacturing and Mining)	17.7	17.8	16.2	16.8	16.9
	Electricity & Water	3.2	3.6	3.7	3.9	3.9
	Construction	9	8.5	7.9	6.9	6.5

4.2.1. Agriculture

In 1996, the number of workers employed in the agricultural sector reached 87,400, forming 9.3% of the total Jordanian workforce. This number constitutes a decrease from the 1961 figures where agricultural sector employed 33.3% of the total Jordanian workforce (72,600 workers). At the same time the 1996 figure is an increase from year 1989 where the number of workers reached its minimum at 37,700 employees and constituted 4.8% of the total Jordanian workforce.

The agricultural sector contribution to the GDP reached JD 134.5 million in year 1988 (6.7% of the total Jordanian GDP). In 1996 it increased to JD 232.9 million but formed only 5.4% of the total Jordanian GDP. Thus, even though the numerical value of the GDP increased its importance to the overall Jordanian GDP decreased. The average contribution of this sector to the GDP reached 6.5% in the period 1988 – 1996.

In spite of the seemingly low direct contribution of the agricultural sector to the Jordanian GDP and employment levels, it is estimated that approximately 28% of the total Jordanian GDP and up to 24% of employment depend on the agricultural sector.^[13]

Jordan exported agricultural products in the value of JD 30.4 million in 1988 (9.4% of total Jordanian exports) which increased to JD 160.4 million in 1996 (15.4% of the total Jordanian exports for 1996). This indicates an average increase of the agricultural exports by 23.1% per year in the period 1988 – 1996 compared to an increase of Jordanian exports by 15.6%. The importance of the agricultural sector regarding its contribution to Jordan's total exports increased as well. Nevertheless, agricultural imports increased as well thus increasing the imports-exports gap from JD 187 million in 1988 to JD 685.9 million in 1996, i.e. by an average of 17.7% per year.

The agricultural deficit constituted 20.6% of total deficit of Jordan's balance of trade in 1988 and increased to 26.2% in 1996, and the contributions of Jordan's agricultural production to the demand for agricultural products decreased from 5.8% to 4.3% respectively.

Jordan succeeded in becoming self-sufficient in vegetables and some kinds of fruit, therefore, most of Jordan's agricultural exports are fruits and vegetables. Nevertheless, Jordan imports live animals, meat, dairy, eggs, wheat, tea, coffee, cocoa, fodder and other goods where there is considerable deficit in local supply. As a result of increasing population and improved standard of living food import increased and it is expected that the import-export gap will further increase.

4.2.2. Mining and Quarrying

In 1996 the mining and quarrying sector employed 22,900 workers which constitutes 2.4% of Jordanian work force. This constitutes a mild increase from the 1.9% of the Jordanian work force who were employed in this sector in 1961. The number of labor force working in the mining sector increased from 4,200 in 1961 to approximately 18,000 between the years 1988 – 1995 before settling at the 1996 levels.

The GDP of the mining and quarrying sector, which is one of the fastest growing in the Jordanian economy, increased from JD 82.4 million in 1988 (4.1% of total GDP) to JD 153.6 million in 1996 (3.5% of total GDP). Thus the sector's importance to the GDP of Jordan decreased. The annual increase of the GDP of the mining and quarrying sector varied between a minimum of 8.2% in 1993 and a maximum of 18.2% in 1992 with an average increase of 8.1% per annum. The average contribution of this sector to the GDP of Jordan reached 4.2% in the period 1988 – 1996.

The mining and quarrying sector in Jordan exports phosphate, potash, and fertilizers and imports mineral fuels, lubricants and related materials and crude oil. The sector contributed 45.2% of total exports in 1988 (JD 147 million) which decreased to 27.4% in 1996 (JD 285 million). The sectors contribution to total Jordanian imports decreased as well from 14.5% in 1988 to 9.4% in 1996. The sector suffers from a continuous deficit that increased from JD 10.9 million in 1988 to JD 87.1 million in 1996, i.e. by an annual average of 29.59%. This deficit constituted 1.6% of total deficit of Jordan's balance of trade in 1988 and increased to 4.3% in 1996.

4.2.3. Manufacturing

The number of labor force in the manufacturing sector reached 94,900 in 1996 which is a decrease from the record high of 111,100 persons employed in the previous year. The importance of manufacturing sector in Jordan regarding the employment increased from 8.3% of the working force in Jordan in 1961 to 12.6% in 1995, followed by a decrease to 10.1% in 1996.

The GDP of the manufacturing sector was JD 197 million in 1988 which constituted 9.9% of the total GDP. In 1996, the GDP of the manufacturing sector increased to JD 688.6 million in 1996 and its contribution to the total GDP increased to 15.6%. The average contribution of the manufacturing sector to the total GDP between the 1988 – 1996 period was 14.1%.

The manufacturing sector in Jordan formed 45.2% of total Jordanian exports in 1988 (JD 147.6 million), which increased to 57.1% in 1996 (JD 593.9 million). The sectors' imports of crude materials and manufactured articles were 14.5% (JD 684.9 million) in 1988 and increased to 19.5% (JD 1985.1 million) in 1996. Thus the deficit within the manufacturing sector has been increasing from JD 537.7 million in 1988 to JD 1391.2 million in 1996 or by an annual average of 12.63%. Jordan's contribution of manufacturing products to the demand increased from 6.5% to 9.3% respectively.

4.2.4. Electricity and Water

The number of workers employed by the water and electricity sectors increased from 4,200 in 1961 (0.41% of total workforce) to reach 16,000 workers employed by 1996 (1.7% of total workforce). In average, water and electricity sectors employed 7,220 workers or 1.2% of the average employment in Jordan in the period 1961-1996.

In 1988 the GDP that the electricity and water sector contributed to the Jordanian GDP reached JD 50.6 million (2.5% of the total GDP). By 1996 the sector's contribution to the Jordanian GDP decreased to 2.3% (JD 98.2 million). Thus the average contribution of this sector to the GDP of Jordan reached 2.3% during the

1988 – 1996 period. The annual increase of the GDP of the electricity and water sector varied between a minimum of 2.3% in 1990 and a maximum of 18.2% in 1993 with an average increase of 8.64% per annum.

4.2.5. Construction

The number of workers employed by the construction sector between the years 1961 and 1996 increased from 22,300 to 91,200 workers. Nevertheless, its importance within the Jordanian labor market decreased from 10.4% in 1961 to 9.7% in 1996. In average the construction sector employed 58,300 thousand or 9.7% of the average employment in Jordan between the years 1961-1996.

In 1988 the construction sector formed 5.7% of the total Jordanian GDP with a JD 112.9 million. Since then the portion of the GDP that this sector has contributed to the total GDP has been increasing to reach JD 341.1 million, which amounts to 7.8% of the Jordanian GDP. Thus the average contribution of construction sector to the GDP formed 7% during the 1988 – 1996 period. The annual change of the GDP of the construction sector varied between a decrease of 10.1% in 1989 and a maximum increase of 71.3% in 1992 with an average increase of 14.82% per annum.

4.2.6. Service Sector

The number of employed workers in the service sector in Jordan increased from 99,300 workers in 1961 forming 45.6% of the Jordanian workforce to 625,000 workers in 1996, thus forming 66.5% of the total Jordanian workforce. The maximum contribution to the Jordanian workforce by the services sector was attained in 1993 with a 75.3% of Jordanian workers employed by the services sector. Since 1961 an annual average of 418,400 were working in the service sectors or 69.5% of average employment in Jordan in this period. This reflects the dominance of services in the Jordanian economy.

The GDP of the service sectors increased from JD 1419 million in 1988 to JD 2833 million in 1996. The annual increase of the GDP of these sectors varied between a minimum of 4.2% in 1990 and a maximum of 14.7% in 1992 with an average increase of 9% per annum. At the same time, the importance of the service sectors in the GDP of Jordan decreased: it contributed 71.1% to the GDP in 1988 and 65.2% in 1996. The average contribution of this sector to the GDP of Jordan reached 65.9% in the period 1988 – 1996.

4.3. Summary

Table 21 provides a summary of water consumption by sector and each sector's contribution to the total Jordanian GDP, employment and exports for 1996. The agricultural sector consumed more than half of all the sectors' water allocations, though contributed only 5.4% of the GDP, 9.3% of employment, and 15.4% of exports. The second highest water consumer in 1996 was the services sector with a water consumption share of 28.7%, though it was also the highest contributor to the Jordanian total GDP with 65.2% share of the total GDP and 66.5% share in total employment. The mining, quarrying and manufacturing sectors consume only 4.4 %

of total allocated water, but contribute 19.1% of the total Jordanian GDP, 12.5% of employment, and 84.5% of exports.

Table 21: Summary of Revenues By Sector as Percentage Out of Total Contribution of All Sectors, and Water Consumption Per Sector for 1996

Sector	Water Consumption	GDP	Employment	Exports
Agricultural	66.9 %	5.4 %	9.3 %	15.4 %
Manufacturing	4.4 %	15.6 %	10.1 %	57.1 %
Mining and Quarrying		3.5 %	2.4 %	27.4 %
Electricity and Water	Minimal	2.3 %	1.7 %	-
Construction	Minimal	7.8 %	9.7 %	-
Services	28.7 %	65.2 %	66.5 %	-
Total	100 %	99.8 %	99.7 %	99.9 %

Chapter 5: Water as a Constraint to Social and Economic Development in Jordan

The scarcity of water in Jordan forms one of the main factors that limit economic and therefore, social development in the country. The available renewable water resources are limited and are not sufficient to cover the existing water demands of various sectors.

Rapid increases in population and industrial development have placed unprecedented demands on water resources. Total demand is approaching one billion cubic meters per year, which approximates the limit of Jordan's renewable and economically developable water resources. For several years, renewable groundwater resources have been withdrawn at an unsustainable rate. The quality of surface and groundwater in some areas is deteriorating. Current water demands are not being met satisfactorily throughout the country (both spatially and temporally), and the costs of developing new water resources are rising rapidly.

Jordan's water resources must be developed based on economic feasibility, and adequate management systems must be instituted to plan and promote the optimal use of water resources. In the mid-long term, Jordan will not be able to satisfy its increasing water demands from renewable water resources. Financial constraints as well as political difficulties of managing water demands clearly indicate that future water strategies must be selected carefully. Therefore, it is imperative that optimal and sustainable patterns of water use be established to meet the requirements of a growing population as well as Jordan's economic development objectives and basic agricultural foodstuffs. No single action can remedy the country's water shortages; rather many actions are necessary to increase overall water availability.

Jordan has initiated comprehensive water strategy reforms in order to respond to the country's water crisis. Jordan's Water Strategy, adopted in 1997, attempts to address aggressively and systematically many of the problems facing the water sector. A coherent set of sector policies and strategies are being prepared; a detailed investment program has been formulated; and reforms are being implemented.

Jordan is establishing the long term planning strategies, management systems, and economic foundation required to develop and to manage Jordan's water resources. Specific reforms are being implemented to improve Jordan's water resources management systems in the following areas:

1. Water policy
2. Water demand and water supply management
3. Strategic planning and management
4. Financing, investment, and private sector participation program
5. Institutional reform
6. Regional cooperation.

The effectiveness of the policies that have been implemented so far and are still in the implementation process are yet to be time tested. The participation of an international water supply company in the management of service provision within the Ministry of Water and Irrigation has yet to prove its effectiveness. The reforms and changes should be implemented with more aggressiveness in light of the urgency and importance of the water issue in Jordan.

One of the main social and economic constraints that are facing Jordan is the availability of water in good quality and sufficient quantity. Since development in Jordan in all sectors depends on increased amounts of water needed in all sectors, whether agriculture, services, or industrial. Therefore, any planning to ameliorate or expand in any of these sectors will have to take into consideration and plan for provision of sufficient water resources to suffice the specific demands of the sectors.

Chapter 6: Water Productivity for Each Sector

This chapter compares water productivity in the industrial sector through the comparison of water productivity in the Amman Industrial Estate (AIE) in Sahab with water productivity in the agricultural sector in Jordan. A comparison will be made between the water requirements and water productivity in terms of employment, contribution to GDP, paid salaries and exports between the AIE and the averages for the agricultural sector in Jordan.

Industries in the Amman Industrial Estate are representative of industries in Jordan, except for the heavy industries such as potash and fertilizer production, which are situated in Aqaba South Industrial Zone, and petroleum refinery which is situated near Zarqa. This paper assumes that further industrial development would be shaped on the example of AIE rather than follow the example of the high water consuming heavy industries, and industries with low water consumption would be given priority in light of scarcity of water resources.

It should be noted that the following comparison does not take into consideration the social, educational, and environmental costs. Changes in water allocation between industrial and agricultural sector may affect issues such as soil erosion, desertification, air pollution, emissions of greenhouse gases, ozone, and particulates into the atmosphere, and pesticide pollution. Furthermore, there may be changes in the profile of the solid wastes that are produced and wastewater quality parameters.

Socioeconomic and demographic parameters may be changed as well with the decline in agricultural sector and expansion of the industrial sector allocation of water resources. Migration from villages towards large population centers which already occurs in Jordan, may be increased as agricultural sector is further minimized. The structure of the family may be changed as well. Agricultural families tend to stay in the extended family form, while families living off industrial employment are more prone to live the "nuclear family" style consisting of the parents and their children.

Increasing the industrial sector may affect the level of education and types of employment that are open to women, and may encourage women participation more actively in earning income, and change of lifestyle since they would be less dependent on the extend family for their survival.

The number of children may be affected as well. Agricultural families tend to bear a higher number of children than families who depend on employment within industries, since children provide free labor hands, and the number of children tends to be a guarantee of labor sufficiency and the timely reaping of crops. Within the industrial sector, this is no longer the case, and the higher number of children does not always guarantee financial stability for the family.

The following sections provide a comparison between water productivity in the Amman Industrial Estate and the agricultural sector in Jordan. All figures date to the 1996-1998 period unless otherwise stated.

6.1. Background

The AIE was established in 1981 as a step in the Government's attempts to promote the industrial sector in Jordan and encourage industrial investment. Currently, the Estate has grown to become one of the major concentration points of industries in Jordan, and a model for the establishment of similar estates both nationally and regionally.

The AIE occupies a total area of 253 hectares. It is located in proximity to the Queen Alia International Airport, and is served by the regional road networks that link the Gulf States with Syria and Iraq.

In 1998, the total leased area within the AIE approximated 295,189 m²; while the total sold land area reached 1,250,943 m². Furthermore, the total area of sold ready-made hangars reached 8,309 m² and the total area of leased buildings approximated 80,244 m².

In 1998, 363 industries operated in the Amman Industrial Estate with a total investment of JD 843 million. The engineering and mineral sector had the highest contribution of JD 198 million, and the leather industries had the minimal investment contribution of JD 2.7 million.

In 1998 the total sale of the installations of the AIE reached JD 403 million, while the exports reached 35% of the total sales i.e. JD 142 million. The main import countries of AIE manufactured products were Iraq, Lebanon, Malaysia, United Arab Emirates, Yemen, Algiers, Sudan, and Qatar. In order to further improve the marketing capacity and competitiveness of the products, approximately 41 companies have acquired the ISO certificates, and another 104 companies are en route to acquiring them.

The existence of various types of manufacturing industries in proximity to one another has led to a kind of cooperation between these industries, since many use the products of other industries in their manufacturing processes. This is encouraged by the fact that transportation and shipping costs are cut due to the proximity of distances between the factories within the AIE.

The total number of workers in 1998 was 13,641 persons that worked in AIE. These ranged between administration, technicians, marketers, and factory operators. In addition to the ones directly employed by the AIE there are many persons providing services located beside the Estate and who depend on it for their income such as numerous repair shops, eateries, markets, etc.

The total storage capacity of water available in AIE is 22,083 m³, while the water consumption in 1998 reached 3,189 m³/day, which amounts to 1.16 MCM/year. The following table provides a summary of industries located in AIE by type, number of workers, water use, and water storage capacity.

Table 22: Number of Industries Operating at Amman Industrial Estate / Sahab and Their Daily Water Consumption in 1999 ^[9, 10]

Industrial Sector	No. Of Companies	Investment (JD million)	No. Of Workers	Water Use (m ³ /day)	Water Storage Capacity (m ³)
Food	42	153.5	2,025	826	3,720
Pharmaceutical	21	57.0	994	351	363
Engineering	80	198.4	2,775	256	7,138
Plastic & Rubber	53	79.8	1,570	152	429
Chemical	53	93.6	1,334	464	3,128
Woven & Cotton	39	98.0	2,094	668	4,621
Furniture, Kitchen & Doors Manufacturing	27	22.1	744	24	168
Printing, Paper, Packaging & Wrapping	27	109.1	1,736	326	2,292
Leather	11	2.7	72	8	22
Construction	10	19.8	297	112	196
Services	-	-	-	2	6
Total	363	834	13,641	3,189	22,083

Research indicates that the water demand by the industries located in the AIE to operate in their normal mode and without interruption would reach 3,826m³/day. Nevertheless, due to interruptions in the manufacturing process the actual water requirements for the manufacturing processes by industries in the AIE are 1,500m³/day, a deficit of approximately 500m³/day is obtained by the industries from tankers. Therefore, the actual water consumption varies with the manufacturing schedules that depend among other factors on economic conditions and product demand projections. According to 1999 water consumption levels (Table 22), the total water consumption for AIE / Sahab is 1.16 MCM/year. ^[9, 10]

6.2. Comparison

In this section, water productivity of the AIE is compared to water productivity indicators of the agricultural sector in Jordan as a whole. Taking the agricultural sector as a whole facilitates the comparison and eliminates the need of drafting scenarios according to the area of the agricultural land, soil type, water quality, crop type, and irrigation technology utilized. Therefore, water productivity for the agricultural sector may be regarded as average figures of the sector in Jordan. Water productivity calculations are presented per cubic meter of water that is consumed by either the industrial sector represented by the Amman Industrial Estate (AIE), or the agricultural sector, (Table 23).

Table 23: Comparison of Parameters per Cubic Meter Between the Agricultural Sector in Jordan and the AIE / Sahab

Parameter	Agricultural Sector	AIE / Sahab
Area		
Hectares	84,600	253
Water		
(MCM/year)	600	1.16
(m ³ /day)	1,643,836	3,189
Employment		
Employees	87,400	13,641
Employees/m ³	0.00015	0.0117
Employees/MCM	146	11,700
Including Secondary Employment		
Employees/MCM	292	23,400
Exports		
Million JD/year	160.4	142
JD/m ³	0.27 JD/m ³	122 JD / m ³
Salary of Registered Insured Employees ^[13]		
JD/Worker/Month	84	94
Fils/Worker/m ³	0.002	0.98
JD/m ³	1.6	13.4
GDP		
Percent of Total Jordanian GDP	5.4%	3.67%
Million JD	232.9	158.3
JD/m ³	0.39	136.5

Water Consumption:

The agricultural sector uses 1.6 MCM/day as opposed to AIE that consumes approximately 3,189 m³/day (0.003 MCM/day), provided no interruptions in normal manufacturing process take place. These figures translate into 600 MCM/year consumed by the agricultural sector, compared to approximately 1.16 MCM/year consumed by the AIE.

Employment:

Employment –Water Ratio (EWR) is defined as the labor force per million cubic meters (1 MCM) of water used per year. Labor force is measured as the number of full time employees. Some inaccuracies in data stem from the fact that official employment statistics may underestimate unpaid family work, and especially the work done by women. At the same time, official statistics do not differentiate between workers employed in irrigated agriculture and those working in rain dependent agriculture.

The number of employees working in the agricultural sector in 1996 reached 87,400 employees both those that are insured and not insured. That is for every one cubic meter used in agriculture 0.00015 employees are employed (146 workers/MCM). At the same time for every one cubic meter consumed at the AIE 0.0117 workers are employed (11,700 workers/MCM). These figures are doubled if taking into considerations secondary job opportunities that are created as a result of these sector's operations to reach: 0.000292 workers/m³ for agricultural sector and 0.0234 workers/m³ for AIE.

Average Salaries:

Information regarding salaries was not available specifically for the AIE therefore, it was assumed that salaries paid to employees in the AIE are concurrent with average salaries paid in the industrial sector in Jordan. Therefore, comparison was made between salaries of the industrial sector and salaries of the agricultural sector as a whole. This information is derived from the 1994 Population Census and 1998 Statistical Yearbook and concerns only those workers that are registered with the National Insurance Program. The average salary of a worker in the agricultural sector approximates 84 JD/month compared to 94 JD/month/worker in the industrial sector. Water productivity calculation reveal the following: every worker in the agricultural sector is paid 0.002 Fils per every cubic meter consumed, compared to 0.98 Fils paid to every worker per one cubic meter consumed in the industrial sector. Taking the workers out of the equation by multiplying the per worker result by the total number of workers employed by each sector yield the following results: every cubic meter consumed by the agricultural sector results in 0.16 JD being paid as salaries, while one cubic meter of water consumed by the AIE results in 13.4 JDs being paid as salaries. It may be concluded that consuming one cubic meter of water by the agricultural sector employs less workers and pays less per worker than the same amount of water consumed by the AIE. Furthermore, agricultural sectors' salaries may be even lower since many of the workers taking less than the average salaries (average daily rate is 4 JD / day) may not be registered with the National Insurance Program.

Table 24: Work permits Issued to Foreign Labor by Occupation groups and Sex

Occupational Group	Male	Percent	Female	Percent	Total	Percent
Specialists and Technicians	963	2.7%	284	4.1%	1,247	2.9%
Administrative	503	1.4%	53	0.8%	556	1.3%
Clerks	39	0.1%	28	0.4%	67	0.2%
Salesmen	285	0.8%	7	0.1%	292	0.7%
Services	9,784	27.7%	6,421	91.9%	16,205	38.3%
Agriculture	11,912	33.8%	140	2.0%	12,052	28.5%
Industry, Transport, Communication & Construction	11,801	33.4%	55	0.8%	11856	28.0%
Grand Total	35,287	100.0%	6,988	100.0%	42,275	100.0%

Source: Department of Statistics

Table 25: Number of Work Permits Issued to Arab and Non-Arab Workers by Occupation Division and Nationality

Nationality Groups	Occupational Division				
	Production		Agriculture		Total for All Sectors
	No. of Workers	% of Total	No. of Workers	% of Total	
Total Arab	11,195	34.3%	10,353	31.7%	32,637
Egyptian	9,872	33.5%	10,054	34.1%	29,484
Syrian	922	70.3%	110	8.4%	1,312
Sudanese	98	24.6%	130	32.7%	398
Other Arab	303	21.0%	59	4.1%	1,443
Total Asian	563	6.4%	1,567	17.7%	8,854
Total Europeans	42	8.8%	2	0.4%	475
Other Foreigners	5	3.8%	3	2.3%	131
Total	11,805	28%	11,925	28.3%	42,097

Source: Department of Statistics

Gross Domestic Product (GDP):

The total GDP contribution of industries located in the Jordanian Industrial Estate Corporation is approximated at 4% of the total Jordanian GDP. Taking into consideration that at the time of the approximation the main contributors to the GDP were the AIE and the Hassan Industrial Estate (HIE) located in Irbid, it may be assumed that both these Estates contributed to the 4% of the Jordanian GDP. Taking into consideration that the total Gross Sales of AIE was JD 363 million while Hassan's Total Gross Sales reached JD 36 million, it could be assumed that the total contribution of AIE to the GDP compared to the HIE's contribution is in the ratio of 363:36 i.e. approximately 10:1. Therefore, it may be assumed that the AIE contribution to the GDP of Jordan was 3.67% instead of 4%. Therefore, taking the amount of water consumed by the agricultural sector and the AIE it may be concluded that 1m³ of water consumed in the agricultural sector contributes 0.39 JD to the total Jordanian GDP. This figure is compared to the AIE where one cubic meter of consumed water results in a contribution of 136.5 JD to the total Jordanian GDP.

Exports:

Water productivity in the AIE is approximately 145 higher than that of the agricultural sector. Every cubic meter of water consumed in the agricultural sector results in export revenues of 0.27 JD/m³ consumed, compared to 122 JD/m³ of water consumed by industries in the AIE.

6.3. Conclusion

According to the economic indicators presented above, intersectoral reallocation of water resources would seem to put to a better use Jordan's limited water resources. The industrial sector consumes less water, and does have higher returns in terms of contribution to employment, GDP, and exports.

As has been mentioned earlier the comparison presented in this document does not take into consideration the environmental and social costs of intersectoral reallocation water. Therefore, it should be remembered at all time that the above conclusions are not categorical and the issue should not be judged solely on economic bases.

Therefore, before any action is undertaken in the sectoral reallocation of water, extensive studies should be performed that would aim to detail and quantify the environmental and social effects of intersectoral reallocation of water.

Chapter 7: Case Study "Groundwater Economics"

Due to the financial and time costs that are associated with research and performing field and ground surveys, this chapter will be based on the findings of the study of "The Economics of Groundwater Management in Arid Countries". This study, which is published in 1998, was conducted by Manuel Schiffler, who is currently working as an economist at the World Bank. The data and the assumptions that are presented in the "Groundwater Economics" are sufficiently recent, dating back to 1996-1997 period, and are compatible with the objectives of this document.

The following sections present the objectives, methodology of the study, structure of the document, the assumptions that were used in constructing various scenarios, and the main findings that the document reached in groundwater management instruments.

7.1. Introduction

The study of "The Economics of Groundwater Management in Arid Countries" consists of two parts:

- Desktop work, which dealt with the theoretical part of the groundwater management models and the international experience; and
- Case study part that specifically discusses the groundwater management practices in Jordan, including water balance issues, policy-making, supply management, intertemporal allocation of groundwater in Jordan, intersectoral allocation, and present and new groundwater management instruments. The case study part focuses mostly on the Zarqa River Basin, as it is one of the most important river basins in Jordan. The Basin contains the largest two cities in Jordan: Amman and Zarqa and their outskirts, and is an important irrigated area. This part consist of a survey of major water-consuming industries, a survey of farmers in the Upper Zarqa Basin and interviews with officials and experts working in the water sector.

The empirical research for the study of the Jordanian case took place between April 1993 and March 1996.

7.2. Objectives and Methodology

The study's objectives were as follows:

- Determine the optimal intertemporal and intersectoral allocations of groundwater;
- Determine the economic instruments that are best suited for the reduction of groundwater demand taking into account political and public acceptability, including distribution concerns, environmental effectiveness, cost-effectiveness, and legal and administrative feasibility; and
- Determine the mechanism of these instruments action with the expansion of water supply.

The author has chosen Jordan as a case study and as an example is due to the fact that Jordan is one of the most water scarce countries in the world. Therefore, problems that are confronting Jordan in the present may well face other countries in the near future and Jordan's experience would be beneficial for these countries.

The author's case study methodology was based on empirical research consisting of a survey of major water-consuming industries, Upper-Zarqa Basin farmers' survey, and interviews with officials and experts in the water sector. This research was performed during the course of four separate visits that had a total duration of five months.

7.3. Comparison Depletion Paths and the Value of Groundwater Stocks

A hydro-economic model was applied to the groundwater in the Zarqa Basin over a time horizon of 50 years. The Zarqa Basin was chosen for the hydro economic model because water demand in it is rising fast and it has the highest rate of groundwater recharge. Therefore, the situation of the Zarqa River Basin is representative of the situations of other basins in Jordan if not now, then in the near future since they all suffer from overdraw. Although the overdraw in other basins is lower and the time until exhaustion longer, the same basic problem of overdraw arises as in the Zarqa basin. Table 26 summarizes Zarqa basin hydrological characteristics.

Table 26: Hydrology of Groundwater in the Zarqa Basin

Characteristic	Unit	Value
Area of the Basin	Km ²	2,000
Storage Coefficient	%	3
Total Stock	MCM	1,700
Usable Stock	MCM	850
Total Withdrawal	MCM/Year	164
Industrial Withdrawal	MCM/Year	12
Agricultural Withdrawal	MCM/Year	62
Municipal Withdrawal	MCM/Year	90
Natural Recharge	MCM/Year	88
Depletion	MCM/Year	76
Salinity	ppm	150 - 3,000

The hydro-economic model applied to the Zarqa River Basin assumes the following depletion paths of the groundwater in the basin:

- Path 1 Rapid abstraction. Groundwater abstraction continues at its present level until the groundwater stock is exhausted. Abstraction is then limited to an equilibrium level close to natural recharge.
- Path2 Slow abstraction. The overdraw is halved and depletion time doubled. As in Path 1, abstraction is limited to an equilibrium level after the stock is depleted.
- Path 3 No abstraction. Abstraction is limited to recharge and the aquifer is therefore maintained at an equilibrium level from the outset.

- Path 4 Future abstraction. Abstraction is limited to recharge for all but for the last 20 years of the time horizon, when groundwater is depleted exclusively for M&I uses.

The following assumptions were made for the model:

- The total groundwater stock in the basin is 1,700 MCM.
- Only 50% of this stock is usable because of quality constraints.
- The storage coefficient is estimated to be 3% meaning that 1 m³ of underground formation contains an average of 30 liters (3%) of water.
- The return flow coefficient in this model is the percentage of 1 m³ of water returning to the aquifer after use. The return flow coefficient to groundwater is estimated to be zero, because drip irrigation is widely used in agriculture so that there are no return flows and because wastewater is either reused or evaporates.
- The base flow of springs is assumed to be zero, because springs have dried up as a result of over pumping.
- The use of water from the aquifer for M&I purposes is assumed to remain constant (except for future depletion path 4). Any reduction of water use in the model from the present level is thus achieved at agriculture's expense. The cost-benefit analysis for paths 1 - 3 is therefore limited to the assessment of costs and benefits arising from agricultural water use.
- Calculations are made at 1994 prices.

Previous studies and research showed that the important factors affecting the net present value of a depletion path are the discount rate and assumptions concerning the future shadow price of water in different uses. The discount rate of 5 % was assumed for the comparison between the agricultural and Municipal and Industrial (M&I) sectors (Table 27).

Table 27: Comparison Between the Net Present Value (NPV) of the Income Stream from M&I Groundwater Use and Agricultural Groundwater Use at 5 % Discount Rate

Abstraction Path	Path 1: Rapid Depletion	Path 2: Slow Depletion	Path 3: No Depletion	Path 4: Future Depletion	Path with Highest NPV
Agriculture	109	104	31	31	1
M&I	2,145	2,145	2,145	2,440	4

The NPV of the M&I use is consistently higher than that of the agricultural use. The highest NPV in agricultural use is in Path 1 (rapid depletion), while the highest NPV in the M&I abstraction is Path 4 (future depletion).

Sensitivity analysis performed reveals that Path 3 leads to the lowest NPV, while the path with the highest NPV is Path 4. The NPV of Path 2 is generally similar to that of Path 1. Furthermore, Scenario II (no sectoral change, higher agricultural shadow price) leads to the lowest NPV across all depletion paths, while Scenario III (sectoral change, higher M&I shadow prices) leads to the highest NPV values across all

depletion paths. The highest NPV results from scenario III in path 4 (future depletion) and equals to JD 2830 million.

Table 28: NPV of the Income Stream from All Uses (JD m) at 5% Discount Rate Assuming Different Scenarios of Intersectoral Change of Water Use

No.	Scenarios / Depletion Path	Path 1: Rapid Depletion	Path 2: Slow Depletion	Path 3: No Depletion	Path 4: Future Depletion	Path with Highest NPV
I	Net Present Value of the Income Stream from All Uses (JD m)	2,254	2,249	2,176	2,471	4
II	No Sectoral Change, Higher Agricultural Shadow Price (JD m)	1,924	1,920	1,835	2,062	4
III	Sectoral Change, Higher M&I Shadow Price (JD m)	2,638	2,549	2,476	2,830	4
IV	Sectoral Change, Higher Agricultural Shadow Price (JD m)	2,215	2,158	2,072	2,365	4

7.4. Groundwater Management Instruments

New instruments are suggested based on the findings made in the theoretical part of the case study to optimize groundwater management in Jordan. The main existing groundwater management instruments in Jordan include property rights and groundwater abstraction permits, groundwater abstraction charges that are levied on industries, and municipal water tariffs. Other groundwater management instruments that have not been implemented in Jordan are discussed such as:

- Tradable property rights to groundwater: considered in theory to be an environmentally effective and economically efficient environmental policy instrument. Nevertheless, if it is not correctly implemented and abstraction limits are not strictly enforced (as is the case in Jordan), then allowing tradable property rights will lead to increase in groundwater abstraction. Furthermore, it will economically harm those who are working on the land but do not own it, especially if land owners decide to sell their water rights and terminate the agricultural use of their land.
- Abstraction charges for groundwater used in agriculture: even though this measure is increasingly recommended as a policy instrument for groundwater management, it has a number of draw backs mainly:
 - Charges may be abused for fiscal purposes;
 - The environmental effectiveness is uncertain;
 - Charges are inflexible when circumstances change; and
 - May raise strong political resistance from water users.
- Removal of subsidies and taxation on energy prices including diesel and electricity: the main advantages of such policy measures are the relative ease of monitoring and enforcement in addition to the incentive that they form to consumers to find the least cost solutions. One of the main disadvantages is that these measures target all the economical sectors, and may have adverse negative effects on sectors other than agriculture. Furthermore, the environmental effectiveness of such charges remains uncertain.

Agricultural import liberalization: Jordan has already begun liberalizing its agriculture sector in 1995. If full liberalization does occur it is expected that short term groundwater abstractions and agricultural production would increase, before they decrease back to stabilize. According to the study it is expected that a full liberalization on irrigated agriculture would lead to decrease in groundwater abstractions in the Jordanian Highlands at a higher rate than could be achieved through the implementation of a groundwater abstraction charge.

- Direct regulations such as regulating the cropping pattern and imposing technological standards: the main advantages of direct regulations is their political attractiveness and ease of introduction and implementation. Nevertheless, they have proved especially in developing countries to be ineffective and too expensive. Furthermore, regulating the cropping pattern is administratively difficult to implement, as experience in Jordan has showed when in 1985/1986 the Ministry of Agriculture tried to restrict cropping patterns in Jordan, the program was abandoned following its failure in 1990. Likewise, imposing technological standards may prove too costly for Jordanian farmers, especially that many of them are already using water saving technologies: 96% of irrigated area in Mafraq Governorate is irrigated using drip irrigation, compared to 68% in Zarqa Governorate, while only 2% of the irrigated area in Zarqa Governorate is irrigated through sprinklers and 0% in Mafraq Governorate.
- Subsidies for environmental improvement: in spite of their political attractiveness and ease of administration subsidization for environmental improvement has a number of disadvantages. These are: the polluter pays principle is not conformed to through this policy, production process becomes cheaper which encourages in its turn an increase in production, and their cost effectiveness and environmental effectiveness have not been proved yet.

The study therefore recommends a combination approach of any of the above mentioned methods to improve the groundwater management practices in Jordan. An example would be implementing groundwater tradable property rights in combination with groundwater charge, and minimal subsidy of the purchase of water conserving equipment. This approach would also need to be supplemented by other policy needs in water management in sectors other than agriculture, such as restructuring the municipal water tariff system, decreasing water leaks, and improving wastewater treatment systems.

Chapter 8: Towards Financial Sustainability of Utilities and Environmental Sustainability of Resources

8.1. Overview

The financial sustainability of utilities and the environmental sustainability of resources should be regarded as both essential and interdependent. There could not be environmental sustainability of resources achieved without the financial sustainability of utilities that regulate and supervise these resources. At the same time, the financial sustainability of utilities would not be achieved if resources are overused and their development is not one of a sustainable character.

In this regard it is essential to compromise in order to achieve the optimal financial and environmental sustainability of both utilities and resources.

Despite perhaps an impressive list of accomplishments to date, maintaining continuity of the process has been extremely difficult. Attempts made to restructure water agencies has not been able to address either the excess staffing levels or the hiring and retention of qualified staff; incentive programs to promote improved staff performance have not been developed. Formal training programs have not been fully instituted at the Ministry level.

The water tariff structures still remain too low to recover capital costs for water delivery. This is particularly so for irrigation water delivered in the Jordan River Valley. Reallocation of water resources among various economic sectors remains a highly sensitive issue.

8.2. Recommendations

Despite many studies performed so far focused on the economic indicators in comparing water productivity in the agricultural and economic sectors in Jordan. Even though the economy is an important parameter, studies should be performed comparing the sectors from the following perspectives:

1. Environmental perspective: the contribution of each sector to local and global environmental issues such as soil erosion and desertification control, biodiversity, air pollution, groundwater and surface water pollution, global warming, and ozone depletion. Models should be made of environmental pollution levels resulting from intersectoral reallocation of water and reductions in the size of any of the sectors on the main environmental pollution parameters especially air and noise pollution.
2. Public Health perspective: the effects of each sector on the public health of the populations dependant on the agricultural and industrial sectors. Studies on the effects of intersectoral reallocation of water on Jordan's public health indicators as a whole, taking into consideration the possible environmental impacts of intersectoral reallocation of water.

3. Social perspective: the industrial and agricultural sectors support totally different social structures. Studies of these structures, the number of people dependent on them, and the social impacts of intersectoral reallocation of water should be studied in detail taking into consideration not only the present situation but also the effects on future generations.

However, due to the limited number of studies performed in the field of groundwater, and intersectoral allocation of water that take care of the above mentioned perspectives. The following studies are needed to obtain a more complete picture and a better assessment of the situation in Jordan:

- Detailed study of the aquifers in Jordan. Many studies take into consideration the basin as a whole, which gives an approximate picture but not an accurate one that is required to better model and predict depletion rates and future qualities of groundwater.
- Studies of the groundwater in the Jordanian Highlands in terms of detailed quality and quantity of available water, and current and future abstractions.
- Studies of the methods of irrigation, actual efficiencies of the methods used, and study of the application of new methods to increase the efficiency of irrigation in the agricultural sector in Jordan.
- Studies on the methods for water conservation, recycling and reuse across all the user sectors in Jordan.

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Annexes

Annexes 1

Population Projections

Population Projections

TOWN OR VILLAGE ID	OR CODE	VILLAGE/TOWN NAME	1994 POPULATION	GOVERNORATE	DISTRICT	POPULATION	1995	2000	2005	2010	2015	2020
YEAR												
GROWTH RATE %												
1421	120	ABU AZ ZAYTOUN	24	AILOUN	AILOUN	25	3.6	3.4	3.1	2.9	2.7	
1937	120	AFNA	1209	AILOUN	AILOUN	1,253		30	35	41	47	54
1802	120	AIN JAINNA	7506	AILOUN	AILOUN	7,776		1,495	1,767	2,058	2,374	2,713
1789	164	AIJUN	6616	AILOUN	AILOUN	6,854		8,180	9,668	12,778	14,741	16,842
1822	120	AL FAKHRA	108	AILOUN	AILOUN	112		134	158	184	212	242
138	160	AL HANASH	0	AILOUN	AILOUN	0		0	0	0	0	0
1798	120	AL HASHIMIYA	5153	AILOUN	AILOUN	5,339		6,371	7,530	8,772	10,120	11,562
2403	164	ANJARA	13789	AILOUN	AILOUN	14,285		17,049	20,151	23,474	27,081	30,940
136	140	AR RAS AL AQRA	219	AILOUN	AILOUN	227		271	320	373	430	491
131	140	AS SAKSARA	231	AILOUN	AILOUN	239		286	338	393	454	518
1820	120	AS SAKHINA	184	AILOUN	AILOUN	191		227	269	313	361	413
1430	120	AS SARABIS	7	AILOUN	AILOUN	7		9	10	12	14	16
1818	120	AS SUQ	61	AILOUN	AILOUN	63		75	89	104	120	137
137	140	AS SUWWAN	174	AILOUN	AILOUN	180		215	254	296	342	390
1440	120	ASH SHIKARA	686	AILOUN	AILOUN	711		848	1,003	1,168	1,347	1,539
1792	120	AT TIYYARA	216	AILOUN	AILOUN	224		267	316	368	424	485
1786	120	AWSARA	1475	AILOUN	AILOUN	1,528		1,824	2,156	2,511	2,897	3,310
1821	120	AZ ZIRAAH	250	AILOUN	AILOUN	259		309	365	426	491	561
1794	120	BA LIN	2766	AILOUN	AILOUN	2,866		3,420	4,042	4,709	5,432	6,206
132	140	BHER AD DALIYA	181	AILOUN	AILOUN	188		224	265	308	355	406
133	140	DAYR AL BIRAK	29	AILOUN	AILOUN	30		36	42	49	57	65
1800	120	DAYR ASSMADITY	94	AILOUN	AILOUN	97		116	137	160	185	211
1799	120	DAYR ASSMADITY	144	AILOUN	AILOUN	149		178	210	245	283	323
1797	120	HALAWA	4207	AILOUN	AILOUN	4,358		5,202	6,148	7,162	8,262	9,440
1838	120	IBBIN	5413	AILOUN	AILOUN	5,608		6,693	7,910	9,215	10,631	12,146
1789	120	IBLIN	1132	AILOUN	AILOUN	1,173		1,400	1,654	1,927	2,223	2,540
1785	120	IRJAN	3945	AILOUN	AILOUN	4,087		4,878	5,765	6,716	7,748	8,852
1793	120	ISHTAFINA	454	AILOUN	AILOUN	470		561	663	773	892	1,019
1801	120	KHERRAT AL WAH	3842	AILOUN	AILOUN	3,980		4,750	5,615	6,541	7,546	8,621
258	140	KHUSHAYBA AL F	458	AILOUN	AILOUN	474		566	669	780	899	1,028
1791	120	MHINA	847	AILOUN	AILOUN	877		1,047	1,238	1,442	1,663	1,900
1790	120	RASUN	1937	AILOUN	AILOUN	2,007		2,395	2,831	3,297	3,804	4,346
1777	164	SAKHRA	8156	AILOUN	AILOUN	8,450		10,084	11,919	13,885	16,018	18,300
1415	120	SAMITA	395	AILOUN	AILOUN	409		488	577	672	776	886
1412	120	SIN AR	572	AILOUN	AILOUN	593		707	836	974	1,123	1,283
1427	120	UMM AL JULUD	0	AILOUN	AILOUN	0		0	0	0	0	0
1418	120	UMM AL YANABI	198	AILOUN	AILOUN	205		245	289	337	389	444
135	140	USAYM	165	AILOUN	AILOUN	171		204	241	281	324	370
		OTHERS	736	AILOUN	AILOUN	762		910	1,076	1,253	1,445	1,651
		SUB TOTAL	73,579	AILOUN	AILOUN	76,228		90,973	107,526	125,259	144,506	165,996
71	140	AL HARITH	284	AILOUN	KUFRANJA	294		351	415	483	558	637

Population Projections

1431	120	AS SAFINA	852	AILOUN	KUFRANJA 883	1,033	1,245	1,450	1,673	1,912
1819	120	BALLAS	791	AILOUN	KUFRANJA 819	978	1,156	1,347	1,553	1,775
1843	164	KUFRANJA	16714	AILOUN	KUFRANJA 17,316	20,665	24,425	28,453	32,826	37,503
1823	120	RAJIB	1519	AILOUN	KUFRANJA 1,574	1,878	2,220	2,586	2,983	3,408
1824	120	THAGRIT ZBEYD	263	AILOUN	KUFRANJA 272	325	384	448	517	590
		OTHERS	202	AILOUN	KUFRANJA 209	250	295	344	397	453
		SUB TOTAL	20,625	AILOUN	KUFRANJA 21,368	25,501	30,141	35,111	40,507	46,278
		GRAND TOTAL	94,204	AILOUN		116,474	137,667	160,370	185,012	211,375
174	160	AD DURRA	0	AL AQABAH	AL AQABA 0	0	0	0	0	0
2110	164	AL AQABAH	61673	AL AQABAH	AL AQABA 63,893	76,252	90,127	104,990	121,123	138,382
2425	130	AL MUZAFFER	175	AL AQABAH	AL AQABA 181	216	256	298	344	393
175	160	AL YAMANIYYA	0	AL AQABAH	AL AQABA 0	0	0	0	0	0
1836	120	TIJIN	356	AL AQABAH	AL AQABA 369	440	520	606	699	799
2424	130	WADI AL YUTUM	12	AL AQABAH	AL AQABA 12	15	18	20	24	27
		OTHERS	60	AL AQABAH	AL AQABA 62	74	88	102	118	135
		SUB TOTAL	62,276	AL AQABAH	AL AQABA 64,518	76,998	91,008	106,017	122,307	139,735
188	160	AL JUDAYYIDA	0	AL AQABA	AL QUWAY 0	0	0	0	0	0
1919	120	AD DISI	1206	AL AQABAH	AL QUWAY 1,249	1,491	1,762	2,053	2,369	2,706
1839	120	AL GHAL	143	AL AQABAH	AL QUWAY 148	177	209	243	281	321
1805	120	AL HUMAYMA AL	719	AL AQABAH	AL QUWAY 745	889	1,051	1,224	1,412	1,613
1802	120	AL HUMAYMA AL	142	AL AQABAH	AL QUWAY 147	176	208	242	279	319
1807	120	AL KHALIDI	0	AL AQABAH	AL QUWAY 0	0	0	0	0	0
1916	120	AL MUNAYSHIR	281	AL AQABAH	AL QUWAY 291	347	411	478	552	631
2402	164	AL QUWAYRA	4930	AL AQABAH	AL QUWAY 5,107	6,095	7,205	8,393	9,682	11,062
1917	120	AR RASHIDIYYA	1114	AL AQABAH	AL QUWAY 1,154	1,377	1,628	1,896	2,188	2,500
190	160	AR RATMA	0	AL AQABAH	AL QUWAY 0	0	0	0	0	0
2430	130	AT TAWHEEL	160	AL AQABAH	AL QUWAY 166	198	234	272	314	359
1808	120	AT TUWYSA	620	AL AQABAH	AL QUWAY 642	767	906	1,055	1,218	1,391
1801	120	DABBIT HANUT	639	AL AQABAH	AL QUWAY 662	790	934	1,088	1,255	1,434
186	160	HASMA	0	AL AQABAH	AL QUWAY 0	0	0	0	0	0
189	160	QA AN NAQAB	0	AL AQABAH	AL QUWAY 0	0	0	0	0	0
1838	120	RUM	675	AL AQABAH	AL QUWAY 699	835	986	1,149	1,326	1,515
187	160	THALLAJA	0	AL AQABAH	AL QUWAY 0	0	0	0	0	0
		OTHERS	14083	AL AQABAH	AL QUWAY 14,590	17,412	20,381	23,975	27,658	31,599
		SUB TOTAL	24,712	AL AQABAH	AL QUWA 25,602	30,554	36,113	42,069	48,533	55,449
1591	120	AR RISHA	732	AL AQABAH	WADI ARRA 758	905	1,070	1,246	1,438	1,642
1912	120	BEER MATHKOR	352	AL AQABAH	WADI ARRA 365	435	514	599	691	790
260	150	FINAN	249	AL AQABAH	WADI ARRA 258	308	364	424	489	559
1913	120	GARANDAL	21	AL AQABAH	WADI ARRA 22	26	31	36	41	47
2431	130	QATAR	153	AL AQABAH	WADI ARRA 159	189	224	260	300	343
2427	130	QURAYQIRA	674	AL AQABAH	WADI ARRA 698	833	985	1,147	1,324	1,512
1804	120	RAHMA	674	AL AQABAH	WADI ARRA 698	833	985	1,147	1,324	1,512
189	160	TABA	0	AL AQABAH	WADI ARRA 0	0	0	0	0	0
243	160	UNM MATHLA	0	AL AQABAH	WADI ARRA 0	0	0	0	0	0

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		OTHERS	433	AL AQABAH	WADI ARRA 449	535	633	737	850	972
		SUB TOTAL	3,288	AL AQABAH	WADI ARRA 3,406	4,065	4,805	5,597	6,457	7,378
		GRAND TOTAL	90,276	AL AQABAH		111,617	131,927	153,683	177,298	202,561
1481	120	AD DURAYSAT	93	AL BALQA	AL ARDA 96	115	136	158	183	209
1460	120	AL BUWAYB	166	AL BALQA	AL ARDA 172	205	243	283	326	372
1486	120	AL HAQAWA	581	AL BALQA	AL ARDA 602	718	849	989	1,141	1,304
184	160	AL MANSURA	0	AL BALQA	AL ARDA 0	0	0	0	0	0
1469	120	AL QUSAYB	262	AL BALQA	AL ARDA 271	324	383	446	515	588
1866	120	AS SUBAYHI	3167	AL BALQA	AL ARDA 3,281	3,916	4,628	5,391	6,220	7,106
1477	120	BAYYUDA AL GHA	224	AL BALQA	AL ARDA 232	277	327	381	440	503
1470	120	BAYYUDA ASH SH	207	AL BALQA	AL ARDA 214	256	303	352	407	464
1864	120	BAYYUDA ASH SH	477	AL BALQA	AL ARDA 494	590	697	812	937	1,070
1471	120	JARISH	156	AL BALQA	AL ARDA 162	193	228	266	306	350
1479	120	KHISHFA	288	AL BALQA	AL ARDA 298	356	421	490	566	646
1865	120	MAYSARA	427	AL BALQA	AL ARDA 442	528	624	727	839	958
1862	120	SIHAN	816	AL BALQA	AL ARDA 845	1,009	1,192	1,389	1,603	1,831
1466	120	ULAYQUN	253	AL BALQA	AL ARDA 262	313	370	431	497	568
		OTHERS	119	AL BALQA	AL ARDA 123	147	174	203	234	267
		SUB TOTAL	7,236	AL BALQA	AL ARDA 7,496	8,947	10,574	12,318	14,211	16,236
146	140	ABU HAMID	500	AL BALQA	AL BALQA 518	618	731	851	982	1,122
1844	120	ABU NUSAYR	3182	AL BALQA	AL BALQA 3,297	3,934	4,650	5,417	6,249	7,140
1522	120	AD DAYIR	0	AL BALQA	AL BALQA 0	0	0	0	0	0
1478	120	ADH DHAHRA	0	AL BALQA	AL BALQA 0	0	0	0	0	0
1519	120	AL ABHARA	0	AL BALQA	AL BALQA 0	0	0	0	0	0
1855	120	AL ASHRAFTYYA	0	AL BALQA	AL BALQA 0	0	0	0	0	0
1866	164	AL FUHAYS	10097	AL BALQA	AL BALQA 10,460	12,484	14,755	17,189	19,830	22,656
248	140	AL HANOU	2120	AL BALQA	AL BALQA 2,196	2,621	3,098	3,609	4,164	4,757
1503	120	AL HUDAYB	171	AL BALQA	AL BALQA 177	211	250	291	336	384
147	140	AL MAGHAREEB	539	AL BALQA	AL BALQA 558	666	788	918	1,059	1,209
1521	120	AL MAHASINA	0	AL BALQA	AL BALQA 0	0	0	0	0	0
1118	164	AL MAJDALA	0	AL BALQA	AL BALQA 0	0	0	0	0	0
232	155	AL MIDMAR	0	AL BALQA	AL BALQA 0	0	0	0	0	0
1863	120	AL MINSH	0	AL BALQA	AL BALQA 0	0	0	0	0	0
1506	120	AL MUDARI	550	AL BALQA	AL BALQA 570	680	804	936	1,080	1,234
1482	120	AL QULAYB	0	AL BALQA	AL BALQA 0	0	0	0	0	0
1498	120	AL WASIYYA	203	AL BALQA	AL BALQA 210	251	297	346	399	455
1858	120	AL YAZIDIYYA	716	AL BALQA	AL BALQA 742	885	1,046	1,219	1,406	1,607
1516	120	AR RAQAIYQ	0	AL BALQA	AL BALQA 0	0	0	0	0	0
1857	120	AR RUBA	0	AL BALQA	AL BALQA 0	0	0	0	0	0
1854	120	AR RUMAYMN	1332	AL BALQA	AL BALQA 1,380	1,647	1,947	2,268	2,616	2,989
1847	120	AR RUMMAN	629	AL BALQA	AL BALQA 652	778	919	1,071	1,235	1,411
1499	120	AS SAHLULIYYA	205	AL BALQA	AL BALQA 212	253	300	349	403	460
1067	164	AS SALT	56296	AL BALQA	AL BALQA 58,323	69,604	82,269	95,837	110,563	126,317
231	140	AS SAROU	927	AL BALQA	AL BALQA 960	1,146	1,355	1,578	1,821	2,080
1490	120	AS SLEIYHI	925	AL BALQA	AL BALQA 958	1,144	1,352	1,575	1,817	2,076

Population Projections

[illegible]

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1134	164	AL KARAMA	7352	AL BALQA	SOUTH SH	7,617	9,090	10,744	12,516	14,439	16,496
1136	164	AL KARAMA	0	AL BALQA	SOUTH SH	0	0	0	0	0	0
1137	164	AL KARAMA	0	AL BALQA	SOUTH SH	0	0	0	0	0	0
1143	164	AL KARAMA	0	AL BALQA	SOUTH SH	0	0	0	0	0	0
1257	164	AN NAHDA	0	AL BALQA	SOUTH SH	0	0	0	0	0	0
1236	164	AR RAMA	2202	AL BALQA	SOUTH SH	2,281	2,723	3,218	3,749	4,325	4,941
17	140	AR RAWDA	6481	AL BALQA	SOUTH SH	6,714	8,013	9,471	11,033	12,728	14,542
1168	164	ASH SHUNA AL JA	2727	AL BALQA	SOUTH SH	2,825	3,372	3,985	4,642	5,356	6,119
18	140	JAWFAT AL KAFR	5036	AL BALQA	SOUTH SH	5,217	6,227	7,359	8,573	9,890	11,300
1175	164	MUKHAYYAM GH	0	AL BALQA	SOUTH SH	0	0	0	0	0	0
1154	164	SAKNAT ASH SHU	3998	AL BALQA	SOUTH SH	4,038	4,819	5,696	6,636	7,655	8,746
1293	164	SUWAYMA	0	AL BALQA	SOUTH SH	0	0	0	0	0	0
1288	164	SUWAYMA	2053	AL BALQA	SOUTH SH	2,127	2,538	3,000	3,495	4,032	4,607
2408	164	SUWAYMA	0	AL BALQA	SOUTH SH	0	0	0	0	0	0
		SUB TOTAL	33,576	AL BALQA	SOUTH SH	34,785	41,513	49,467	57,159	65,942	75,338
1285	120	AD DIRA AL GHAR	101	AL BALQA	ZAY	105	125	148	172	198	227
1482	120	AD DIRA ASH SHA	295	AL BALQA	ZAY	306	365	431	502	579	662
1860	120	AL ALIA	0	AL BALQA	ZAY	0	0	0	0	0	0
1491	120	ALLAN	2485	AL BALQA	ZAY	2,574	3,072	3,632	4,230	4,880	5,576
1502	120	DAM	340	AL BALQA	ZAY	352	420	497	579	668	763
1861	120	JAL AD	476	AL BALQA	ZAY	493	589	696	810	935	1,068
28	140	MUSHREFA	169	AL BALQA	ZAY	175	209	247	288	332	379
1464	120	SUMYA	164	AL BALQA	ZAY	170	203	240	279	322	368
1484	120	UNAM AL AMAD	812	AL BALQA	ZAY	841	1,004	1,187	1,382	1,595	1,822
1496	120	ZAY	1915	AL BALQA	ZAY	1,984	2,368	2,799	3,260	3,761	4,297
		SUB TOTAL	6,757	AL BALQA	ZAY	7,000	8,354	9,875	11,503	13,270	15,161
		GRAND TOTAL	273,489	AL BALQA		283,335	338,141	399,670	465,580	537,120	613,654
2459	130	AD DAMIKHI	399	AL KARAK	AL KARAK	413	493	583	679	784	895
1493	164	ADIR	3595	AL KARAK	AL KARAK	3,724	4,445	5,254	6,120	7,060	8,066
2381	164	AL ABDALIYYA	171	AL KARAK	AL KARAK	177	211	250	291	336	384
1513	164	AL ADNANIYYA	1976	AL KARAK	AL KARAK	2,047	2,443	2,888	3,364	3,881	4,434
1515	164	AL ADNANIYYA	0	AL KARAK	AL KARAK	0	0	0	0	0	0
217	155	AL BAQEE	0	AL KARAK	AL KARAK	0	0	0	0	0	0
151	140	AL BAWWAB	17	AL KARAK	AL KARAK	18	21	25	29	33	38
216	160	AL BISAS	0	AL KARAK	AL KARAK	0	0	0	0	0	0
152	140	AL GHUWAYR	1532	AL KARAK	AL KARAK	1,587	1,894	2,239	2,608	3,009	3,437
1531	120	AL HAWIYYA	442	AL KARAK	AL KARAK	458	546	646	752	868	992
1478	164	AL JUDAYDA	2836	AL KARAK	AL KARAK	2,938	3,506	4,144	4,828	5,570	6,363
1497	164	AL KARAK	18387	AL KARAK	AL KARAK	19,236	22,981	27,163	31,642	36,504	41,705
2422	164	AL KARAK	0	AL KARAK	AL KARAK	0	0	0	0	0	0
1482	164	AL LAJUN	219	AL KARAK	AL KARAK	227	271	320	373	430	491
2468	130	AL MAHMOUDIYY	156	AL KARAK	AL KARAK	162	193	228	266	306	350
153	140	AL MAMUNIYYA	285	AL KARAK	AL KARAK	295	352	416	485	560	639
154	140	AL MURAYGHA	233	AL KARAK	AL KARAK	241	288	341	397	458	523
1533	120	AL MUSHAYREFA	513	AL KARAK	AL KARAK	531	634	750	873	1,008	1,151

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1904	120	AL QATRAHA	3606	AL KARAK	AL KARAK	3,736	4,458	5,270	6,139	7,082	8,091
2462	130	AL WADI AL ABYA	539	AL KARAK	AL KARAK	558	666	788	918	1,059	1,209
2463	130	AL WASIYA	775	AL KARAK	AL KARAK	803	958	1,133	1,319	1,522	1,739
220	160	AN NJASHIYA	0	AL KARAK	AL KARAK	0	0	0	0	0	0
2464	130	AR RASHDIYYA	881	AL KARAK	AL KARAK	913	1,089	1,287	1,500	1,730	1,977
1884	120	AR RAWDA	431	AL KARAK	AL KARAK	447	533	630	734	846	967
1988	120	AS SALHIYYA	386	AL KARAK	AL KARAK	400	477	564	657	758	866
219	160	AS SUBAYHAT	0	AL KARAK	AL KARAK	0	0	0	0	0	0
1501	164	ASH SHAHABIYYA	3108	AL KARAK	AL KARAK	3,220	3,843	4,542	5,291	6,104	6,974
1503	164	ATH THANIYYA	2110	AL KARAK	AL KARAK	2,186	2,609	3,083	3,592	4,144	4,734
1532	120	AYNUN	406	AL KARAK	AL KARAK	421	502	593	691	797	911
2461	130	AZ ZUGHRIYYA	116	AL KARAK	AL KARAK	120	143	170	197	228	260
155	150	BAQEE AL AGHAW	512	AL KARAK	AL KARAK	530	633	748	872	1,006	1,149
2489	130	BARDA	492	AL KARAK	AL KARAK	510	608	719	838	966	1,104
1885	120	BATHAN	351	AL KARAK	AL KARAK	364	434	513	598	689	788
1893	120	BATIR	1207	AL KARAK	AL KARAK	1,250	1,492	1,764	2,055	2,370	2,708
1530	120	IZRA	0	AL KARAK	AL KARAK	0	0	0	0	0	0
157	140	KIMINNA	57	AL KARAK	AL KARAK	59	70	83	97	112	128
1496	164	MANSHIYYAT AB	2814	AL KARAK	AL KARAK	2,915	3,479	4,112	4,790	5,527	6,314
1514	164	MIDIN	1092	AL KARAK	AL KARAK	1,131	1,350	1,596	1,859	2,145	2,450
1516	164	MIRWID	1246	AL KARAK	AL KARAK	1,291	1,541	1,821	2,121	2,447	2,796
2382	164	MOUMYA	450	AL KARAK	AL KARAK	466	556	658	766	884	1,010
2460	130	QREYFLA	109	AL KARAK	AL KARAK	113	135	159	186	214	245
1488	164	RAKIN	0	AL KARAK	AL KARAK	0	0	0	0	0	0
1488	164	RAKIN	2877	AL KARAK	AL KARAK	2,981	3,557	4,204	4,898	5,650	6,455
590	164	SAD AS SULTANI	1605	AL KARAK	AL KARAK	1,663	1,984	2,346	2,732	3,152	3,601
2447	130	SAKKA	567	AL KARAK	AL KARAK	587	701	829	965	1,114	1,272
1484	164	SAMRA	639	AL KARAK	AL KARAK	662	790	934	1,088	1,255	1,434
1957	120	SAVL AL KARAK	402	AL KARAK	AL KARAK	416	497	587	684	790	902
285	160	SUBOUR	35	AL KARAK	AL KARAK	36	43	51	60	69	79
2458	130	UMM RUMMANA	66	AL KARAK	AL KARAK	68	82	96	112	130	148
1892	120	WADI BEN HAMMA	231	AL KARAK	AL KARAK	239	286	338	393	454	518
1502	164	ZAHUM	822	AL KARAK	AL KARAK	852	1,016	1,201	1,399	1,614	1,844
155	155	OTHERS	114	AL KARAK	AL KARAK	118	141	167	194	224	256
		SUB TOTAL	59,007	AL KARAK	AL KARAK	61,131	72,956	86,231	100,452	115,887	132,400
1536	120	AD DABBA	152	AL KARAK	AL MAZAR	157	188	222	259	299	341
2456	130	AD DIBAKA	76	AL KARAK	AL MAZAR	79	94	111	129	149	171
2449	130	AJHARA	524	AL KARAK	AL MAZAR	543	648	766	892	1,029	1,176
2450	130	AL AMQA	240	AL KARAK	AL MAZAR	249	297	351	409	471	539
255	170	AL FAJI	0	AL KARAK	AL MAZAR	0	0	0	0	0	0
2452	130	AL FAYSALIYYA	852	AL KARAK	AL MAZAR	883	1,053	1,245	1,450	1,673	1,912
2457	130	AL HADBA	69	AL KARAK	AL MAZAR	71	85	101	117	136	155
1546	120	AL HAMIDIYYA	164	AL KARAK	AL MAZAR	170	203	240	279	322	368
2454	130	AL HARITHIYYA	406	AL KARAK	AL MAZAR	421	502	593	691	797	911
241	160	AL HASHIMIYYA	0	AL KARAK	AL MAZAR	0	0	0	0	0	0
1556	164	AL HASHIMIYYA A	1186	AL KARAK	AL MAZAR	1,229	1,466	1,733	2,019	2,329	2,661
1552	164	AL HUSAYNIYAH	3067	AL KARAK	AL MAZAR	3,177	3,792	4,482	5,221	6,023	6,882

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76	140	AL ISAWIYYA	37	AL KARAK	AL MAZAR	38	46	54	63	73	83
1526	164	AL JAFARIYYA	0	AL KARAK	AL MAZAR	0	0	0	0	0	0
1649	120	AL JAWZA	110	AL KARAK	AL MAZAR	114	136	161	187	216	247
2453	130	AL JUWAYT	76	AL KARAK	AL MAZAR	79	94	111	129	149	171
1551	164	AL KHALDIYYA	992	AL KARAK	AL MAZAR	1,028	1,227	1,450	1,689	1,948	2,226
1530	164	AL MAZAR AL JAN	7855	AL KARAK	AL MAZAR	8,138	9,712	11,479	13,372	15,427	17,625
1650	120	AL MUJAYDEL	118	AL KARAK	AL MAZAR	122	146	172	201	232	265
2451	130	AL UMARIYYA (D	1401	AL KARAK	AL MAZAR	1,451	1,732	2,047	2,385	2,752	3,144
1538	120	AN NUAYMA	330	AL KARAK	AL MAZAR	342	408	482	562	648	740
63	140	AN NUHAYL WAL	5	AL KARAK	AL MAZAR	5	6	7	9	10	11
1540	120	ASH SHUQAYRA A	1255	AL KARAK	AL MAZAR	1,300	1,552	1,834	2,136	2,465	2,816
1542	120	ASH SHUQAYRA A	280	AL KARAK	AL MAZAR	290	346	409	477	550	628
2455	130	AT TALHIYYA	127	AL KARAK	AL MAZAR	132	157	186	216	249	285
1533	164	AT TAYYIBA	0	AL KARAK	AL MAZAR	0	0	0	0	0	0
1536	164	AT TAYYIBA	4277	AL KARAK	AL MAZAR	4,431	5,288	6,250	7,281	8,400	9,597
1543	120	AYNA	214	AL KARAK	AL MAZAR	222	265	313	364	420	480
1537	120	BAQI SIRARA	0	AL KARAK	AL MAZAR	0	0	0	0	0	0
68	140	KHAWKHA	7	AL KARAK	AL MAZAR	7	9	10	12	14	16
1553	164	MAIRA	272	AL KARAK	AL MAZAR	282	336	397	463	534	610
1540	164	MANSHIYYAT AL	758	AL KARAK	AL MAZAR	785	937	1,108	1,290	1,489	1,701
1541	164	MANSHIYYAT AL	0	AL KARAK	AL MAZAR	0	0	0	0	0	0
1550	164	MU'AB	0	AL KARAK	AL MAZAR	0	0	0	0	0	0
1536	120	MUHAYY	2390	AL KARAK	AL MAZAR	2,476	2,955	3,493	4,069	4,694	5,363
1518	164	MUTA	8207	AL KARAK	AL MAZAR	8,502	10,147	11,993	13,971	16,118	18,415
1517	164	MUTA UNIVERSIT	0	AL KARAK	AL MAZAR	0	0	0	0	0	0
1898	120	NAKHAL	0	AL KARAK	AL MAZAR	0	0	0	0	0	0
2448	130	SIRARA	71	AL KARAK	AL MAZAR	74	88	104	121	139	159
1531	164	SUL	2093	AL KARAK	AL MAZAR	2,168	2,588	3,059	3,563	4,111	4,696
1557	164	THAT RAS	2339	AL KARAK	AL MAZAR	2,423	2,892	3,418	3,982	4,594	5,248
1534	120	UNMM AL GHUZLA	630	AL KARAK	AL MAZAR	653	779	921	1,072	1,237	1,414
1535	120	UNMM AL KHANAZI	4	AL KARAK	AL MAZAR	4	5	6	7	8	9
1899	120	UNMM AL YANABI	36	AL KARAK	AL MAZAR	37	45	53	61	71	81
1546	164	UNMM HAMAT	1424	AL KARAK	AL MAZAR	1,475	1,761	2,081	2,424	2,797	3,195
208	160	WADI AL AYNA	0	AL KARAK	AL MAZAR	0	0	0	0	0	0
		OTHERS	350	AL KARAK	AL MAZAR	363	433	511	596	687	785
		SUB TOTAL	42,394	AL KARAK	AL MAZAR	43,920	52,416	61,953	72,170	83,260	95,124
1476	164	AL MAZRAA	5970	AL KARAK	AL MAZRA	6,185	7,381	8,724	10,163	11,725	13,395
1468	164	GHOR AL HADITH	2672	AL KARAK	AL MAZRA	2,768	3,304	3,905	4,549	5,248	5,995
2439	130	GHOR ATH THRA	2645	AL KARAK	AL MAZRA	2,740	3,270	3,865	4,503	5,195	5,935
2440	130	GHOR ISAL	811	AL KARAK	AL MAZRA	840	1,003	1,185	1,381	1,593	1,820
2441	130	QASR AL BLEYDA	0	AL KARAK	AL MAZRA	0	0	0	0	0	0
		OTHERS	168	AL KARAK	AL MAZRA	174	208	246	286	330	377
		SUB TOTAL	12,266	AL KARAK	AL MAZRA	12,708	15,166	17,925	20,881	24,090	27,522
2467	130	ABU TURABA	359	AL KARAK	AL QASR	372	444	525	611	705	806
1885	120	AL ALYA	443	AL KARAK	AL QASR	459	548	647	754	870	994
1451	164	AL MUGHAYYR	765	AL KARAK	AL QASR	793	946	1,118	1,302	1,502	1,717

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1884	120	AL MUJIB	649	AL KARAK	AL QASR	672	802	948	1,105	1,275	1,456
1482	184	AL QASR	3130	AL KARAK	AL QASR	3,243	3,870	4,574	5,328	6,147	7,023
1468	184	AL YAROUT	1097	AL KARAK	AL QASR	1,136	1,356	1,618	1,908	2,214	2,461
1475	184	AR RABBA	3470	AL KARAK	AL QASR	3,595	4,290	5,071	5,907	6,815	7,786
2468	130	AR RASHAYDA	181	AL KARAK	AL QASR	188	224	265	308	355	406
1448	184	ARIHA	441	AL KARAK	AL QASR	457	545	644	751	866	990
1466	184	AS SIMAKIYYA	1438	AL KARAK	AL QASR	1,490	1,778	2,101	2,448	2,824	3,227
1891	120	DIMNA	886	AL KARAK	AL QASR	918	1,095	1,295	1,508	1,740	1,988
1470	184	HUMUD	397	AL KARAK	AL QASR	411	491	580	676	780	891
1453	184	JADA	2002	AL KARAK	AL QASR	2,074	2,475	2,926	3,408	3,932	4,492
1454	184	JADA	0	AL KARAK	AL QASR	0	0	0	0	0	0
1896	120	MASAR	419	AL KARAK	AL QASR	434	518	612	713	823	940
1455	184	SHIHAN	499	AL KARAK	AL QASR	517	617	729	849	980	1,120
1457	184	SHIHAN	0	AL KARAK	AL QASR	0	0	0	0	0	0
		OTHERS	363	AL KARAK	AL QASR	376	449	530	618	713	814
		SUB TOTAL	16,539	AL KARAK	AL QASR	17,134	20,449	24,170	28,156	32,482	37,110
259	140	AL MAMOURA	493	AL KARAK	AS SAFI	511	610	720	839	968	1,106
1554	184	AN NAQA	0	AL KARAK	AS SAFI	0	0	0	0	0	0
1542	184	AS SAFI	0	AL KARAK	AS SAFI	0	0	0	0	0	0
1547	184	AS SAFI	13349	AL KARAK	AS SAFI	13,830	16,505	19,508	22,725	26,217	29,952
1800	120	FEAH	1578	AL KARAK	AS SAFI	1,635	1,951	2,306	2,686	3,099	3,541
221	180	GHOR AL HINNAW	0	AL KARAK	AS SAFI	0	0	0	0	0	0
167	180	GHOR KHUNAYZE	0	AL KARAK	AS SAFI	0	0	0	0	0	0
1	140	GHOR NUMEYRA	0	AL KARAK	AS SAFI	0	0	0	0	0	0
1479	184	POTASH CO. CITY	0	AL KARAK	AS SAFI	0	0	0	0	0	0
1480	184	POTASH CO. CITY	0	AL KARAK	AS SAFI	0	0	0	0	0	0
2436	128	KHAYZEERA	0	AL KARAK	AS SAFI	0	0	0	0	0	0
		OTHERS	165	AL KARAK	AS SAFI	171	204	241	281	324	370
		SUB TOTAL	15,585	AL KARAK	AS SAFI	16,146	19,269	22,776	26,531	30,608	34,970
2437	130	AL BAHR	71	AL KARAK	AYY	74	88	104	121	139	159
171	180	AL IMYAN	0	AL KARAK	AYY	0	0	0	0	0	0
1520	184	AL IRAQ	2702	AL KARAK	AYY	2,799	3,341	3,949	4,600	5,307	6,063
1510	184	AYY	6020	AL KARAK	AYY	6,237	7,443	8,797	10,248	11,823	13,508
1511	184	AYY	0	AL KARAK	AYY	0	0	0	0	0	0
1528	120	JAWZA AL JANUBI	615	AL KARAK	AYY	637	760	899	1,047	1,208	1,380
1896	120	JAWZA ASH SHAM	1257	AL KARAK	AYY	1,302	1,554	1,837	2,140	2,469	2,820
1508	184	KUTHRABBA	2925	AL KARAK	AYY	3,030	3,616	4,275	4,979	5,745	6,563
		OTHERS	35	AL KARAK	AYY	36	43	51	60	69	79
		SUB TOTAL	13,625	AL KARAK	AYY	14,116	16,846	19,911	23,195	26,759	30,572
1898	120	AZ ZAHERA	718	AL KARAK	FOOU	744	888	1,049	1,222	1,410	1,611
1887	120	IMRA	4128	AL KARAK	FOOU	4,277	5,104	6,033	7,027	8,107	9,262
1889	120	IMRA	1535	AL KARAK	FOOU	1,590	1,898	2,243	2,613	3,015	3,444
1459	184	MADULAYN	126	AL KARAK	FOOU	131	156	184	214	247	283
1890	120	SHAKHTOR	132	AL KARAK	FOOU	137	163	193	225	259	296
1480	184	SIRFA	3338	AL KARAK	FOOU	3,458	4,127	4,878	5,683	6,556	7,490

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		OTHERS	291	AL KARAK	FOOU	301	360	425	495	572	653
		SUB TOTAL	10,268	AL KARAK	FOOU	10,638	12,695	15,005	17,480	20,166	23,039
		GRAND TOTAL	169,684	AL KARAK		175,793	209,797	247,972	288,865	333,252	380,737
1026	120	ABU GHARA	0	AL MAFRAQ	AL MAFRAQ	0	0	0	0	0	0
986	120	ABU TANTOUR	0	AL MAFRAQ	AL MAFRAQ	0	0	0	0	0	0
1705	120	AD DAJANIYYA	2386	AL MAFRAQ	AL MAFRAQ	2,472	2,950	3,487	4,062	4,686	5,354
981	120	AD DANDANIYYA	196	AL MAFRAQ	AL MAFRAQ	203	242	286	334	385	440
1729	120	AD DUOMUSA	483	AL MAFRAQ	AL MAFRAQ	500	597	706	822	949	1,084
180	140	AD DURAYZI	196	AL MAFRAQ	AL MAFRAQ	203	242	286	334	385	440
987	120	AL AMAQA	0	AL MAFRAQ	AL MAFRAQ	0	0	0	0	0	0
2358	184	AL BALI	2549	AL MAFRAQ	AL MAFRAQ	2,641	3,152	3,725	4,339	5,006	5,719
180	155	AL BUWAYDA	0	AL MAFRAQ	AL MAFRAQ	0	0	0	0	0	0
983	120	AL BUWAYDA AL	347	AL MAFRAQ	AL MAFRAQ	359	429	507	591	681	779
1698	120	AL BUWAYDA ASH 895		AL MAFRAQ	AL MAFRAQ	927	1,107	1,308	1,524	1,758	2,008
988	120	AL GHADIR (AL AB 391		AL MAFRAQ	AL MAFRAQ	405	483	571	666	768	877
984	184	AL HAMRA	4586	AL MAFRAQ	AL MAFRAQ	4,751	5,670	6,702	7,807	9,007	10,290
159	140	AL HURSH	833	AL MAFRAQ	AL MAFRAQ	863	1,030	1,217	1,418	1,636	1,869
1701	120	AL KARM	192	AL MAFRAQ	AL MAFRAQ	199	237	281	327	377	431
1709	120	AL KAWM AL AHM 1585		AL MAFRAQ	AL MAFRAQ	1,642	1,960	2,316	2,698	3,113	3,556
1024	120	AL KHALDIYA AS	1888	AL MAFRAQ	AL MAFRAQ	1,956	2,334	2,759	3,214	3,708	4,236
1025	120	AL KHALDIYA	7810	AL MAFRAQ	AL MAFRAQ	8,091	9,656	11,413	13,296	15,338	17,524
1695	120	AL KHANASIRI	495	AL MAFRAQ	AL MAFRAQ	513	612	723	843	972	1,111
978	184	AL MAHRUKA	3458	AL MAFRAQ	AL MAFRAQ	3,582	4,275	5,053	5,887	6,791	7,759
1429	120	AL MADWAR	290	AL MAFRAQ	AL MAFRAQ	300	359	424	494	570	651
969	184	AL MAFRAQ	32193	AL MAFRAQ	AL MAFRAQ	33,352	39,803	47,046	54,804	63,226	72,235
1008	120	AL MAMARIYYA	835	AL MAFRAQ	AL MAFRAQ	865	1,032	1,220	1,421	1,640	1,874
985	120	AL MANSOURA	1714	AL MAFRAQ	AL MAFRAQ	1,776	2,119	2,505	2,918	3,366	3,846
163	140	AL MAZZA	699	AL MAFRAQ	AL MAFRAQ	724	864	1,022	1,190	1,373	1,568
983	120	AL MIRQAB	0	AL MAFRAQ	AL MAFRAQ	0	0	0	0	0	0
1723	120	AL MUFRADAT	606	AL MAFRAQ	AL MAFRAQ	628	749	886	1,032	1,190	1,360
977	120	AL MUSHAYRIFA	143	AL MAFRAQ	AL MAFRAQ	148	177	209	243	281	321
247	140	AL MUSHAYRIFA	2206	AL MAFRAQ	AL MAFRAQ	2,285	2,727	3,224	3,755	4,332	4,950
987	120	AL MUSHRIF	438	AL MAFRAQ	AL MAFRAQ	454	542	640	746	860	983
1005	120	AL QASABA	0	AL MAFRAQ	AL MAFRAQ	0	0	0	0	0	0
976	120	AL UKAYDIR	585	AL MAFRAQ	AL MAFRAQ	606	723	855	996	1,149	1,313
1004	125	AMRA WA UMAYR	1903	AL MAFRAQ	AL MAFRAQ	1,423	1,699	2,008	2,339	2,698	3,083
986	120	AN NAHDA	781	AL MAFRAQ	AL MAFRAQ	1,972	2,353	2,781	3,240	3,737	4,270
161	140	AR RAHMAT	102	AL MAFRAQ	AL MAFRAQ	106	126	149	174	200	229
2361	184	AR RAWDA AL GH 3306		AL MAFRAQ	AL MAFRAQ	3,425	4,088	4,831	5,628	6,493	7,418
2362	184	AR RAWDA ASH S	0	AL MAFRAQ	AL MAFRAQ	0	0	0	0	0	0
2364	184	AS SAFAWI	1374	AL MAFRAQ	AL MAFRAQ	1,423	1,699	2,008	2,339	2,698	3,083
989	120	AS SAHAH	225	AL MAFRAQ	AL MAFRAQ	233	278	329	383	442	505
1010	120	AS SAIDIYYA	661	AL MAFRAQ	AL MAFRAQ	685	817	966	1,125	1,298	1,483
1694	120	AS SUWAYTIMA	747	AL MAFRAQ	AL MAFRAQ	774	924	1,092	1,272	1,467	1,676
1704	120	AYDUN BANI HAS	1605	AL MAFRAQ	AL MAFRAQ	1,663	1,984	2,346	2,732	3,152	3,601
1687	120	AYN	224	AL MAFRAQ	AL MAFRAQ	232	277	327	381	440	503



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162	140	AZ ZAFARANA	77	AL MAFAQ	AL MAFA 80	95	113	131	151	173
971	164	AZ ZATARI	3251	AL MAFAQ	AL MAFA 3,368	4,020	4,751	5,534	6,385	7,295
989	120	AZ ZUBAYDIYYA	755	AL MAFAQ	AL MAFA 782	933	1,103	1,285	1,483	1,694
986	164	BURAYQA	598	AL MAFAQ	AL MAFA 620	739	874	1,018	1,174	1,342
1707	120	BUWAYDAT AL UL	550	AL MAFAQ	AL MAFA 570	680	804	936	1,080	1,234
1827	120	DAHL	396	AL MAFAQ	AL MAFA 410	490	579	674	778	889
990	120	DAYR AL WARAQ	269	AL MAFAQ	AL MAFA 279	333	393	458	528	604
984	120	FA	1121	AL MAFAQ	AL MAFA 1,161	1,386	1,638	1,908	2,202	2,515
1003	120	HAMAMAT AL UL	161	AL MAFAQ	AL MAFA 611	729	862	1,004	1,159	1,324
1898	120	HAMAMAT AL UM	590	AL MAFAQ	AL MAFA 95	114	134	157	181	206
1700	120	HAMID	92	AL MAFAQ	AL MAFA 1,360	1,623	1,919	2,235	2,579	2,946
1693	164	HAWSHA	1313	AL MAFAQ	AL MAFA 579	691	817	952	1,098	1,254
254	170	HAY ABU AL HYA	559	AL MAFAQ	AL MAFA 942	1,124	1,328	1,547	1,785	2,040
1690	164	HAYYAN AL MUS	909	AL MAFAQ	AL MAFA 396	472	558	650	750	857
1698	120	HUWAYYA	382	AL MAFAQ	AL MAFA 161	192	227	264	304	348
1428	120	HUWAYSHAN	155	AL MAFAQ	AL MAFA 24	28	34	39	45	52
1702	120	KHATLAH	23	AL MAFAQ	AL MAFA 0	0	0	0	0	0
973	164	MANSHYAT AS S	0	AL MAFAQ	AL MAFA 1,619	1,932	2,284	2,661	3,070	3,507
2425	164	MANSHYAT AS S	1563	AL MAFAQ	AL MAFA 5,777	6,894	8,149	9,492	10,951	12,511
967	164	MANSHYET BAN	5576	AL MAFAQ	AL MAFA 108	129	152	177	204	233
1724	120	MUNTYTEH	104	AL MAFAQ	AL MAFA 392	467	552	643	742	848
1703	120	NADRA	378	AL MAFAQ	AL MAFA 172	205	243	283	326	372
1727	120	RASM AL HISA	166	AL MAFAQ	AL MAFA 244	292	345	402	463	530
165	140	RAWDAT AR RUW	236	AL MAFAQ	AL MAFA 2,684	3,204	3,786	4,411	5,089	5,814
970	164	REHAB	2591	AL MAFAQ	AL MAFA 0	0	0	0	0	0
1708	120	RUM SABA	0	AL MAFAQ	AL MAFA 55	66	77	90	104	119
1706	120	SURRA	53	AL MAFAQ	AL MAFA 312	372	440	512	591	675
968	164	TAYYIB ISEM	301	AL MAFAQ	AL MAFA 1,423	1,699	2,008	2,339	2,698	3,083
974	164	THUGHRAT AL JU	1374	AL MAFAQ	AL MAFA 1,819	2,171	2,566	2,989	3,449	3,940
2359	164	UNM AL JMAL	1756	AL MAFAQ	AL MAFA 208	249	294	342	395	451
164	140	UNM AL LOULOU	201	AL MAFAQ	AL MAFA 818	977	1,154	1,345	1,552	1,773
991	120	UNM AN NAAM A	790	AL MAFAQ	AL MAFA 1,056	1,260	1,489	1,735	2,001	2,286
992	120	UNM AN NAAM A	1019	AL MAFAQ	AL MAFA 1,857	2,216	2,619	3,051	3,519	4,021
1728	120	UNM AS SARB	1792	AL MAFAQ	AL MAFA 724	864	1,022	1,190	1,373	1,568
1828	120	UNM BTIYMA	699	AL MAFAQ	AL MAFA 37	45	53	61	71	81
1014	120	UNM HASMASA	36	AL MAFAQ	AL MAFA 94	113	133	155	179	204
158	150	UNM KHARROUB	91	AL MAFAQ	AL MAFA 0	0	0	0	0	0
1426	120	UNM RUMMANA	0	AL MAFAQ	AL MAFA 1,023	1,220	1,442	1,680	1,938	2,215
		OTHERS	987	AL MAFAQ	AL MAFA 113,795	135,807	160,519	186,990	215,723	246,461
		SUB TOTAL	109,841	AL MAFAQ	AR RWEYS 0	0	0	0	0	0
1028	120	AL ARITIN	0	AL MAFAQ	AR RWEYS 96	115	136	158	183	209
7	140	AL FAYDA	93	AL MAFAQ	AR RWEYS 717	856	1,011	1,178	1,359	1,553
252	140	AL KARAMA	692	AL MAFAQ	AR RWEYS 217	258	305	356	410	469
5	140	AL REESHA AL GH	209	AL MAFAQ	AR RWEYS 79	94	111	129	149	171
4	140	AR REESHA ASH S	76	AL MAFAQ	AR RWEYS 157	188	222	259	299	341
3	140	AR RUKBAN	152	AL MAFAQ	AR RWEYS 3,969	4,737	5,599	6,522	7,524	8,596
27	164	AR RWEYSHUD	3831	AL MAFAQ						

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26	164	MANSHYET AL GH	1093	AL MAFAQ	AR RWEYS 1,132	1,351	1,597	1,861	2,147	2,452
		OTHERS	4303	AL MAFAQ	AR RWEYS 4,458	5,320	6,288	7,325	8,451	9,655
		SUB TOTAL	10,449	AL MAFAQ	AR RWEYS 10,825	12,919	15,270	17,788	20,521	23,445
1021	120	AL BUSTAN	446	AL MAFAQ	BAL AMA 462	551	652	759	876	1,001
36	140	AL HASAB	58	AL MAFAQ	BAL AMA 60	72	85	99	114	130
40	140	AL KHAN	20	AL MAFAQ	BAL AMA 21	25	29	34	39	45
1687	120	AL KHIRBA AS SA	1886	AL MAFAQ	BAL AMA 1,954	2,332	2,756	3,211	3,704	4,232
2488	120	AL MARAJEM	146	AL MAFAQ	BAL AMA 151	181	213	249	287	328
246	140	AL MAZRA A	1397	AL MAFAQ	BAL AMA 1,447	1,727	2,042	2,378	2,744	3,135
1002	120	AL QADAM	169	AL MAFAQ	BAL AMA 175	209	247	288	332	379
41	140	AN NIMRA	185	AL MAFAQ	BAL AMA 192	229	270	315	363	415
223	140	AN NUZHA	626	AL MAFAQ	BAL AMA 649	774	915	1,066	1,229	1,405
262	140	ATH THAHIRIYYA	299	AL MAFAQ	BAL AMA 310	370	437	509	587	671
1023	120	AZ ZNAYYA	1285	AL MAFAQ	BAL AMA 1,331	1,589	1,878	2,188	2,524	2,883
2404	164	BAL AMA	5332	AL MAFAQ	BAL AMA 5,524	6,592	7,792	9,077	10,472	11,964
1022	120	HAMNANA	0	AL MAFAQ	BAL AMA 0	0	0	0	0	0
1018	120	HAMNANA AL JAD	219	AL MAFAQ	BAL AMA 227	271	320	373	430	491
1688	120	HAYYAN RUWAYB	796	AL MAFAQ	BAL AMA 825	984	1,163	1,355	1,563	1,786
1015	120	HAYYAN RUWAYB	946	AL MAFAQ	BAL AMA 980	1,170	1,382	1,610	1,858	2,123
264	160	UMM AS SUWAYNI	121	AL MAFAQ	BAL AMA 125	150	177	206	238	271
		OTHERS	183	AL MAFAQ	BAL AMA 190	226	267	312	359	411
		SUB TOTAL	14,114	AL MAFAQ	BAL AMA 14,622	17,451	20,626	24,027	27,719	31,669
77	140	ABU AL FARTH	612	AL MAFAQ	SABHA 634	757	894	1,042	1,202	1,373
953	164	AD DAFYANEH	1141	AL MAFAQ	SABHA 1,182	1,411	1,667	1,942	2,241	2,560
81	140	AL AQIB	702	AL MAFAQ	SABHA 727	868	1,026	1,195	1,379	1,575
78	140	AL ASHRAFIYYA	632	AL MAFAQ	SABHA 655	781	924	1,076	1,241	1,418
1027	120	AL BISHRIYYA	706	AL MAFAQ	SABHA 731	873	1,032	1,202	1,387	1,584
1016	120	AL BUSTANA	401	AL MAFAQ	SABHA 415	496	586	683	788	900
1017	120	AL HAMIDIYYA	840	AL MAFAQ	SABHA 870	1,039	1,228	1,430	1,650	1,885
1000	120	AL HUSAYNTIYYA	70	AL MAFAQ	SABHA 73	87	102	119	137	157
79	140	AL JAD A	36	AL MAFAQ	SABHA 37	45	53	61	71	81
1006	120	AL JUBAYYA	646	AL MAFAQ	SABHA 669	799	944	1,100	1,269	1,449
250	140	AL MANARA	914	AL MAFAQ	SABHA 947	1,130	1,336	1,556	1,795	2,051
245	140	AL MANSOURA	42	AL MAFAQ	SABHA 44	52	61	71	82	94
952	164	AL MKEFTEH	1622	AL MAFAQ	SABHA 1,680	2,005	2,370	2,761	3,186	3,639
1009	120	AL MUNAYSA	227	AL MAFAQ	SABHA 235	281	332	386	446	509
1012	120	AR REAFIYYAT	604	AL MAFAQ	SABHA 626	747	883	1,028	1,186	1,355
209	140	AS SA AADA	547	AL MAFAQ	SABHA 567	676	799	931	1,074	1,227
1691	120	AS SALHIYYA	1043	AL MAFAQ	SABHA 1,081	1,290	1,524	1,776	2,048	2,340
1692	120	DAYR AL KAHF	913	AL MAFAQ	SABHA 946	1,129	1,334	1,554	1,793	2,049
984	120	HAMRA AS SUHAY	188	AL MAFAQ	SABHA 195	232	275	320	369	422
86	140	HULAYWAT AL M	558	AL MAFAQ	SABHA 578	690	815	950	1,096	1,252
85	140	KAWM AL RAFF	407	AL MAFAQ	SABHA 422	503	595	693	799	913
1728	120	KHISHA AL RAFF	159	AL MAFAQ	SABHA 165	197	232	271	312	357
87	140	KHISHA AL QINN	0	AL MAFAQ	SABHA 0	0	0	0	0	0
210	160	KHISHAYAT AL AR	0	AL MAFAQ	SABHA 0	0	0	0	0	0

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1001	120	KHUSHA SILITIN	846	AL MAFRAQ	SABHA	876	1,046	1,236	1,440	1,662	1,898
1007	120	MANSHIYAT AL Q 236		AL MAFRAQ	SABHA	244	292	345	402	463	530
1725	120	MANSHIYAT AL Q 185		AL MAFRAQ	SABHA	192	229	270	315	363	415
2363	164	NAIFYA	698	AL MAFRAQ	SABHA	723	863	1,020	1,188	1,371	1,566
1011	120	QASIM	498	AL MAFRAQ	SABHA	516	616	728	848	978	1,117
1682	120	RAHBAT RAKAD	557	AL MAFRAQ	SABHA	577	689	814	948	1,094	1,250
951	164	SABHA	3496	AL MAFRAQ	SABHA	3,622	4,322	5,109	5,951	6,866	7,844
986	120	SABI SYR	978	AL MAFRAQ	SABHA	1,013	1,209	1,429	1,665	1,921	2,194
84	140	TALL AR RMAH	192	AL MAFRAQ	SABHA	199	237	281	327	377	431
954	164	UM AL QUTAYN	2961	AL MAFRAQ	SABHA	3,068	3,661	4,327	5,041	5,815	6,644
83	140	UMM HUSAYN	129	AL MAFRAQ	SABHA	134	159	189	220	253	289
1013	120	ZAMLAT AL AMR	404	AL MAFRAQ	SABHA	419	500	590	688	793	906
		OTHERS	1181	AL MAFRAQ	SABHA	1,224	1,460	1,726	2,011	2,319	2,650
		SUB TOTAL	25,840	AL MAFRAQ	SABHA	26,770	31,949	37,762	43,989	50,749	57,980
1686	120	AL HARFOUSHIYY	42	AL MAFRAQ	SAMA AS S 44		52	61	71	82	94
982	120	AL MATAJIA	464	AL MAFRAQ	SAMA AS S 481		574	678	790	911	1,041
960	164	JABER AS SARHAN	1167	AL MAFRAQ	SAMA AS S 1,209		1,443	1,705	1,987	2,292	2,619
979	120	MANSHIYAT AL 317		AL MAFRAQ	SAMA AS S 328		392	463	540	623	711
961	164	MGHAYER AS SRH 4124		AL MAFRAQ	SAMA AS S 4,272		5,099	6,027	7,021	8,099	9,253
962	164	MGHAYER AS SRH 0		AL MAFRAQ	SAMA AS S 0		0	0	0	0	0
1684	120	RUBA AS SARHAN	665	AL MAFRAQ	SAMA AS S 689		822	972	1,132	1,306	1,492
963	164	SAMA AS SARHAN	3090	AL MAFRAQ	SAMA AS S 3,201		3,820	4,516	5,260	6,069	6,933
2491	140	SUMAYYA	273	AL MAFRAQ	SAMA AS S 283		338	399	465	536	613
1685	125	ZAMLAT AT TURA 394		AL MAFRAQ	SAMA AS S 408		487	576	671	774	884
1019	120	MANSHIYAT AZ 0		AL MAFRAQ	SAMA AS S 0		0	0	0	0	0
		SUB TOTAL	10,536	AL MAFRAQ	SAMA AS S 10,915		13,027	15,397	17,936	20,692	23,641
		GRAND TOTAL	170,780	AL MAFRAQ		176,928	211,152	249,573	290,731	335,404	383,196
972	164	ABU HULAYLIFA	217	AMMAN	AL JIZA	225	268	317	369	426	487
1687	120	AL GABIYYA	154	AMMAN	AL JIZA	160	190	225	262	302	346
1949	120	AL HAMAM	337	AMMAN	AL JIZA	349	417	492	574	662	756
145	160	AL HARY	0	AMMAN	AL JIZA	0	0	0	0	0	0
1344	164	AL JIZA	3356	AMMAN	AL JIZA	3,477	4,149	4,904	5,713	6,591	7,530
2400	120	AL KHANANA	81	AMMAN	AL JIZA	84	100	118	138	159	182
1244	164	AL LABAN	1268	AMMAN	AL JIZA	1,314	1,568	1,853	2,159	2,490	2,845
1525	120	AL MANARA	189	AMMAN	AL JIZA	196	234	276	322	371	424
1883	120	AL MUSAYTIBA	2255	AMMAN	AL JIZA	2,336	2,788	3,295	3,839	4,429	5,060
1801	120	AL MUSHATTA	92	AMMAN	AL JIZA	95	114	134	157	181	206
2387	120	AL MUSHAYRIFA	410	AMMAN	AL JIZA	425	507	599	698	805	920
2386	130	AL QANATER	125	AMMAN	AL JIZA	130	155	183	213	245	280
1318	164	AL QASTAL	1964	AMMAN	AL JIZA	2,035	2,428	2,870	3,343	3,857	4,407
1669	120	AL QUNAYTRA	316	AMMAN	AL JIZA	327	391	462	538	621	709
1879	120	AL YAHUN	180	AMMAN	AL JIZA	186	223	263	306	354	404
1363	164	AN NASIRIYYA	312	AMMAN	AL JIZA	323	386	456	531	613	700
2369	120	AR RAMA	797	AMMAN	AL JIZA	826	985	1,165	1,357	1,565	1,788
1034	120	AS SIWAQA	123	AMMAN	AL JIZA	127	152	180	209	242	276

Population Projections

2401	120	ASH SHAMMOUT	657	AMMAN	AL JIZA	681	812	960	1,118	1,290	1,474
1341	164	AT TALBIYYA	4422	AMMAN	AL JIZA	4,581	5,467	6,462	7,528	8,685	9,922
1675	120	AT TUNAYB	90	AMMAN	AL JIZA	93	111	132	153	177	202
2380	130	ATH THAMAD	119	AMMAN	AL JIZA	123	147	174	203	234	267
1882	120	ATH THURAYYA	54	AMMAN	AL JIZA	56	67	79	92	106	121
1364	164	AZ ZAFARAN	480	AMMAN	AL JIZA	497	593	701	817	943	1,077
1305	164	AZ ZAYTONA	308	AMMAN	AL JIZA	319	381	450	524	605	691
1308	164	AZ ZAYTONA	0	AMMAN	AL JIZA	0	0	0	0	0	0
2393	129	AZ ZMEYLA	1199	AMMAN	AL JIZA	1,242	1,482	1,752	2,041	2,355	2,690
563	164	DAB AH	263	AMMAN	AL JIZA	272	325	384	448	517	590
1367	164	DULATAT AL MU	406	AMMAN	AL JIZA	421	502	593	691	797	911
1871	120	HAWWARA	338	AMMAN	AL JIZA	350	418	494	575	664	758
1336	164	JALLUL	473	AMMAN	AL JIZA	490	585	691	805	929	1,061
1880	120	JAMIL	311	AMMAN	AL JIZA	322	385	454	529	611	698
1670	120	KHADRA	515	AMMAN	AL JIZA	534	637	753	877	1,011	1,156
2402	120	KHAN AZ ZABEYB	20	AMMAN	AL JIZA	21	25	29	34	39	45
1316	164	MANJA	540	AMMAN	AL JIZA	559	668	789	919	1,061	1,212
1319	164	MANJA	0	AMMAN	AL JIZA	0	0	0	0	0	0
1407	164	MAZAYER AL YA	0	AMMAN	AL JIZA	0	0	0	0	0	0
1873	120	NATAL	529	AMMAN	AL JIZA	548	654	773	901	1,039	1,187
1432	164	RAJM AL IQAB AL	104	AMMAN	AL JIZA	108	129	152	177	204	233
2396	130	RAJM AL IQAB AS	0	AMMAN	AL JIZA	0	0	0	0	0	0
2392	130	RAJM FHEYD	87	AMMAN	AL JIZA	90	108	127	148	171	195
2391	130	RUMEYL	297	AMMAN	AL JIZA	308	367	434	506	583	666
1881	120	SALYA	559	AMMAN	AL JIZA	579	691	817	952	1,098	1,254
1872	120	SAWFA	181	AMMAN	AL JIZA	188	224	265	308	355	406
1400	164	TAWR AL HASHSH	306	AMMAN	AL JIZA	317	378	447	521	601	687
1673	120	ULAYYAN	189	AMMAN	AL JIZA	196	234	276	322	371	424
1281	164	UMM AL AMAD	1208	AMMAN	AL JIZA	1,251	1,494	1,765	2,056	2,372	2,711
1368	164	UMM AL WALID	979	AMMAN	AL JIZA	1,014	1,210	1,431	1,667	1,923	2,197
1905	120	UMM AR RASAS	348	AMMAN	AL JIZA	361	430	509	592	683	781
1359	164	UMM QUSAYR	1524	AMMAN	AL JIZA	1,579	1,884	2,227	2,594	2,993	3,420
1360	164	UMM QUSAYR	0	AMMAN	AL JIZA	0	0	0	0	0	0
1870	120	UMM RUMANA	156	AMMAN	AL JIZA	162	193	228	266	306	350
1878	120	UMM RUQAYBA	109	AMMAN	AL JIZA	113	135	159	186	214	245
1371	164	URAYNIBA AL GH	786	AMMAN	AL JIZA	814	972	1,149	1,338	1,544	1,764
144	150	URAYNIBA ASH S	479	AMMAN	AL JIZA	496	592	700	815	941	1,075
1846	120	ZABAYER AL HAY	249	AMMAN	AL JIZA	258	308	364	424	489	559
1377	164	ZABAYER AL WAT	117	AMMAN	AL JIZA	121	145	171	199	230	263
1876	120	ZAYNAB	222	AMMAN	AL JIZA	230	274	324	378	436	498
1524	120	ZUWZYA	97	AMMAN	AL JIZA	100	120	142	165	191	218
		OTHERS	857	AMMAN	AL JIZA	888	1,060	1,252	1,459	1,683	1,923
		SUB TOTAL	31,754	AMMAN	AL JIZA	32,897	39,261	46,404	54,057	62,363	71,250
2376	120	ABU ALANDA	23995	AMMAN	AMMAN	24,859	29,667	35,066	40,848	47,125	53,840
228	140	ABU SAYYAH	566	AMMAN	AMMAN	586	700	827	964	1,112	1,270
1517	120	AL HUMMAR	0	AMMAN	AMMAN	0	0	0	0	0	0
973	120	AL JUBEHA	37165	AMMAN	AMMAN	38,503	45,951	54,312	63,269	72,990	83,391

Population Projections

1177	164	AL JWAYDEH	16739	AMMAN	17,342	20,696	24,462	28,496	32,875	37,559
1515	120	AL KAWM	0	AMMAN	0	0	0	0	0	0
1156	164	AL MUQABALAYN	20262	AMMAN	20,991	25,052	29,610	34,493	39,794	45,464
238	140	AL MUZAYYER	255	AMMAN	264	315	373	434	501	572
192	160	AL QASR	0	AMMAN	0	0	0	0	0	0
2375	120	AL QUWAYSIMA	25649	AMMAN	26,572	31,712	37,483	43,664	50,373	57,551
1201	164	AL UMYARI	0	AMMAN	0	0	0	0	0	0
1215	164	AL YADUDA	10595	AMMAN	10,976	13,100	15,483	18,037	20,808	23,773
1094	164	AMMAN	0	AMMAN	0	0	0	0	0	0
1095	164	AMMAN	0	AMMAN	0	0	0	0	0	0
1096	164	AMMAN	0	AMMAN	0	0	0	0	0	0
1097	164	AMMAN	0	AMMAN	0	0	0	0	0	0
1100	164	AMMAN	0	AMMAN	0	0	0	0	0	0
1102	164	AMMAN	0	AMMAN	0	0	0	0	0	0
1108	164	AMMAN	0	AMMAN	0	0	0	0	0	0
1109	164	AMMAN	0	AMMAN	0	0	0	0	0	0
1113	164	AMMAN	0	AMMAN	0	0	0	0	0	0
1114	164	AMMAN	0	AMMAN	0	0	0	0	0	0
1120	164	AMMAN	0	AMMAN	0	0	0	0	0	0
1128	164	AMMAN	0	AMMAN	0	0	0	0	0	0
1129	164	AMMAN	0	AMMAN	0	0	0	0	0	0
1133	164	AMMAN	0	AMMAN	0	0	0	0	0	0
1149	164	AMMAN	0	AMMAN	0	0	0	0	0	0
1150	164	AMMAN	0	AMMAN	0	0	0	0	0	0
2374	164	AMMAN	963490	AMMAN	998,176	1,191,258	1,408,019	1,640,219	1,892,251	2,161,876
2398	164	AMMAN	0	AMMAN	0	0	0	0	0	0
2399	164	AMMAN	0	AMMAN	0	0	0	0	0	0
2400	164	AMMAN	0	AMMAN	0	0	0	0	0	0
2401	164	AMMAN	0	AMMAN	0	0	0	0	0	0
502	164	ARAB AD DAJAH	0	AMMAN	0	0	0	0	0	0
1523	120	AS SALHIYYA	2209	AMMAN	2,289	2,731	3,228	3,761	4,338	4,957
1969	130	AT TAYBEH	4137	AMMAN	4,286	5,115	6,046	7,043	8,125	9,283
1832	164	ISKAN ABU NUSA	18822	AMMAN	19,500	23,271	27,506	32,042	36,966	42,233
1921	120	JAWA	8353	AMMAN	8,654	10,328	12,207	14,220	16,405	18,742
1518	120	KHILDA	0	AMMAN	0	0	0	0	0	0
1184	164	KHARIBET AS SOU	20573	AMMAN	21,314	25,436	30,065	35,023	40,404	46,162
1512	120	MARJ AL FARAS	0	AMMAN	0	0	0	0	0	0
2333	164	MARKA	0	AMMAN	0	0	0	0	0	0
2340	164	SABHA	0	AMMAN	0	0	0	0	0	0
1641	120	SHAFABADRAN	6502	AMMAN	6,736	8,039	9,502	11,069	12,770	14,589
1831	164	SUWAYLIH	53083	AMMAN	54,994	65,632	77,574	90,367	104,253	119,107
1851	120	TAB KURA	0	AMMAN	0	0	0	0	0	0
1676	120	TARIQ	26390	AMMAN	27,340	32,629	38,566	44,926	51,829	59,214
1835	164	TARIQ	0	AMMAN	0	0	0	0	0	0
2388	164	TARIQ	0	AMMAN	0	0	0	0	0	0
2389	164	TARIQ	0	AMMAN	0	0	0	0	0	0
1107	164	TIA AL ALI	35119	AMMAN	36,383	43,421	51,322	59,786	68,972	78,800

Population Projections

1110	164	TIA AL ALI	0	AMMAN	0	0	0	0	0	0
1093	164	UMM AS SUMMAQ	14814	AMMAN	15,347	18,316	21,649	25,219	29,094	33,240
1961	130	UMM NUWWARA	7834	AMMAN	8,116	9,686	11,448	13,336	15,386	17,578
1166	164	UMM QUSAYR	0	AMMAN	0	0	0	0	0	0
1173	164	UMM QUSAYR	0	AMMAN	0	0	0	0	0	0
1176	164	UMM QUSAYR	0	AMMAN	0	0	0	0	0	0
1514	120	UMM ZUWAYTINA	1895	AMMAN	1,963	2,343	2,769	3,226	3,722	4,252
56	140	WADI AL QITAR	261	AMMAN	270	323	381	444	513	586
224	140	WADI AL USH	109	AMMAN	113	135	159	186	214	245
1642	120	YALUZ	1161	AMMAN	1,203	1,435	1,697	1,976	2,280	2,605
1508	120	ZENAT AR RBOL	0	AMMAN	0	0	0	0	0	0
		OTHERS	64	AMMAN	66	79	94	109	126	144
		SUB TOTAL	1,300,042	AMMAN	1,346,844	1,607,370	1,899,847	2,213,156	2,553,223	2,917,031
536	164	ADH DHUHAYBA	1502	AMMAN	1,556	1,857	2,195	2,557	2,950	3,370
2410	129	AL FALEJ	53	AMMAN	55	66	77	90	104	119
526	164	AL FAYTSALIYYA	3171	AMMAN	3,285	3,921	4,634	5,398	6,228	7,115
541	164	AL HATIMIYYA	500	AMMAN	518	618	731	851	982	1,122
267	140	AL KUTEIFA	268	AMMAN	278	331	392	456	526	601
182	140	AL MATABBA	12	AMMAN	12	15	18	20	24	27
534	164	AL MUWAQQAR	2352	AMMAN	2,437	2,908	3,437	4,004	4,619	5,277
1179	155	AN NUQAYRA	1026	AMMAN	1,063	1,269	1,499	1,747	2,015	2,302
539	164	ATH THUHAYBA	1,044	AMMAN	1,118	1,366	1,615	1,881	2,170	2,479
268	140	AZ ZUBARA	31	AMMAN	32	38	45	53	61	70
1031	120	AZ ZUMAYLAT	361	AMMAN	374	446	528	615	709	810
2409	129	CHAZALA	150	AMMAN	155	185	219	255	295	337
2403	129	MAGHAYER AL M	1111	AMMAN	1,151	1,374	1,624	1,891	2,182	2,493
532	164	MANSHIYYAT AL	1105	AMMAN	1,145	1,366	1,615	1,881	2,170	2,479
1177	160	MISHASH	0	AMMAN	0	0	0	0	0	0
1238	164	RUM ASHAMI AL	2676	AMMAN	2,772	3,309	3,911	4,556	5,256	6,004
1944	120	RUM ASHAMI AS	370	AMMAN	383	457	541	630	727	830
1033	120	UNM BUTMAH	1153	AMMAN	1,195	1,426	1,685	1,963	2,264	2,587
		OTHERS	270	AMMAN	280	334	395	460	530	606
		SUB TOTAL	18,155	AMMAN	18,809	22,447	26,531	30,907	35,656	40,736
2388	130	ABU NAQLAH	569	AMMAN	589	704	832	969	1,117	1,277
1677	120	AL ADASIYYA	1215	AMMAN	1,259	1,502	1,776	2,068	2,386	2,726
72	150	AL AMRA	582	AMMAN	603	720	851	991	1,143	1,306
1942	120	AL BASSA	600	AMMAN	622	742	877	1,021	1,178	1,346
1185	164	AL BUNAYYAT AL	4128	AMMAN	4,587	5,475	6,471	7,538	8,696	9,936
2405	164	AL BUNAYYAT AS	0	AMMAN	0	0	0	0	0	0
2385	130	AL MANSOURA	1126	AMMAN	1,167	1,392	1,646	1,917	2,211	2,527
2389	130	AL UWEYLIYYA	222	AMMAN	230	274	324	378	436	498
1222	164	AR RAWDA	0	AMMAN	0	0	0	0	0	0
1226	164	AR RAWDA	3,660	AMMAN	3,777	4,031	4,764	5,550	6,402	7,315
1232	164	AR RAWDA	0	AMMAN	0	0	0	0	0	0
1234	164	AR RAWDA	0	AMMAN	0	0	0	0	0	0
2386	130	RII AAS	153	AMMAN	159	189	224	260	300	343

Population Projections

1221	164	DHIBAN	641	AMMAN	NAUR	664	793	937	1,091	1,259	1,438
1188	164	NAUR	12323	AMMAN	NAUR	12,767	15,236	18,009	20,978	24,202	27,650
1191	164	NAUR	0	AMMAN	NAUR	0	0	0	0	0	0
1208	164	NAUR	0	AMMAN	NAUR	0	0	0	0	0	0
1243	164	SAYL HISBAN	1312	AMMAN	NAUR	1,359	1,622	1,917	2,234	2,577	2,944
1210	164	SHATNAH	0	AMMAN	NAUR	0	0	0	0	0	0
1212	164	TURKI	975	AMMAN	NAUR	1,010	1,205	1,425	1,660	1,915	2,188
1230	164	TURKI	0	AMMAN	NAUR	0	0	0	0	0	0
2382	130	UNM AL QUTTIAY	1328	AMMAN	NAUR	1,376	1,642	1,941	2,261	2,608	2,980
1941	120	ZBOUD	0	AMMAN	NAUR	0	0	0	0	0	0
		OTHERS	189	AMMAN	NAUR	196	234	276	322	371	424
		SUB TOTAL	28,923	AMMAN	NAUR	29,964	35,760	42,267	49,238	56,803	64,897
511	164	AL ABDALITYYA	3090	AMMAN	SAHAB	3,201	3,820	4,516	5,260	6,069	6,933
2408	129	AL BAYDA	456	AMMAN	SAHAB	472	564	666	776	896	1,023
518	164	AL KHASHAFIYA /	2425	AMMAN	SAHAB	2,512	2,998	3,544	4,128	4,763	5,441
2407	129	AL MADONA	242	AMMAN	SAHAB	251	299	354	412	475	543
1909	120	AL MANAKHR	279	AMMAN	SAHAB	289	345	408	475	548	626
1174	164	AN NUZHA	6584	AMMAN	SAHAB	6,821	8,140	9,622	11,208	12,931	14,773
44	140	AR RAJIB	1613	AMMAN	SAHAB	1,671	1,994	2,357	2,746	3,168	3,619
2408	129	ARMADAN	17	AMMAN	SAHAB	18	21	25	29	33	38
2380	164	KHASHAFIYYAT A	511	AMMAN	SAHAB	529	632	747	870	1,004	1,147
1940	120	NAFE	432	AMMAN	SAHAB	448	534	631	735	848	969
2405	129	QAFUR	8	AMMAN	SAHAB	8	10	12	14	16	18
520	164	SAHAB INDUST. CI	32480	AMMAN	SAHAB	0	40,158	47,465	55,293	63,789	72,879
527	164	SAHAB	0	AMMAN	SAHAB	0	0	0	0	0	0
1678	120	SALIM	715	AMMAN	SAHAB	741	884	1,045	1,217	1,404	1,604
173	150	ZAMLET AL ALYA 22	0	AMMAN	SAHAB	23	27	32	37	43	49
		SUB TOTAL	48,874	AMMAN	SAHAB	50,633	60,428	71,423	83,202	95,986	109,663
974	120	ABU AS SOLIS	209	AMMAN	WADI AS SI 217	258	258	305	356	410	469
1988	130	AD DABBA	205	AMMAN	WADI AS SI 212	253	253	300	349	403	460
1664	120	AD DAYR	1214	AMMAN	WADI AS SI 1,258	1,501	1,501	1,774	2,067	2,384	2,724
1684	130	AL ALMANYIYA	302	AMMAN	WADI AS SI 313	373	373	441	514	593	678
1680	120	AL BAHATH	59	AMMAN	WADI AS SI 61	73	73	86	100	116	132
2383	130	AL BASSA	2979	AMMAN	WADI AS SI 3,086	3,683	3,683	4,353	5,071	5,851	6,684
1510	120	AL BUHAYRA	316	AMMAN	WADI AS SI 327	391	391	462	538	621	709
1974	130	AL GHROUS	1228	AMMAN	WADI AS SI 1,272	1,518	1,518	1,795	2,091	2,412	2,755
2379	164	AL HUDAYB	140	AMMAN	WADI AS SI 145	173	173	205	238	275	314
1971	130	AL KASHEF	174	AMMAN	WADI AS SI 180	215	215	254	296	342	390
193	160	AL MADAAQQ	0	AMMAN	WADI AS SI 0	0	0	0	0	0	0
1124	164	AL MAYSER (MAY	777	AMMAN	WADI AS SI 805	961	961	1,135	1,323	1,526	1,743
184	160	AL MU ATQ	0	AMMAN	WADI AS SI 0	0	0	0	0	0	0
1965	130	AL QASABAT	399	AMMAN	WADI AS SI 413	493	493	583	679	784	895
201	160	AL QURAYA	0	AMMAN	WADI AS SI 0	0	0	0	0	0	0
1968	130	AL QUSAYR	392	AMMAN	WADI AS SI 406	485	485	573	667	770	880
1973	130	AN NUBYR	671	AMMAN	WADI AS SI 695	830	830	981	1,142	1,318	1,506
2378	130	AR RABAHYA AS	968	AMMAN	WADI AS SI 1,003	1,197	1,197	1,415	1,648	1,901	2,172

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1976	130	AR RABAHYYA A	424	AMMAN	WADI AS SI 439	524	620	722	833	951	
1972	130	AR RAJAJA	354	AMMAN	WADI AS SI 367	438	517	603	695	794	
1140	164	AS SUWEISA / BA	782	AMMAN	WADI AS SI 810	967	1,143	1,331	1,536	1,755	
2381	130	AT TABAQA	328	AMMAN	WADI AS SI 340	406	479	558	644	736	
1970	130	ATH THIAGHRA	116	AMMAN	WADI AS SI 120	143	170	197	228	260	
1963	130	ATH THRA	1546	AMMAN	WADI AS SI 1,602	1,911	2,259	2,632	3,036	3,469	
1962	130	ATH THUHEYR	580	AMMAN	WADI AS SI 601	717	848	987	1,139	1,301	
1662	130	BILAL/BADER	536	AMMAN	WADI AS SI 555	663	783	912	1,053	1,203	
1943	120	DABOUQ	1737	AMMAN	WADI AS SI 1,800	2,148	2,538	2,957	3,411	3,897	
1663	120	IRAO AL AMIR	1448	AMMAN	WADI AS SI 1,500	1,790	2,116	2,465	2,844	3,249	
2380	130	KHEBET SARA	924	AMMAN	WADI AS SI 957	1,142	1,350	1,573	1,815	2,073	
1987	130	KHEBET WADI AS	205	AMMAN	WADI AS SI 212	253	300	349	403	460	
1164	164	MARJ AL HAMAM	16578	AMMAN	WADI AS SI 17,175	20,497	24,227	28,222	32,558	37,198	
1169	164	MARJ AL HAMAM	0	AMMAN	WADI AS SI 0	0	0	0	0	0	
52	140	UMAYSH	437	AMMAN	WADI AS SI 453	540	639	744	858	981	
1158	164	UMM ABHARA	1822	AMMAN	WADI AS SI 1,888	2,253	2,663	3,102	3,578	4,088	
2384	130	UMM AL QUHOUF	200	AMMAN	WADI AS SI 207	247	292	340	393	449	
1975	130	UMM AL USOUF	692	AMMAN	WADI AS SI 717	856	1,011	1,178	1,359	1,553	
1181	164	UMM AS SUMMAQ	2903	AMMAN	WADI AS SI 3,008	3,589	4,242	4,942	5,701	6,514	
2379	130	UMM FARWA	191	AMMAN	WADI AS SI 198	236	279	325	375	429	
1125	164	WADI AS SIR	87980	AMMAN	WADI AS SI 91,147	108,778	128,572	149,775	172,789	197,409	
1969	130	ZHIDA / BADER	539	AMMAN	WADI AS SI 558	666	788	918	1,059	1,209	
196	160	ARQOUB ABU RUH	0	AMMAN	WADI AS SI 0	0	0	0	0	0	
1948	120	DUBAIA	0	AMMAN	WADI AS SI 0	0	0	0	0	0	
1235	164	ISKAN AS SAYADL	0	AMMAN	WADI AS SI 0	0	0	0	0	0	
1939	120	UMM AL HEYRAN	0	AMMAN	WADI AS SI 890	1,062	1,255	1,462	1,687	1,927	
		OTHERS	859	AMMAN	WADI AS SI 890	1,062	1,255	1,462	1,687	1,927	
		SUB TOTAL	131,214	AMMAN	WADI AS S 135,938	162,233	191,753	223,375	257,698	294,418	
1251	164	AL AL	1991	AMMAN	UNM AL B 2,063	2,462	2,910	3,389	3,910	4,467	
1255	164	AL AL	0	AMMAN	UNM AL B 0	0	0	0	0	0	
1256	164	AL AL	0	AMMAN	UNM AL B 0	0	0	0	0	0	
1268	164	AS SAMIK	0	AMMAN	UNM AL B 0	0	0	0	0	0	
1274	164	AS SAMIK	1473	AMMAN	UNM AL B 1,526	1,821	2,153	2,508	2,893	3,305	
1277	164	AS SAMIK	0	AMMAN	UNM AL B 0	0	0	0	0	0	
1951	120	MASOUH	96	AMMAN	UNM AL B 99	119	140	163	189	215	
2377	164	UNM AL ASAKER	414	AMMAN	UNM AL B 429	512	605	705	813	929	
1241	164	UNM AL BASATEY	0	AMMAN	UNM AL B 0	0	0	0	0	0	
1246	164	UNM AL BASATEY	3378	AMMAN	UNM AL B 3,500	4,177	4,937	5,751	6,634	7,580	
1950	120	UNM AL BIRAK	892	AMMAN	UNM AL B 924	1,103	1,304	1,519	1,752	2,001	
1945	120	UNM AL KUNDOM	58	AMMAN	UNM AL B 60	72	85	99	114	130	
		SUB TOTAL	8,302	AMMAN	UNM AL B 8,601	10,265	12,132	14,133	16,305	18,628	
		GRAND TOTAL	1,567,264	AMMAN		1,937,763	2,290,358	2,668,067	3,078,035	3,516,623	
8	140	AL ALYA	134	AT TAFLAH	AL HASA	139	166	196	228	263	301
1556	125	AL HASA	8515	AT TAFLAH	AL HASA	8,822	10,528	12,444	14,496	16,723	19,106
1569	120	TURF AD DARAWIS	653	AT TAFLAH	AL HASA	677	807	954	1,112	1,282	1,465

Population Projections

	OTHERS	614	AT TAFILAH	AL HASA	636	759	897	1,045	1,206	1,378
	SUB TOTAL	9,916	AT TAFILAH	AL HASA	10,273	12,260	14,491	16,881	19,475	22,249
1559	120	ABIL	AT TAFILAH	AT TAFILAH	546	652	770	897	1,035	1,182
1560	120	ABOUR	AT TAFILAH	AT TAFILAH	16	19	22	26	29	34
1548	120	ABU BANNA	AT TAFILAH	AT TAFILAH	558	666	788	918	1,059	1,209
1545	120	AFRA	AT TAFILAH	AT TAFILAH	112	134	158	184	212	242
1544	164	AL AYN AL BAYY	AT TAFILAH	AT TAFILAH	6,786	8,098	9,572	11,151	12,864	14,697
1541	120	AL BURBAYTA	AT TAFILAH	AT TAFILAH	259	309	365	426	491	561
1555	120	AL EES	AT TAFILAH	AT TAFILAH	2,134	2,547	3,010	3,507	4,046	4,622
50	140	AL HARIR	AT TAFILAH	AT TAFILAH	11	14	16	19	22	25
51	140	AL LABAN	AT TAFILAH	AT TAFILAH	1	1	1	2	2	2
1562	120	AL MITAN	AT TAFILAH	AT TAFILAH	2	2	3	3	4	4
1558	120	AN NAMATAH	AT TAFILAH	AT TAFILAH	106	126	149	174	200	229
1554	120	ARAF	AT TAFILAH	AT TAFILAH	850	1,014	1,198	1,396	1,610	1,840
1561	120	AS SIL	AT TAFILAH	AT TAFILAH	111	132	156	182	210	240
2250	164	AT TAFILAH	AT TAFILAH	AT TAFILAH	21,601	25,779	30,470	35,494	40,948	46,783
2423	164	AT TAFILAH	AT TAFILAH	AT TAFILAH	0	0	0	0	0	0
1549	120	AYMAH	AT TAFILAH	AT TAFILAH	1,876	2,239	2,647	3,083	3,557	4,064
1547	120	DIBAA	AT TAFILAH	AT TAFILAH	86	103	121	141	163	186
2435	120	MAGADIL	AT TAFILAH	AT TAFILAH	213	226	267	312	359	411
1544	120	MAKHFAR ASH SH	AT TAFILAH	AT TAFILAH	508	555	606	651	702	753
1557	120	RHAB	AT TAFILAH	AT TAFILAH	1,390	1,659	1,961	2,285	2,636	3,011
1551	120	RUWAYM	AT TAFILAH	AT TAFILAH	185	221	262	305	352	402
1553	120	SHAYDHAM	AT TAFILAH	AT TAFILAH	638	762	900	1,049	1,210	1,382
1552	120	SINFIH	AT TAFILAH	AT TAFILAH	203	242	286	334	385	440
	120	SUWAYMI	AT TAFILAH	AT TAFILAH	390	465	549	640	738	844
	OTHERS	376	AT TAFILAH	AT TAFILAH	38,771	46,271	54,690	63,710	73,499	83,972
	SUB TOTAL	37,424	AT TAFILAH	AT TAFILAH	0	0	0	0	0	0
27	140	ADH DHAHL	AT TAFILAH	BUSAYRAH	24	28	34	39	45	52
1571	120	AL QADISIYYA	AT TAFILAH	BUSAYRAH	5,136	6,130	7,245	8,440	9,737	11,125
1567	120	AR RASHADIYYA	AT TAFILAH	BUSAYRAH	774	924	1,092	1,272	1,467	1,676
1566	120	AR RAWATH	AT TAFILAH	BUSAYRAH	179	214	253	295	340	388
1564	120	BUSAYRAH	AT TAFILAH	BUSAYRAH	6,113	7,296	8,624	10,046	11,589	13,241
1570	120	DANA	AT TAFILAH	BUSAYRAH	204	244	288	335	387	442
1565	120	GHARANDAL	AT TAFILAH	BUSAYRAH	2,666	3,181	3,760	4,380	5,053	5,773
1568	120	LAHDHA	AT TAFILAH	BUSAYRAH	0	0	0	0	0	0
1563	120	UMM SARAB	AT TAFILAH	BUSAYRAH	307	366	433	504	581	664
	OTHERS	296	AT TAFILAH	BUSAYRAH	107	127	151	175	202	231
	SUB TOTAL	103	AT TAFILAH	BUSAYRAH	15,510	18,510	21,878	25,486	29,402	33,592
	GRAND TOTAL	62,311	AT TAFILAH	AT TAFILAH	64,554	77,041	91,060	106,077	122,376	139,813
1717	120	ABU AZ ZIGHAN	AZ ZARQA	AZ ZARQA	838	1,000	1,182	1,377	1,589	1,815
1710	120	AD DUHAYTHIM	AZ ZARQA	AZ ZARQA	191	227	269	313	361	413
975	164	AD DULAYL	AZ ZARQA	AZ ZARQA	15,998	19,092	22,567	26,288	30,327	34,649
976	164	AD DULAYL	AZ ZARQA	AZ ZARQA	0	0	0	0	0	0

Population Projections

	OTHERS	614	AT TAFILAH	AL HASA	636	759	897	1,045	1,206	1,378
	SUB TOTAL	9,916	AT TAFILAH	AL HASA	10,273	12,260	14,491	16,881	19,475	22,249
977	164	AD DULAYL	AZ ZARQA	AZ ZARQA	0	0	0	0	0	0
1864	130	AL HALLABAT AL	AZ ZARQA	AZ ZARQA	1,566	1,869	2,210	2,574	2,969	3,393
2365	164	AL HALLABAT AS	AZ ZARQA	AZ ZARQA	2,404	2,868	3,390	3,950	4,556	5,206
981	164	AL HASHIMYYA	AZ ZARQA	AZ ZARQA	0	0	0	0	0	0
982	164	AL HASHIMYYA A	AZ ZARQA	AZ ZARQA	0	0	0	0	0	0
983	164	AL HASHIMYYA B	AZ ZARQA	AZ ZARQA	0	0	0	0	0	0
2341	164	AL HASHIMYYA	AZ ZARQA	AZ ZARQA	13,507	16,120	19,053	22,196	25,606	29,255
986	164	AL MUSHAYRA	AZ ZARQA	AZ ZARQA	41,939	50,052	59,159	68,915	79,505	90,833
2347	164	AR RUHAYL	AZ ZARQA	AZ ZARQA	153	183	216	252	291	332
985	164	AR RUSAYFA	AZ ZARQA	AZ ZARQA	135,851	162,129	191,630	223,232	257,533	294,229
1659	120	ASH SHKHOUT	AZ ZARQA	AZ ZARQA	10,116	12,072	14,269	16,622	19,176	21,908
1028	120	AT TAFIL AL GHA	AZ ZARQA	AZ ZARQA	354	423	500	582	672	767
1952	120	AT TAFIL AL SH	AZ ZARQA	AZ ZARQA	0	0	0	0	0	0
206	160	AWAJAN	AZ ZARQA	AZ ZARQA	0	0	0	0	0	0
2351	164	AZ ZARQA	AZ ZARQA	AZ ZARQA	0	0	0	0	0	0
2352	164	AZ ZARQA	AZ ZARQA	AZ ZARQA	0	0	0	0	0	0
2353	164	AZ ZARQA	AZ ZARQA	AZ ZARQA	0	0	0	0	0	0
2354	164	AZ ZARQA	AZ ZARQA	AZ ZARQA	0	0	0	0	0	0
2355	164	AZ ZARQA	AZ ZARQA	AZ ZARQA	0	0	0	0	0	0
2356	164	AZ ZARQA	AZ ZARQA	AZ ZARQA	356,927	425,969	503,478	586,508	676,629	773,042
1718	120	DAWQARA	AZ ZARQA	AZ ZARQA	1,401	1,672	1,976	2,302	2,655	3,034
1720	120	GHARISA AL JADI	AZ ZARQA	AZ ZARQA	579	691	817	952	1,098	1,254
979	164	ISKAN AL HASHIM	AZ ZARQA	AZ ZARQA	6,143	7,332	8,666	10,095	11,646	13,306
54	140	JURAYBA	AZ ZARQA	AZ ZARQA	1,392	1,662	1,964	2,288	2,640	3,016
74	150	KHAW	AZ ZARQA	AZ ZARQA	544	649	767	894	1,031	1,178
2339	164	MUKHAYYAM SH	AZ ZARQA	AZ ZARQA	37,522	44,780	52,928	61,657	71,131	81,266
1719	120	QASR AL HALLAB	AZ ZARQA	AZ ZARQA	285	340	402	468	540	617
228	140	SAYEH AD DIYAB	AZ ZARQA	AZ ZARQA	165	197	232	271	312	357
225	150	SHOWMAR	AZ ZARQA	AZ ZARQA	1,662	1,983	2,344	2,731	3,150	3,599
1722	120	UNM AS SLEIH	AZ ZARQA	AZ ZARQA	1,000	1,193	1,410	1,643	1,895	2,165
	OTHERS	965	AZ ZARQA	AZ ZARQA	630,537	752,504	889,430	1,036,108	1,195,314	1,365,633
	SUB TOTAL	608,626	AZ ZARQA	AZ ZARQA	0	0	0	0	0	0
2412	129	AL AZRAQ AL JAN	AZRAQ	AZRAQ	1,745	2,082	2,461	2,867	3,307	3,779
2368	164	AL AZRAQ ASH SH	AZRAQ	AZRAQ	4,414	5,268	6,227	7,254	8,368	9,561
172	160	AL HAZEM	AZRAQ	AZRAQ	0	0	0	0	0	0
2415	129	AL UMARI	AZRAQ	AZRAQ	116	138	164	191	220	251
25	140	AYN AL BAYDA	AZRAQ	AZRAQ	396	472	558	650	750	857
2413	129	QASR AMRA	AZRAQ	AZRAQ	49	58	69	80	92	105
	OTHERS	1477	AZRAQ	AZRAQ	1,530	1,826	2,158	2,514	2,901	3,314
	SUB TOTAL	7,963	AZRAQ	AZRAQ	8,259	9,845	11,637	13,556	15,639	17,867
1483	120	ABU KHUSHAYBA	BEEREYN	BEEREYN	150	179	212	247	285	325
1483	120	AL ALOUK	BEEREYN	BEEREYN	436	521	615	717	827	945
185	140	AL BIRA	BEEREYN	BEEREYN	83	99	117	136	157	180
1843	120	AL KAMSHA	BEEREYN	BEEREYN	774	924	1,092	1,272	1,467	1,676
235	140	AL KHALLA	BEEREYN	BEEREYN	84	100	118	138	159	182

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239	140	AL MAJASHA	28	AZ ZARQA	BEEREYN	29	35	41	48	55	63
1457	120	AL MAKHDHAT	0	AZ ZARQA	BEEREYN	0	0	0	0	0	0
1848	120	AL MASARRA	596	AZ ZARQA	BEEREYN	617	737	871	1,015	1,171	1,337
1716	120	AL QNTIYAH	388	AZ ZARQA	BEEREYN	402	480	567	661	762	871
234	140	AL UWEYLIYA	96	AZ ZARQA	BEEREYN	99	119	140	163	189	215
233	140	AR RIYAD	282	AZ ZARQA	BEEREYN	292	349	412	480	554	633
1849	120	AS SAHARA	69	AZ ZARQA	BEEREYN	71	85	101	117	136	155
1474	120	AT TAL	0	AZ ZARQA	BEEREYN	0	0	0	0	0	0
237	150	AYN AL HAWAYA	62	AZ ZARQA	BEEREYN	64	77	91	106	122	139
1712	120	BIRAYN	629	AZ ZARQA	BEEREYN	652	778	919	1,071	1,235	1,411
1489	120	HAWD UOLA	344	AZ ZARQA	BEEREYN	356	425	503	586	676	772
1845	120	MAQMISA	281	AZ ZARQA	BEEREYN	291	347	411	478	552	631
1711	120	MIRHIB	119	AZ ZARQA	BEEREYN	123	147	174	203	234	267
1850	120	RUM ASH SHAWK	363	AZ ZARQA	BEEREYN	376	449	530	618	713	814
1721	120	SARRUT	863	AZ ZARQA	BEEREYN	894	1,067	1,261	1,469	1,695	1,936
1715	120	TAWAHIN AL IDW	40	AZ ZARQA	BEEREYN	41	49	58	68	79	90
1493	120	UMM AL BIYAR	410	AZ ZARQA	BEEREYN	425	507	599	698	805	920
236	140	UMM AL FATAYER	100	AZ ZARQA	BEEREYN	104	124	146	170	196	224
1484	120	UMM AL MIKMAN	321	AZ ZARQA	BEEREYN	333	397	469	546	630	720
1452	120	UMM MUGHEYRA	0	AZ ZARQA	BEEREYN	0	0	0	0	0	0
1846	120	UMM RUMMANA	566	AZ ZARQA	BEEREYN	586	700	827	964	1,112	1,270
		OTHERS	323	AZ ZARQA	BEEREYN	335	399	472	550	634	725
		SUB TOTAL	7,354	AZ ZARQA	BEEREYN	7,619	9,092	10,747	12,519	14,443	16,501
		GRAND TOTAL	623,943	AZ ZARQA			771,442	911,814	1,062,183	1,225,396	1,400,002
1420	120	ABU HABIL	874	IRBID	AL AGHWA	905	1,081	1,277	1,488	1,716	1,961
88	140	ABU SIDO	2090	IRBID	AL AGHWA	2,165	2,584	3,054	3,558	4,105	4,690
1438	120	ABU UYAYDA	0	IRBID	AL AGHWA	0	0	0	0	0	0
93	160	ABU ZIYAD	0	IRBID	AL AGHWA	0	0	0	0	0	0
1404	120	ADH DHUHEYR	0	IRBID	AL AGHWA	0	0	0	0	0	0
1379	120	AL ADASHIYA	2030	IRBID	AL AGHWA	2,103	2,510	2,967	3,456	3,987	4,555
1394	120	AL ARAMISHA	0	IRBID	AL AGHWA	0	0	0	0	0	0
1398	120	AL AZIYA	0	IRBID	AL AGHWA	0	0	0	0	0	0
1434	120	AL BALAWNA	4434	IRBID	AL AGHWA	4,594	5,482	6,480	7,548	8,708	9,949
1387	120	AL BAQOURA	652	IRBID	AL AGHWA	675	806	953	1,110	1,280	1,463
1396	120	AL FIDDIYIN	579	IRBID	AL AGHWA	600	716	846	986	1,137	1,299
1405	120	AL HARRAWIYA	0	IRBID	AL AGHWA	0	0	0	0	0	0
1822	120	AL JASOURA	0	IRBID	AL AGHWA	0	0	0	0	0	0
1407	120	AL JURM	0	IRBID	AL AGHWA	0	0	0	0	0	0
1392	120	AL MADRASA	0	IRBID	AL AGHWA	0	0	0	0	0	0
1393	120	AL MANSIYYA	5446	IRBID	AL AGHWA	5,642	6,733	7,959	9,271	10,696	12,220
1411	120	AL MARAZZA	746	IRBID	AL AGHWA	773	922	1,090	1,270	1,465	1,674
1410	120	AL MASHARI	13096	IRBID	AL AGHWA	13,567	16,192	19,138	22,294	25,720	29,385
1408	120	AL MIDRAJ	0	IRBID	AL AGHWA	0	0	0	0	0	0
1414	120	AL QASEYB	0	IRBID	AL AGHWA	0	0	0	0	0	0
1419	120	AS SABIRA	24	IRBID	AL AGHWA	25	30	35	41	47	54
1391	120	AS SAKHINA	254	IRBID	AL AGHWA	263	314	371	432	499	570

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1400	120	ASH SHAYKH HUS	5905	IRBID	AL AGHWA	6,118	7,301	8,629	10,053	11,597	13,250
1388	120	ASH SHUNA ASHS	12640	IRBID	AL AGHWA	13,095	15,628	18,472	21,518	24,824	28,362
1403	120	AZ ZIMALIYA	1034	IRBID	AL AGHWA	1,071	1,278	1,511	1,760	2,031	2,320
84	160	HIMMAT GHOR AL	0	IRBID	AL AGHWA	0	0	0	0	0	0
90	164	KRAYMA	13852	IRBID	AL AGHWA	14,351	17,127	20,243	23,581	27,205	31,081
1416	120	KURKUMA	75	IRBID	AL AGHWA	78	93	110	128	147	168
91	160	MAATH	0	IRBID	AL AGHWA	0	0	0	0	0	0
1396	120	QULAY AT	0	IRBID	AL AGHWA	0	0	0	0	0	0
1406	120	SATL AL HIMMA	281	IRBID	AL AGHWA	291	347	411	478	552	631
1424	120	SULAYKHAT	596	IRBID	AL AGHWA	617	737	871	1,015	1,171	1,337
1409	120	TABAQIT FAHL	585	IRBID	AL AGHWA	606	723	855	996	1,149	1,313
82	160	TALL AL ARBAIN	0	IRBID	AL AGHWA	0	0	0	0	0	0
89	140	WADI AL YABIS	5266	IRBID	AL AGHWA	5,456	6,511	7,696	8,965	10,342	11,816
97	160	WADI ZIQLAB	0	IRBID	AL AGHWA	0	0	0	0	0	0
1397	120	WAQQAS	4537	IRBID	AL AGHWA	4,700	5,610	6,630	7,724	8,910	10,180
95	160	ZIQLAB	0	IRBID	AL AGHWA	0	0	0	0	0	0
		SUB TOTAL	74,996	IRBID	AL AGHW	77,696	92,725	109,597	127,671	147,289	168,276
1835	120	ABU AL QUN	375	IRBID	AL KOURA	389	464	548	638	736	841
1774	164	AL ASHRAFIYA	6338	IRBID	AL KOURA	6,566	7,836	9,262	10,790	12,448	14,221
75	140	AN NUHAYR	23	IRBID	AL KOURA	24	28	34	39	45	52
1774	120	AS SAMAT	1377	IRBID	AL KOURA	1,427	1,703	2,012	2,344	2,704	3,090
57	140	AS SUWWAN	8	IRBID	AL KOURA	8	10	12	14	16	18
59	140	AT TANTUR	45	IRBID	AL KOURA	47	56	66	77	88	101
1778	120	BAYT IDIS	3765	IRBID	AL KOURA	3,901	4,655	5,502	6,409	7,394	8,448
1771	164	DAYR ABI SAID	8322	IRBID	AL KOURA	8,622	10,289	12,162	14,167	16,344	18,673
61	160	DAYR AL ASAL	0	IRBID	AL KOURA	0	0	0	0	0	0
1776	120	ISKABEEN	12	IRBID	AL KOURA	12	15	18	20	24	27
1773	120	JIFFIN	2591	IRBID	AL KOURA	2,684	3,204	3,786	4,411	5,089	5,814
1788	164	JUDAYTA	2699	IRBID	AL KOURA	2,796	3,337	3,944	4,595	5,301	6,056
1780	120	KAFR ABIL	9556	IRBID	AL KOURA	9,900	11,815	13,965	16,268	18,768	21,442
1787	120	KAFR AL MA	5070	IRBID	AL KOURA	5,253	6,269	7,409	8,631	9,957	11,376
1779	120	KAFR AWAN	7245	IRBID	AL KOURA	7,506	8,958	10,588	12,334	14,229	16,256
1771	120	KAFR KIFYA	5597	IRBID	AL KOURA	5,798	6,920	8,179	9,528	10,992	12,559
1777	120	KAFR RAKIB	532	IRBID	AL KOURA	551	658	777	906	1,045	1,194
60	140	KHREBAT AL HAWI	3559	IRBID	AL KOURA	3,687	4,400	5,201	6,059	6,990	7,986
1775	120	MARHABA	1215	IRBID	AL KOURA	1,259	1,502	1,776	2,068	2,386	2,726
58	140	RUKHAYM	42	IRBID	AL KOURA	44	52	61	71	82	94
1833	120	SAMOU	4898	IRBID	AL KOURA	5,074	6,056	7,158	8,338	9,619	10,990
1772	164	TIBNA	4168	IRBID	AL KOURA	4,318	5,153	6,091	7,095	8,186	9,352
1772	120	ZIMAL	2608	IRBID	AL KOURA	2,702	3,225	3,811	4,440	5,122	5,852
		OTHERS	737	IRBID	AL KOURA	764	911	1,077	1,255	1,447	1,654
		SUB TOTAL	70,812	IRBID	AL KOURA	73,361	87,552	103,483	120,548	139,072	158,888
1785	120	AL IBRAHIMIYA	329	IRBID	AL MAZAR	341	407	481	560	646	738
1782	120	AL MAZAR ASH SH	10406	IRBID	AL MAZAR	10,781	12,866	15,207	17,715	20,437	23,349
1770	120	DAYR YUSUF	4936	IRBID	AL MAZAR	5,114	6,103	7,213	8,403	9,694	11,075

Population Projections

1784	120	HABKA	1774	IRBID	AL MAZAR 1,838	2,193	2,592	3,020	3,484	3,980
1785	120	HAWFA AL MAZA	937	IRBID	AL MAZAR 971	1,159	1,369	1,595	1,840	2,102
1786	120	INBA	5278	IRBID	AL MAZAR 5,468	6,526	7,713	8,985	10,366	11,843
1787	120	JUHFIYYA	1936	IRBID	AL MAZAR 2,006	2,394	2,829	3,296	3,802	4,344
1788	120	RHABA	5701	IRBID	AL MAZAR 5,906	7,049	8,331	9,705	11,197	12,792
1789	120	SAMAD	815	IRBID	AL MAZAR 844	1,008	1,191	1,387	1,601	1,829
1790	120	ZUBYA	2438	IRBID	AL MAZAR 2,526	3,014	3,563	4,150	4,788	5,470
1791	120	OTHERS	691	IRBID	AL MAZAR 716	854	1,010	1,176	1,357	1,550
1792	120	SUB TOTAL	35,241	IRBID	AL MAZAR 36,510	43,572	51,500	59,993	69,212	79,074
1793	120	AL KHARAJ	1741	IRBID	AL WASTIY 1,804	2,153	2,544	2,964	3,419	3,906
1794	120	HUPA AL WASTIY	2866	IRBID	AL WASTIY 2,969	3,544	4,188	4,879	5,629	6,431
1795	120	KUFR AN	2061	IRBID	AL WASTIY 2,135	2,548	3,012	3,509	4,048	4,624
1796	120	KUFR ASAD	6513	IRBID	AL WASTIY 6,747	8,053	9,518	11,088	12,791	14,614
1797	120	MURSHID	213	IRBID	AL WASTIY 221	263	311	363	418	478
1798	120	QUM	980	IRBID	AL WASTIY 1,015	1,212	1,432	1,668	1,925	2,199
1799	120	QUMAYM	3979	IRBID	AL WASTIY 4,122	4,920	5,815	6,774	7,815	8,928
1800	120	SAYDUR	1094	IRBID	AL WASTIY 1,133	1,353	1,599	1,862	2,149	2,455
1801	120	SUB TOTAL	19,447	IRBID	AL WASTIY 20,147	24,044	28,419	33,106	38,193	43,635
1802	120	AL BUWAYDA	3840	IRBID	AR RAMTH 3,978	4,748	5,612	6,537	7,542	8,616
1803	120	AR RAMTHA	49574	IRBID	AR RAMTH 51,359	61,293	72,446	84,393	97,361	111,234
1804	120	AR RUMAYTH	271	IRBID	AR RAMTH 0	0	0	0	0	0
1805	120	ASH SHAJARA	8927	IRBID	AR RAMTH 9,248	11,037	13,046	15,197	17,532	20,030
1806	120	AT TURRA	12167	IRBID	AR RAMTH 12,605	15,043	17,781	20,713	23,895	27,300
1807	120	ATH THUNAYBA	1757	IRBID	AR RAMTH 1,820	2,172	2,568	2,991	3,451	3,942
1808	120	INRAWAH	2731	IRBID	AR RAMTH 2,829	3,377	3,991	4,649	5,364	6,128
1809	120	SUB TOTAL	78,996	IRBID	AR RAMTH 81,840	97,671	115,443	134,481	155,145	177,251
1810	120	AT TAYYBA	10082	IRBID	AT TAYBA 10,445	12,465	14,734	17,163	19,801	22,622
1811	120	DATR AS SINA	4198	IRBID	AT TAYBA 4,349	5,190	6,135	7,147	8,245	9,419
1812	120	IBSAR ABU ALI	271	IRBID	AT TAYBA 281	335	396	461	532	608
1813	120	MAKHARABA	1142	IRBID	AT TAYBA 1,183	1,412	1,669	1,944	2,243	2,562
1814	120	MANDAH	728	IRBID	AT TAYBA 754	900	1,064	1,239	1,430	1,633
1815	120	SAMA	7112	IRBID	AT TAYBA 7,368	8,793	10,393	12,107	13,968	15,958
1816	120	ZBDA AL WASATI	351	IRBID	AT TAYBA 364	434	513	598	689	788
1817	120	SUB TOTAL	23,884	IRBID	AT TAYBA 24,744	29,530	34,903	40,659	46,907	53,591
1818	120	AL BURNUS	0	IRBID	BANI KINA 0	0	0	0	0	0
1819	120	AL MANSOURA	1900	IRBID	BANI KINA 1,968	2,349	2,777	3,235	3,732	4,263
1820	120	AL MUKHAYBA AL	1388	IRBID	BANI KINA 1,438	1,716	2,028	2,363	2,726	3,114
1821	120	AL MUKHAYBA A	1984	IRBID	BANI KINA 2,055	2,453	2,899	3,378	3,896	4,452
1822	120	AL QABUW	0	IRBID	BANI KINA 0	0	0	0	0	0
1823	120	AL YARMOUK	450	IRBID	BANI KINA 466	556	658	766	884	1,010
1824	120	AQRABA	2026	IRBID	BANI KINA 2,099	2,505	2,961	3,449	3,979	4,546
1825	120	AR RAFID	1828	IRBID	BANI KINA 1,894	2,260	2,671	3,112	3,590	4,102
1826	120	BALAD ASH SHAY	0	IRBID	BANI KINA 0	0	0	0	0	0
1827	120	BARASHTA	201	IRBID	BANI KINA 208	249	294	342	395	451

Population Projections

1383	120	DAR AL BASHIA	698	IRBID	BANI KINA 723	863	1,020	1,188	1,371	1,566
1384	120	HARTA	3888	IRBID	BANI KINA 4,028	4,807	5,682	6,619	7,636	8,724
1385	120	HATIM	4650	IRBID	BANI KINA 4,817	5,749	6,795	7,916	9,132	10,434
1386	120	HUBRAS	2715	IRBID	BANI KINA 2,813	3,357	3,968	4,622	5,332	6,092
1387	120	IBDAR	1655	IRBID	BANI KINA 1,715	2,046	2,419	2,817	3,250	3,713
1388	120	IZRIT	660	IRBID	BANI KINA 684	816	963	1,124	1,296	1,481
1389	120	KUFR SAWM	5711	IRBID	BANI KINA 5,917	7,061	8,346	9,722	11,216	12,814
1390	120	MAKA	5490	IRBID	BANI KINA 5,688	6,788	8,023	9,346	10,782	12,318
1391	120	MUZAYRIB	913	IRBID	BANI KINA 946	1,129	1,334	1,554	1,793	2,049
1392	120	SAHAM	4807	IRBID	BANI KINA 4,980	5,943	7,025	8,183	9,441	10,786
1393	120	SAMA AR RUSAN	1964	IRBID	BANI KINA 2,035	2,428	2,870	3,343	3,857	4,407
1394	120	SAMAR	2297	IRBID	BANI KINA 2,380	2,840	3,357	3,910	4,511	5,154
1395	120	SIFTIN	150	IRBID	BANI KINA 155	185	219	255	295	337
1396	120	UMM QAYS	3396	IRBID	BANI KINA 3,518	4,199	4,963	5,781	6,670	7,620
1397	120	YUBLA	2955	IRBID	BANI KINA 3,061	3,654	4,318	5,031	5,803	6,630
1398	120	OTHERS	80	IRBID	BANI KINA 83	99	117	136	157	180
1399	120	SUB TOTAL	51,806	IRBID	BANI KINA 53,671	64,053	75,708	88,193	101,745	116,242
1400	120	ABU AL LOQAS	907	IRBID	HARIMA 940	1,121	1,325	1,544	1,781	2,035
1401	120	AL KHYTRIYYA	0	IRBID	HARIMA 0	0	0	0	0	0
1402	120	AL KHURAYBA	1029	IRBID	HARIMA 1,066	1,272	1,504	1,752	2,021	2,309
1403	120	AL QASFAH	568	IRBID	HARIMA 588	702	830	967	1,116	1,274
1404	120	AS SILA	571	IRBID	HARIMA 592	706	834	972	1,121	1,281
1405	120	AZ ZAWIYYA	0	IRBID	HARIMA 0	0	0	0	0	0
1406	120	HARIMA	2799	IRBID	HARIMA 2,900	3,461	4,090	4,765	5,497	6,280
1407	120	KHARIA	4258	IRBID	HARIMA 4,411	5,265	6,223	7,249	8,363	9,554
1408	120	SUB TOTAL	10,132	IRBID	HARIMA 10,497	12,527	14,807	17,248	19,899	22,734
1409	120	AL BARIHA	0	IRBID	IRBID 0	0	0	0	0	0
1410	120	AL HUSN	16312	IRBID	IRBID 16,899	20,168	23,838	27,769	32,036	36,601
1411	120	AL MUGHAYYIR	7018	IRBID	IRBID 7,271	8,677	10,256	11,947	13,783	15,747
1412	120	AL AAL	3550	IRBID	IRBID 3,678	4,389	5,188	6,043	6,972	7,965
1413	120	AN NUAYYMA	9996	IRBID	IRBID 10,356	12,359	14,608	17,017	19,632	22,429
1414	120	AS SARH	15880	IRBID	IRBID 16,452	19,634	23,207	27,004	31,188	35,632
1415	120	AYDUN	14560	IRBID	IRBID 15,084	18,002	21,278	24,787	28,595	32,670
1416	120	BAIT RAS	11349	IRBID	IRBID 11,758	14,032	16,585	19,320	22,289	25,465
1417	120	BAIT YAFI	6212	IRBID	IRBID 6,436	7,681	9,078	10,575	12,200	13,938
1418	120	BUSHRA	8225	IRBID	IRBID 8,521	10,169	12,020	14,002	16,154	18,455
1419	120	DAWQARA	3609	IRBID	IRBID 3,739	4,462	5,274	6,144	7,088	8,098
1420	120	FAU ARA	2727	IRBID	IRBID 2,825	3,372	3,985	4,642	5,356	6,119
1421	120	HAKAMA	5649	IRBID	IRBID 5,852	6,984	8,255	9,617	11,094	12,675
1422	120	HAM	825	IRBID	IRBID 855	1,020	1,206	1,404	1,620	1,851
1423	120	HOUR	1596	IRBID	IRBID 1,653	1,973	2,332	2,717	3,134	3,581
1424	120	HUWARA	9753	IRBID	IRBID 10,104	12,059	14,253	16,603	19,154	21,884
1425	120	IRBID	208201	IRBID	IRBID 215,696	257,419	304,259	354,436	408,897	467,161
1426	120	IS ARA	735	IRBID	IRBID 761	909	1,074	1,251	1,444	1,649
1427	120	JAMHA	1646	IRBID	IRBID 1,705	2,035	2,405	2,802	3,233	3,693
1428	120	JUJIN	2141	IRBID	IRBID 2,218	2,647	3,129	3,645	4,205	4,804

Population Projections

1762	164	KITIM	4157	IRBID	IRBID	4,307	5,140	6,075	7,077	8,164	9,327
1742	120	KUFR JAYIZ	2690	IRBID	IRBID	2,787	3,326	3,931	4,579	5,283	6,036
1750	120	KUFR RAHTA	988	IRBID	IRBID	1,024	1,222	1,444	1,682	1,940	2,217
1758	164	KUFR YUBA	8798	IRBID	IRBID	9,115	10,878	12,857	14,977	17,279	19,741
1826	120	MARU	2386	IRBID	IRBID	2,472	2,950	3,487	4,062	4,686	5,354
2392	164	MUKHAYYAM AL	14192	IRBID	IRBID	14,703	17,547	20,740	24,160	27,872	31,844
1766	120	NATIFA	1374	IRBID	IRBID	1,423	1,699	2,008	2,339	2,698	3,083
1759	164	SAL	5182	IRBID	IRBID	5,369	6,407	7,573	8,822	10,177	11,627
1831	120	SALUM ASH SHUNN	3800	IRBID	IRBID	3,937	4,698	5,553	6,469	7,463	8,526
1786	120	SHATANA	165	IRBID	IRBID	171	204	241	281	324	370
1746	120	TUQBULL	360	IRBID	IRBID	373	445	526	613	707	808
212	160	UMM AL ABAR	0	IRBID	IRBID	0	0	0	0	0	0
1390	120	UMM AL JADAYIL	660	IRBID	IRBID	684	816	965	1,124	1,296	1,481
1749	120	ZAHAR	3304	IRBID	IRBID	3,423	4,085	4,828	5,625	6,489	7,414
211	150	ZIBDA	0	IRBID	IRBID	0	0	0	0	0	0
1759	120	ZIBDAT FARKUH	1586	IRBID	IRBID	1,643	1,961	2,318	2,700	3,115	3,559
1735	120	AL MUSHYRIFA	0	IRBID	IRBID	0	0	0	0	0	0
199	160	AL QUSAYRIN	0	IRBID	IRBID	0	0	0	0	0	0
1402	120	ALIYA	0	IRBID	IRBID	0	0	0	0	0	0
		OTHERS	218	IRBID	IRBID	226	270	319	371	428	489
		SUB TOTAL	379,844	IRBID	IRBID	393,518	469,639	555,094	646,636	745,996	852,293
		GRAND TOTAL	745,158	IRBID	IRBID	771,984	921,312	1,088,954	1,268,536	1,463,456	1,671,984
1476	120	AD DAHAMSHA	0	JARASH	JARASH	0	0	0	0	0	0
1811	120	AD DEHYR	0	JARASH	JARASH	0	0	0	0	0	0
1834	120	AL ABARA	341	JARASH	JARASH	353	422	498	581	670	765
1475	120	AL FARAH	0	JARASH	JARASH	0	0	0	0	0	0
256	150	AL FAYHAMUSHA	400	JARASH	JARASH	414	495	585	681	786	898
139	140	AL HADDADA	1538	JARASH	JARASH	1,593	1,902	2,248	2,618	3,021	3,451
1432	120	AL HUSAYNIYYAT	275	JARASH	JARASH	285	340	402	468	540	617
1714	120	AL JAZIYA	211	JARASH	JARASH	219	261	308	359	414	473
1816	120	AL JAZZA	1020	JARASH	JARASH	1,057	1,261	1,491	1,736	2,003	2,289
240	140	AL JIBARAT	1164	JARASH	JARASH	1,206	1,439	1,701	1,982	2,286	2,612
1808	120	AL KITTA	4428	JARASH	JARASH	4,587	5,475	6,471	7,538	8,696	9,936
1835	120	AL KUFAYR	1280	JARASH	JARASH	1,326	1,583	1,871	2,179	2,514	2,872
1814	120	AL MAJDAL	558	JARASH	JARASH	578	690	815	950	1,096	1,252
1485	120	AL MANAT	250	JARASH	JARASH	259	309	365	426	491	561
143	155	AL MANATT	0	JARASH	JARASH	0	0	0	0	0	0
1840	120	AL MANSHIYYA	707	JARASH	JARASH	732	874	1,033	1,204	1,389	1,586
1838	120	AL MASTABA	2254	JARASH	JARASH	2,335	2,787	3,294	3,837	4,427	5,058
1485	120	AL MAYDAN	0	JARASH	JARASH	0	0	0	0	0	0
1439	120	AL MUKHABITHA	0	JARASH	JARASH	0	0	0	0	0	0
1422	120	AL MUSHAYRIFA A	563	JARASH	JARASH	583	696	823	958	1,106	1,263
1417	120	AL MUSHAYRIFA	1121	JARASH	JARASH	1,161	1,386	1,638	1,908	2,202	2,515
1446	120	AL WATAYA	0	JARASH	JARASH	0	0	0	0	0	0
1815	120	AMAMA	102	JARASH	JARASH	106	126	149	174	200	229
1832	120	AN NABI HOUD	625	JARASH	JARASH	648	773	913	1,064	1,227	1,402

Population Projections

1836	120	ANABBA	79	JARASH	JARASH	82	98	115	134	155	177
1473	120	AR RAHMANTIYYA	589	JARASH	JARASH	610	728	861	1,003	1,157	1,322
1833	120	AR RASHAYDA	1143	JARASH	JARASH	1,184	1,413	1,670	1,946	2,245	2,565
1433	120	AR RAYYASHA	321	JARASH	JARASH	333	397	469	546	630	720
1809	120	ASFUR	503	JARASH	JARASH	521	622	735	856	988	1,129
1775	164	BALILA	4097	JARASH	JARASH	4,244	5,066	5,987	6,975	8,046	9,193
1826	120	BURMA	3726	JARASH	JARASH	3,860	4,607	5,445	6,343	7,318	8,360
1436	120	DAYR AILUN	0	JARASH	JARASH	0	0	0	0	0	0
1808	120	DAYR AL LIYYAT	1847	JARASH	JARASH	1,913	2,284	2,699	3,144	3,627	4,144
142	140	DEHAR AS SARW	2745	JARASH	JARASH	2,844	3,394	4,011	4,673	5,391	6,159
1812	120	DIBIN	42	JARASH	JARASH	44	52	61	71	82	94
1437	120	ESKAN ALQABOW	0	JARASH	JARASH	0	0	0	0	0	0
1442	120	HAMTA	387	JARASH	JARASH	401	478	566	659	760	868
141	140	JABA	397	JARASH	JARASH	411	491	580	676	780	891
1830	164	JARASH	21244	JARASH	JARASH	22,009	26,266	31,045	36,165	41,722	47,667
1813	120	JIMLA	468	JARASH	JARASH	485	579	684	797	919	1,050
1839	120	JUBBA	2423	JARASH	JARASH	2,510	2,996	3,541	4,125	4,759	5,437
1788	120	KAER KHALI	4609	JARASH	JARASH	4,775	5,699	6,735	7,846	9,052	10,342
1435	120	KHIBAT AD DILA	0	JARASH	JARASH	0	0	0	0	0	0
1425	120	KHIBAT AL KAW	0	JARASH	JARASH	0	0	0	0	0	0
263	160	KHIBET ASH SHA	418	JARASH	JARASH	433	517	611	712	821	938
1825	120	KHUSHAYBA	915	JARASH	JARASH	948	1,131	1,337	1,558	1,797	2,053
1448	120	KHUSHAYBA ASH	0	JARASH	JARASH	0	0	0	0	0	0
1837	120	MARAMAH	162	JARASH	JARASH	168	200	237	276	318	363
1842	120	MARSA	2292	JARASH	JARASH	2,375	2,834	3,349	3,902	4,501	5,143
1444	120	MASHAL FAYSAL	180	JARASH	JARASH	186	223	263	306	354	404
1810	120	MICBILA	1257	JARASH	JARASH	1,302	1,554	1,837	2,140	2,469	2,820
1829	164	MUKHAYYAM GH	13047	JARASH	JARASH	13,517	16,131	19,067	22,211	25,624	29,275
2360	164	MUKHAYYAM SUF	9506	JARASH	JARASH	9,848	11,753	13,892	16,183	18,669	21,330
1807	120	NAHLA	2618	JARASH	JARASH	2,712	3,237	3,826	4,457	5,142	5,874
1817	120	NAIDA	191	JARASH	JARASH	198	236	279	325	375	429
1776	164	QAFOAFA	3448	JARASH	JARASH	3,572	4,263	5,039	5,870	6,772	7,737
1805	120	RIMUN	4789	JARASH	JARASH	4,961	5,921	6,999	8,153	9,405	10,746
1804	120	SAKIB	8273	JARASH	JARASH	8,571	10,229	12,090	14,084	16,248	18,563
1828	164	SUF	10190	JARASH	JARASH	10,557	12,599	14,891	17,347	20,013	22,864
1841	120	TALATAR RUZZ	873	JARASH	JARASH	904	1,079	1,276	1,486	1,715	1,959
1443	120	THUGHRAT ASFU	120	JARASH	JARASH	124	148	175	204	236	269
1829	120	UMM QANTARA	391	JARASH	JARASH	405	483	571	666	768	877
1830	120	UMM QANTARA A	0	JARASH	JARASH	0	0	0	0	0	0
1831	120	UMM QANTARA A	0	JARASH	JARASH	0	0	0	0	0	0
257	140	ZAQREYI	430	JARASH	JARASH	445	532	628	732	845	965
1423	120	UMM ZAYTUNA	371	JARASH	JARASH	384	459	542	632	729	832
		OTHERS	2073	JARASH	JARASH	2,148	2,563	3,029	3,529	4,071	4,651
		GRAND TOTAL	123,613	JARASH	JARASH	128,063	152,835	180,645	210,435	242,770	277,563
1589	120	ABU DANNAH	602	MAAN	MAAN	624	744	880	1,025	1,182	1,351
1593	120	AIL	906	MAAN	MAAN	939	1,120	1,324	1,542	1,779	2,033

Population Projections

1595	120	AL FARDHAKH	959	MAAN	ATL	994	1,186	1,401	1,633	1,883	2,132
1645	120	AS SADAQA	385	MAAN	ATL	399	476	563	655	756	864
1592	120	BASTA	1084	MAAN	ATL	1,123	1,340	1,584	1,845	2,129	2,432
2445	129	BEER AL BIETAR	46	MAAN	ATL	48	57	67	78	90	103
1588	120	EL QA	1392	MAAN	ATL	1,442	1,721	2,034	2,370	2,734	3,123
		SUB TOTAL	5,374	MAAN	ATL	5,567	6,644	7,853	9,149	10,554	12,058
1911	120	AL FUJAYI	17	MAAN	AL HUSAY	18	21	25	29	33	38
1578	120	AL HASHIMIYYA	1138	MAAN	AL HUSAY	1,179	1,407	1,663	1,937	2,235	2,553
2329	164	AL HUSAYNIYYA	0	MAAN	AL HUSAY	0	0	0	0	0	0
2331	164	AL HUSAYNIYYA	0	MAAN	AL HUSAY	0	0	0	0	0	0
2332	164	AL HUSAYNIYYA	4337	MAAN	AL HUSAY	4,493	5,362	6,338	7,383	8,518	9,731
9	140	AL HUSAYNIYYA	0	MAAN	AL HUSAY	0	0	0	0	0	0
1581	140	AL MUHAMMADIY	359	MAAN	AL HUSAY	372	444	525	611	705	806
10	120	MUDAYBEE	515	MAAN	AL HUSAY	534	637	753	877	1,011	1,156
	140	UNAYZA	102	MAAN	AL HUSAY	106	126	149	174	200	229
		SUB TOTAL	6,468	MAAN	AL HUSAY	6,791	7,997	9,452	11,011	12,703	14,513
1574	120	ABU MAKHTOUB	226	MAAN	ASH SHOB	234	279	330	385	444	507
1582	120	AL BAQA	0	MAAN	ASH SHOB	0	0	0	0	0	0
2443	130	AL HADDADA	133	MAAN	ASH SHOB	138	164	194	226	261	298
1576	120	AL JAYA	37	MAAN	ASH SHOB	38	46	54	63	73	83
1575	120	AL JUHAIR	507	MAAN	ASH SHOB	525	627	741	863	996	1,138
205	160	AL KHRBA AS SA	0	MAAN	ASH SHOB	0	0	0	0	0	0
1572	120	AL MANSOURA	849	MAAN	ASH SHOB	880	1,050	1,241	1,445	1,667	1,905
1573	120	AL MUQARIYYA	791	MAAN	ASH SHOB	819	978	1,156	1,347	1,553	1,775
2371	164	ASH SHAWBAK (N)	1625	MAAN	ASH SHOB	1,684	2,009	2,375	2,766	3,191	3,646
2446	130	AZ ZAYTOUNA	86	MAAN	ASH SHOB	89	106	126	146	169	193
1579	120	AZ ZUBAYRIYYA	708	MAAN	ASH SHOB	733	875	1,035	1,205	1,390	1,589
204	160	BADADA	0	MAAN	ASH SHOB	0	0	0	0	0	0
203	160	BAYDA	322	MAAN	ASH SHOB	334	398	471	548	632	723
2419	130	BEER ABU AL ALA	13	MAAN	ASH SHOB	13	16	19	22	26	29
1583	120	BEER AD DBAGHA	1066	MAAN	ASH SHOB	1,104	1,318	1,558	1,815	2,094	2,392
242	160	BEER IBN JAZI	0	MAAN	ASH SHOB	0	0	0	0	0	0
1643	120	BEER KHDAD	690	MAAN	ASH SHOB	715	853	1,008	1,175	1,355	1,548
1923	120	HUWWALA	656	MAAN	ASH SHOB	680	811	959	1,117	1,288	1,472
2442	130	MUTHALLATH AS	1134	MAAN	ASH SHOB	1,175	1,402	1,657	1,930	2,227	2,544
244	170	SEEHAN	0	MAAN	ASH SHOB	0	0	0	0	0	0
1580	120	SHMAKH	1430	MAAN	ASH SHOB	1,481	1,768	2,090	2,434	2,808	3,209
		OTHERS	16	MAAN	ASH SHOB	17	20	23	27	31	36
		SUB TOTAL	10,289	MAAN	ASH SHOB	10,689	12,721	15,036	17,516	20,207	23,086
2417	130	ABU AL LUSON	664	MAAN	MAAN	688	821	970	1,130	1,304	1,490
1586	120	ADRUH	784	MAAN	MAAN	812	969	1,146	1,335	1,540	1,759
2420	130	AL ASHARI	47	MAAN	MAAN	49	58	69	80	92	105
2372	164	AL JAFR	2639	MAAN	MAAN	2,734	3,263	3,857	4,493	5,183	5,921
1644	120	AL JARBA AL KABI	357	MAAN	MAAN	370	441	522	608	701	801
1585	120	AL JARBA AL SAG	132	MAAN	MAAN	137	163	193	225	259	296

Population Projections

1584	120	AL MANSHIYYA	1254	MAAN	MAAN	1,299	1,550	1,833	2,135	2,463	2,814
1918	120	AL MUDAWWARA	774	MAAN	MAAN	802	957	1,131	1,318	1,520	1,737
1588	120	AL MURAYGHAH	1746	MAAN	MAAN	1,809	2,159	2,552	2,972	3,429	3,918
1915	120	AL QASIMIYYA	206	MAAN	MAAN	213	255	301	351	405	462
1597	120	AL QURAYN	692	MAAN	MAAN	717	856	1,011	1,178	1,359	1,553
2421	130	ASH SHEEDIYYA	1158	MAAN	MAAN	1,200	1,432	1,692	1,971	2,274	2,598
98	140	AT TAHOUNA	40	MAAN	MAAN	41	49	58	68	79	90
2432	130	AT TUMEA	65	MAAN	MAAN	67	80	95	111	128	146
2422	130	BATIN AL GHOU	184	MAAN	MAAN	191	227	269	313	361	413
2423	130	BAYER	3739	MAAN	MAAN	3,874	4,623	5,464	6,365	7,343	8,390
99	140	BEER HAMAD	418	MAAN	MAAN	433	517	611	712	821	938
2418	130	DLAGHA	500	MAAN	MAAN	518	618	731	851	982	1,122
100	160	HITIYYA	0	MAAN	MAAN	0	0	0	0	0	0
2328	164	MAAN	22845	MAAN	MAAN	23,667	28,246	33,385	38,891	44,867	51,260
102	155	QA AS SUAYDIYYI	0	MAAN	MAAN	0	0	0	0	0	0
1600	120	RAS AN NAQAB	457	MAAN	MAAN	473	565	668	778	898	1,025
1646	120	SUWAYMRA	346	MAAN	MAAN	358	428	506	589	680	776
1598	120	TASAN	374	MAAN	MAAN	387	462	547	637	735	839
1586	120	WUHAIDA	343	MAAN	MAAN	355	424	501	584	674	770
		OTHERS	92	MAAN	MAAN	95	114	134	157	181	206
		SUB TOTAL	39,856	MAAN	MAAN	41,291	49,278	58,245	67,850	78,275	89,429
2433	130	AL HAYY	2	MAAN	WADI MUS	2	2	3	3	4	4
1594	130	AR RAJIF	985	MAAN	WADI MUS	1,020	1,218	1,439	1,677	1,934	2,210
1590	120	AT TAYTBAH	3619	MAAN	WADI MUS	3,749	4,475	5,289	6,161	7,108	8,120
2434	130	ATN AMOUN	153	MAAN	WADI MUS	159/ 2U189	224	260	300	343	387
31	140	PETRA	0	MAAN	WADI MUS	0	0	0	0	0	0
266	140	UMM SEEHAUN	954	MAAN	WADI MUS	988	1,180	1,394	1,624	1,874	2,141
1587	120	WADI MUSA	11210	MAAN	WADI MUS	11,614	13,860	16,382	19,084	22,016	25,153
101	160	DAWR	0	MAAN	WADI MUS	0	0	0	0	0	0
		OTHERS	10	MAAN	WADI MUS	10	12	15	17	20	22
		SUB TOTAL	16,933	MAAN	WADI MUS	17,543	20,936	24,745	28,826	33,256	37,994
		GRAND TOTAL	78,920	MAAN	MAAN	81,761	97,577	115,332	134,351	154,995	177,080
1888	120	AL AREESH	806	MADABA	MADABA	835	997	1,178	1,372	1,583	1,809
214	160	AL FAIHA	0	MADABA	MADABA	0	0	0	0	0	0
1934	164	AL FAYHA	1020	MADABA	MADABA	1,057	1,261	1,491	1,736	2,003	2,289
1311	164	AL FAYSALIYYA	3357	MADABA	MADABA	3,478	4,151	4,906	5,715	6,593	7,532
1369	164	AL HILALIYYA	1520	MADABA	MADABA	1,575	1,879	2,221	2,588	2,985	3,411
1372	164	AL HILALIYYA	0	MADABA	MADABA	0	0	0	0	0	0
1373	164	AL HILALIYYA	0	MADABA	MADABA	0	0	0	0	0	0
2387	164	AL KHALDIYYA	263	MADABA	MADABA	272	325	384	448	517	590
2479	130	AL KHAITABIYYA	755	MADABA	MADABA	782	933	1,103	1,285	1,483	1,694
1674	120	AL MAMOUNIYYA	2571	MADABA	MADABA	2,664	3,179	3,757	4,377	5,049	5,769
1875	120	AL MARJUMAT	0	MADABA	MADABA	0	0	0	0	0	0
104	140	AL MURHAYYAT	38	MADABA	MADABA	39	47	56	65	75	85
1511	120	AL MUROUJ	0	MADABA	MADABA	0	0	0	0	0	0

Population Projections

1271	164	AL MUSHAQQAR	0	MADABA	MADABA	0	0	0	0	0	0	0
1275	164	AL MUSHAQQAR	2085	MADABA	MADABA	2,160	2,578	3,047	3,549	4,095	4,678	0
1276	164	AL MUSHAQQAR	0	MADABA	MADABA	0	0	0	0	0	0	0
1280	164	AL MUSHAQQAR	0	MADABA	MADABA	0	0	0	0	0	0	0
2480	130	AL QUWAYITYA	13	MADABA	MADABA	13	16	19	22	26	29	204
1382	164	AL WAHA	91	MADABA	MADABA	94	113	133	155	179	204	0
1388	164	AL WAHA	0	MADABA	MADABA	0	0	0	0	0	0	0
253	140	AL WASIYYA	614	MADABA	MADABA	636	759	897	1,045	1,206	1,378	0
106	140	AL YUSRA AL JADI	368	MADABA	MADABA	381	455	538	626	723	826	0
1291	164	GHRNATA	1232	MADABA	MADABA	1,276	1,523	1,800	2,097	2,420	2,764	0
108	140	HAMRAT MAEN	93	MADABA	MADABA	96	115	136	158	183	209	0
1322	164	HANAYNA	0	MADABA	MADABA	0	0	0	0	0	0	0
2484	120	HAWIYYAT AL BA	230	MADABA	MADABA	238	284	336	392	452	516	0
1265	164	HISBAN	2052	MADABA	MADABA	2,126	2,537	2,999	3,493	4,030	4,604	0
107	140	JAMAN	84	MADABA	MADABA	87	104	123	143	165	188	0
1302	164	JARYTNA	2138	MADABA	MADABA	2,215	2,643	3,124	3,640	4,199	4,797	0
229	150	KARMET HISBAN	862	MADABA	MADABA	893	1,066	1,260	1,467	1,693	1,934	0
2394	164	MA EEN	0	MADABA	MADABA	0	0	0	0	0	0	0
2395	164	MA EEN	0	MADABA	MADABA	0	0	0	0	0	0	0
2396	164	MA EEN	3807	MADABA	MADABA	3,944	4,707	5,563	6,481	7,477	8,542	0
2397	164	MA EEN	0	MADABA	MADABA	0	0	0	0	0	0	0
2421	164	MA EEN	0	MADABA	MADABA	0	0	0	0	0	0	0
1323	164	MADABA	55156	MADABA	MADABA	57,142	68,195	80,604	93,896	108,324	123,759	0
1339	164	MADABA	0	MADABA	MADABA	0	0	0	0	0	0	0
1342	164	MADABA	0	MADABA	MADABA	0	0	0	0	0	0	0
49	140	MANSHIYYAT HIS	946	MADABA	MADABA	980	1,170	1,382	1,610	1,858	2,123	0
2478	130	MANSHIYYAT MA	1021	MADABA	MADABA	1,058	1,262	1,492	1,738	2,005	2,291	0
213	160	SUTAYHA	0	MADABA	MADABA	0	0	0	0	0	0	0
2481	130	SYAGHA	54	MADABA	MADABA	56	67	79	92	106	121	0
2385	164	UMM AL KUSBOR	80	MADABA	MADABA	83	99	117	136	157	180	0
108	140	UYUN MUSA	3	MADABA	MADABA	3	4	4	5	6	7	0
		OTHERS	656	MADABA	MADABA	680	811	959	1,117	1,288	1,472	0
		SUB TOTAL	81,915	MADABA	MADABA	84,864	101,280	119,708	139,450	160,877	183,801	0
1414	164	AD DAYR	527	MADABA	THEEBAN	546	652	770	897	1,035	1,182	0
1423	164	AL ALIYA	0	MADABA	THEEBAN	0	0	0	0	0	0	0
1426	164	AL ALIYA	1539	MADABA	THEEBAN	1,594	1,903	2,249	2,620	3,023	3,453	0
1429	164	AL ALIYA	0	MADABA	THEEBAN	0	0	0	0	0	0	0
1404	164	AL ARYD	472	MADABA	THEEBAN	489	584	690	804	927	1,059	0
1409	164	AL ARUDA	0	MADABA	THEEBAN	0	0	0	0	0	0	0
2469	130	AL BAQEE	47	MADABA	THEEBAN	49	58	69	80	92	105	0
120	140	AL GHADIR	265	MADABA	THEEBAN	275	328	387	451	520	595	0
2485	120	AL HANOU WA AS	202	MADABA	THEEBAN	209	250	295	344	397	453	0
2383	164	AL HYAD	298	MADABA	THEEBAN	309	368	435	507	585	669	0
119	140	AL ILAQI	42	MADABA	THEEBAN	44	52	61	71	82	94	0
122	160	AL KAWM	0	MADABA	THEEBAN	0	0	0	0	0	0	0
123	140	AL MAKHRAA	168	MADABA	THEEBAN	174	208	246	286	330	377	0
1906	120	AL MATHLUTHA	209	MADABA	THEEBAN	217	258	305	356	410	469	0

Population Projections

1392	164	AL MUSAYDAT	0	MADABA	0	0	0	0	0	0	0	0
1417	164	AL MUSHARFA	277	MADABA	287	342	405	472	544	622	0	0
1422	164	AL MUSHARFA	0	MADABA	0	0	0	0	0	0	0	0
2482	120	AL QASIMYYA	0	MADABA	0	0	0	0	0	0	0	0
2384	164	AL QRAYYAT/AL H	422	MADABA	437	522	617	718	829	947	0	0
2477	130	AL QUBAYBA	41	MADABA	42	51	60	70	81	92	0	0
1410	164	AL WALA	113	MADABA	117	140	165	192	222	254	0	0
1412	164	AL WALA	0	MADABA	0	0	0	0	0	0	0	0
1527	120	AMMOURYA	61	MADABA	63	75	89	104	120	137	0	0
2475	130	AN NAMYA	203	MADABA	210	251	297	346	399	455	0	0
1526	120	AN NAQUBA	0	MADABA	0	0	0	0	0	0	0	0
1403	164	AN NUZHA	357	MADABA	370	441	522	608	701	801	0	0
128	160	AQRABA	0	MADABA	0	0	0	0	0	0	0	0
128	155	AR RHANA	0	MADABA	0	0	0	0	0	0	0	0
2486	120	ARA ER	24	MADABA	25	30	35	41	47	54	0	0
2476	130	AS SINN	213	MADABA	221	263	311	363	418	478	0	0
1435	164	ASH SHAQIQ	770	MADABA	798	952	1,125	1,311	1,512	1,728	0	0
2470	130	ATH THUHAYBA A	218	MADABA	226	270	319	371	428	489	0	0
1391	164	ATTRUZ	49	MADABA	51	61	72	83	96	110	0	0
118	140	AZ ZAHRA	199	MADABA	206	246	291	339	391	447	0	0
2474	130	BALLOUTA	385	MADABA	399	476	563	655	756	864	0	0
1427	164	BARZAH	482	MADABA	499	596	704	821	947	1,082	0	0
1439	164	DHIBAN	5013	MADABA	5,193	6,198	7,326	8,534	9,845	11,248	0	0
1378	164	DULAYLAT AL HA	608	MADABA	630	752	889	1,035	1,194	1,364	0	0
1661	120	FALHA	331	MADABA	343	414	495	586	687	798	0	0
1528	120	HAIQ ASH SHAQI	514	MADABA	533	636	751	875	1,009	1,153	0	0
261	170	JABAL BANI HAMI	0	MADABA	0	0	0	0	0	0	0	0
2473	130	JARWAN	223	MADABA	231	276	326	380	438	500	0	0
1424	164	JUDAYDA	577	MADABA	598	713	843	982	1,133	1,295	0	0
1382	164	LIBB	2452	MADABA	2,540	3,032	3,583	4,174	4,816	5,502	0	0
1385	164	LIBB	0	MADABA	0	0	0	0	0	0	0	0
1397	164	MUKAWIR	548	MADABA	568	678	801	933	1,076	1,230	0	0
1388	164	MULAYH	3955	MADABA	4,097	4,890	5,780	6,733	7,767	8,874	0	0
1388	164	MULAYH	0	MADABA	0	0	0	0	0	0	0	0
1390	164	MULAYH	0	MADABA	0	0	0	0	0	0	0	0
1418	164	SABRA	0	MADABA	0	0	0	0	0	0	0	0
124	140	UMM AD DAKAKI	180	MADABA	186	223	263	306	354	404	0	0
127	155	UMM SHAJARA/AR	45	MADABA	47	56	66	77	88	101	0	0
1907	120	UMM SHAJARA	0	MADABA	0	0	0	0	0	0	0	0
1672	120	UMM SHUJAYRA	216	MADABA	224	267	316	368	424	485	0	0
1419	164	UMM ZABARA / A	92	MADABA	95	114	134	157	181	206	0	0
1660	120	WADI AL WALA	0	MADABA	0	0	0	0	0	0	0	0
		OTHERS	1143	MADABA	1,184	1,413	1,670	1,946	2,245	2,565	0	0
		SUB TOTAL	23,480	MADABA	24,325	29,031	34,313	39,972	46,114	52,684	0	0
		GRAND TOTAL	105,395	MADABA	109,189	130,310	154,021	179,422	206,991	236,485	0	0
		TOTAL JORDAN	4,105,037		4,252,818	5,075,462	5,998,992	6,982,301	8,042,106	9,210,871	0	0

Annexes 2

Summary of Population Projections

Summary of Population Projections

GOVERNORATE	DISTRICT	POPULATION				
YEAR		2000	2005	2010	2015	2020
AJLOUN	AJLOUN	90,973	107,526	125,259	144,506	165,096
AJLOUN	KUFRANJA	25,501	30,141	35,111	40,507	46,278
TTL AJLOUN		116,474	137,667	160,370	185,012	211,375
AL AQABAH	AL AQABAH	76,998	91,008	106,017	122,307	139,735
AL AQABAH	AL QUWAYRA	30,554	36,113	42,069	48,533	55,449
AL AQABAH	WADI ARABA	4,065	4,805	5,597	6,457	7,378
TTL AL AQABAH		111,617	131,927	153,683	177,298	202,561
AL BALQA	AL ARDA	8,947	10,574	12,318	14,211	16,236
AL BALQA	AL BALQA	231,224	273,297	318,367	367,287	419,622
AL BALQA	DEIR ALLA	48,103	56,856	66,232	76,410	87,297
AL BALQA	SOUTH SHUNA	41,513	49,067	57,159	65,942	75,338
AL BALQA	ZAY	8,354	9,875	11,503	13,270	15,161
TTL AL BALQA		338,141	399,670	465,580	537,120	613,654
AL KARAK	AL KARAK	72,956	86,231	100,452	115,887	132,400
AL KARAK	AL MAZAR AL JANOUBI	52,416	61,953	72,170	83,260	95,124
AL KARAK	AL MAZRA A	15,166	17,925	20,881	24,090	27,522
AL KARAK	AL QASR	20,449	24,170	28,156	32,482	37,110
AL KARAK	AS SAFI	19,269	22,776	26,531	30,608	34,970
AL KARAK	AYY	16,846	19,911	23,195	26,759	30,572
AL KARAK	FQOU	12,695	15,005	17,480	20,166	23,039

Summary of Population Projections

TTL AL KARAK	209,797	247,972	288,865	333,252	380,737
AL MAFRAQ	AL MAFRAQ	135,807	160,519	186,990	215,723
AL MAFRAQ	AR RWEYSHID	12,919	15,270	17,788	20,521
AL MAFRAQ	BAL AMA	17,451	20,626	24,027	27,719
AL MAFRAQ	SABHA	31,949	37,762	43,989	50,749
AL MAFRAQ	SAMA AS SARHAN	13,027	15,397	17,936	20,692
TTL AL MAFRAQ		211,152	249,573	290,731	335,404
AMMAN	AL JIZA	39,261	46,404	54,057	62,363
AMMAN	AMMAN	1,607,370	1,899,847	2,213,156	2,553,223
AMMAN	MWAQQAR	22,447	26,531	30,907	35,656
AMMAN	NAUR	35,760	42,267	49,238	56,803
AMMAN	SAHAB	60,428	71,423	83,202	95,986
AMMAN	WADI AS SIR	162,233	191,753	223,375	257,698
AMMAN	UMM AL BASATEYN	10,265	12,132	14,133	16,305
TTL AMMAN		1,937,763	2,290,358	2,668,067	3,078,035
AT TAFILAH	AL HASA	12,260	14,491	16,881	19,475
AT TAFILAH	AT TAFILAH	46,271	54,690	63,710	73,499
AT TAFILAH	BUSAYRAH	18,510	21,878	25,486	29,402
TTL AT TAFILAH		77,041	91,060	106,077	122,376
AZ ZARQA	AZ ZARQA	752,504	889,430	1,036,108	1,195,314
AZ ZARQA	AZRAQ	9,845	11,637	13,556	15,639
AZ ZARQA	BEEREYN	9,092	10,747	12,519	14,443
TTL AZ ZARQA		771,442	911,814	1,062,183	1,225,396

Summary of Population Projections

IRBID	AL AGHWAR ASH SHA	92,725	109,597	127,671	147,289	168,276
IRBID	AL KOURA	87,552	103,483	120,548	139,072	158,888
IRBID	AL MAZAR	43,572	51,500	59,993	69,212	79,074
IRBID	AL WASTIYYA	24,044	28,419	33,106	38,193	43,635
IRBID	AR RAMTHA	97,671	115,443	134,481	155,145	177,251
IRBID	AT TAYBA	29,530	34,903	40,659	46,907	53,591
IRBID	BANI KINANA	64,053	75,708	88,193	101,745	116,242
IRBID	HARIMA	12,527	14,807	17,248	19,899	22,734
IRBID	IRBID	469,639	555,094	646,636	745,996	852,293
TTL IRBID		921,312	1,088,954	1,268,536	1,463,456	1,671,984
TTL JARASH		152,835	180,645	210,435	242,770	277,363
MAAN	AIL	6,644	7,853	9,149	10,554	12,058
MAAN	AL HUSAYNIYYA	7,997	9,452	11,011	12,703	14,513
MAAN	ASH SHOBAK	12,721	15,036	17,516	20,207	23,086
MAAN	MAAN	49,278	58,245	67,850	78,275	89,429
MAAN	WADI MUSA	20,936	24,745	28,826	33,256	37,994
TTL MAAN		97,577	115,332	134,351	154,995	177,080
MADABA	MADABA	101,280	119,708	139,450	160,877	183,801
MADABA	THEEBAN	29,031	34,313	39,972	46,114	52,684
TTL MADABA		130,310	154,021	179,422	206,991	236,485
TTL JOTDAN		5,075,462	5,998,992	6,988,301	8,062,106	9,210,871

Annexes 3
Water Use Projections

Water Use Projections

TOWN OR CODE	VILLAGE/TOWN NAME	1994 POPULATION	GOVERNORATE	DISTRICT	WATER USE M3/YR	2000	2005	2010	2016	2020
VILLAGE ID										
YEAR										
WATER USE LC/D										
1421	120	ABU AZ ZAYTOUN	24	AJLOUN	1,425	2,264	2,407	2,565	3,045	3,567
1937	120	AFNA	1209	AJLOUN	71,776	114,031	121,238	129,212	153,399	181,198
1802	120	AIN JANNA	7506	AJLOUN	445,616	707,956	752,698	802,203	952,371	1,124,958
1789	164	AJLOUN	6616	AJLOUN	392,779	624,012	683,449	707,085	838,447	991,569
1822	120	AL FAKHRA	108	AJLOUN	6,412	10,186	10,830	11,542	13,703	16,186
138	160	AL HANASH	0	AJLOUN	0	0	0	0	0	0
1798	120	AL HASHMIYYA	5153	AJLOUN	305,923	486,024	516,740	550,727	653,819	772,303
2403	164	ANJARA	13789	AJLOUN	818,625	1,300,560	1,382,753	1,473,688	1,749,566	2,066,619
136	140	AR RAS AL AQRA	219	AJLOUN	13,002	20,856	21,961	23,406	27,787	32,823
131	140	AS SAFAFA	231	AJLOUN	13,714	21,788	23,165	24,688	29,310	34,621
1820	120	AS SAKHINA	184	AJLOUN	10,924	17,355	18,451	19,665	23,346	27,577
1430	120	AS SARABIS	7	AJLOUN	416	660	702	748	888	1,049
1618	120	AS SUQ	61	AJLOUN	3,621	5,753	6,117	6,519	7,740	9,142
137	140	AS SUWWAN	174	AJLOUN	10,330	16,411	17,449	18,598	22,077	26,078
1440	120	ASH SHIKARA	686	AJLOUN	40,726	64,703	68,792	73,316	87,041	102,814
1792	120	AT TIYYARA	216	AJLOUN	12,823	20,373	21,660	23,085	27,406	32,373
1796	120	AWISARA	1475	AJLOUN	87,588	139,120	147,912	157,641	187,150	221,065
1821	120	AZ ZIRAAH	250	AJLOUN	14,842	23,580	25,070	26,719	31,720	37,469
1794	120	BA UN	2766	AJLOUN	164,212	260,885	277,373	295,616	350,954	414,553
132	140	BEER AD DALIYA	181	AJLOUN	10,746	17,072	18,151	19,344	22,966	27,127
133	140	DAYR AL BIRAK	29	AJLOUN	1,722	2,735	2,908	3,099	3,690	4,346
1800	120	DAYR ASSMADIYYA	94	AJLOUN	5,581	8,866	9,428	10,046	11,927	14,088
1799	120	DAYR ASSMADIYYA	144	AJLOUN	8,549	13,582	14,440	15,390	18,271	21,582
1938	120	HALAWA	4207	AJLOUN	249,761	396,789	421,876	449,623	533,790	630,522
1798	120	IBBIN	5413	AJLOUN	321,359	510,547	542,813	578,514	686,808	811,270
1795	120	IBILLIN	1132	AJLOUN	67,205	106,769	113,516	120,982	143,630	169,658
1793	120	IRJAN	3945	AJLOUN	234,207	372,087	395,602	421,622	500,547	591,255
1801	120	ISHTAFFINA	454	AJLOUN	26,953	42,821	45,527	48,521	57,604	68,043
258	140	KHARBAT AL WAHAD	3842	AJLOUN	228,092	362,372	385,274	410,614	487,478	575,818
1791	120	KHUSHAYBA AL FAU	458	AJLOUN	27,191	43,198	45,928	48,949	58,112	68,842
1790	120	MIHNA	847	AJLOUN	50,285	79,888	84,937	90,523	107,468	126,944
1777	120	RASUN	1937	AJLOUN	114,996	182,695	194,241	207,017	245,769	290,307
1415	120	SAKHRA	8156	AJLOUN	484,205	769,263	817,879	871,672	1,034,844	1,222,376
1412	120	SAMITA	395	AJLOUN	23,450	37,256	39,610	42,216	50,118	59,200
1427	120	SIN AR	572	AJLOUN	33,958	53,950	57,360	61,132	72,576	85,728
1418	120	UNM AL JULUD	0	AJLOUN	0	0	0	0	0	0
	120	UNM AL YANABI	198	AJLOUN	11,755	18,675	19,855	21,161	25,122	29,875

Water Use Projections

135	140	USAYM	165	AILOUN	9,796	15,563	16,546	17,634	20,935	24,729
		OTHERS	736	AILOUN	43,695	69,419	73,806	78,660	93,385	110,308
		SUB TOTAL	73,579	AILOUN	4,388,237	6,939,874	7,378,462	7,863,761	9,336,798	11,027,812
71	140	AL HARTH	284	AILOUN	16,861	26,787	28,479	30,352	36,034	42,564
1431	120	AS SAFINA	852	AILOUN	50,582	80,360	85,436	91,057	106,103	127,693
1819	120	BALLAS	791	AILOUN	46,960	74,606	79,321	84,538	100,363	118,551
1843	164	KUFRANJA	16714	AILOUN	992,276	1,576,442	1,676,071	1,786,308	2,120,694	2,505,002
1823	120	RAJIB	1519	AILOUN	90,180	143,270	152,324	162,343	192,733	227,659
1824	120	THAGRIT ZBEYD	263	AILOUN	15,614	24,806	26,373	28,108	33,370	39,417
		OTHERS	202	AILOUN	11,992	19,052	20,256	21,589	25,630	30,275
		SUB TOTAL	20,625	AILOUN	1,224,466	1,946,323	2,068,264	2,204,286	2,616,926	3,091,161
		GRAND TOTAL	94,204	AILOUN	5,692,701	8,886,186	9,446,726	10,088,046	11,962,724	14,118,773
174	160	AD DURRA	0	AL AQABAH	0	0	0	0	0	0
2110	164	AL AQABAH	61673	AL AQABAH	3,661,401	5,816,916	6,184,534	6,591,298	7,825,149	9,243,207
2425	130	AL MUZAFFER	175	AL AQABAH	10,369	16,506	17,549	18,703	22,204	26,228
175	160	AL YAMANIYYA	0	AL AQABAH	0	0	0	0	0	0
1636	120	TITIN	356	AL AQABAH	21,135	33,577	35,699	38,047	45,170	53,355
2424	130	WADI AL YUTUM	12	AL AQABAH	712	1,132	1,203	1,282	1,523	1,798
		OTHERS	60	AL AQABAH	3,562	5,659	6,017	6,412	7,613	8,992
		SUB TOTAL	62,276	AL AQABAH	3,697,200	5,873,790	6,246,003	6,656,743	7,901,669	9,333,661
188	160	AL JUDAYYIDA	0	AL AQABA	0	0	0	0	0	0
1919	120	AD DISI	1206	AL AQABAH	71,596	113,748	120,937	128,981	153,019	180,749
1639	120	AL GHAL	143	AL AQABAH	8,490	13,488	14,340	15,283	18,144	21,432
1605	120	AL HUMAYMA AL JA	719	AL AQABAH	42,696	67,815	72,101	76,843	91,228	107,760
1602	120	AL HUMAYMA AL QA	142	AL AQABAH	8,430	13,393	14,240	15,176	18,017	21,282
1607	120	AL KHALIDI	0	AL AQABAH	0	0	0	0	0	0
1916	120	AL MUNAYSHIR	281	AL AQABAH	16,682	26,504	28,179	30,032	35,654	42,115
2402	164	AL QUWAYRA	4930	AL AQABAH	292,664	464,991	494,378	526,863	625,525	738,881
1917	120	AR RASHIDIYYA	1114	AL AQABAH	96,136	105,071	111,711	119,059	141,346	168,960
190	160	AR RATMA	0	AL AQABAH	0	0	0	0	0	0
2430	130	AT TAWHEEL	160	AL AQABAH	9,499	15,091	16,045	17,100	20,301	23,960
1608	120	AT TUWAYS	620	AL AQABAH	36,808	58,478	62,173	66,262	78,668	92,922
1601	120	DABBIT HANUT	639	AL AQABAH	37,936	60,270	64,079	68,263	81,077	96,770
186	160	HASMA	0	AL AQABAH	0	0	0	0	0	0
189	160	QA AN NAQAB	0	AL AQABAH	0	0	0	0	0	0
1638	120	RUM	675	AL AQABAH	40,073	63,665	67,689	72,141	85,645	101,165
187	160	THALLAJA	0	AL AQABAH	0	0	0	0	0	0
		OTHERS	14083	AL AQABAH	836,079	1,326,290	1,412,235	1,505,120	1,786,869	2,110,682

Water Use Projections

		SUB TOTAL	24,712	AL AQABAH	AL QUWAY	1,467,102	2,330,803	2,478,106	2,641,093	3,135,490	3,703,687
1591	120	AR RISHA	732	AL AQABAH	WADI ARA	43,457	69,041	73,405	78,232	92,877	109,708
1912	120	BEER MATHKOR	352	AL AQABAH	WADI ARA	20,898	33,200	35,298	37,620	44,662	52,756
260	150	FINAN	249	AL AQABAH	WADI ARA	14,783	23,485	24,970	26,612	31,593	37,319
1913	120	GARANDAL	21	AL AQABAH	WADI ARA	1,247	1,981	2,106	2,244	2,665	3,147
2431	130	QATAR	153	AL AQABAH	WADI ARA	9,063	14,431	15,343	16,352	19,413	22,931
2427	130	QURAYQIRA	674	AL AQABAH	WADI ARA	40,014	63,571	67,588	72,034	85,518	101,015
1604	120	RAHMA	674	AL AQABAH	WADI ARA	40,014	63,571	67,588	72,034	85,518	101,015
169	160	TABA	0	AL AQABAH	WADI ARA	0	0	0	0	0	0
243	160	UMM MATHLA	0	AL AQABAH	WADI ARA	0	0	0	0	0	0
		OTHERS	433	AL AQABAH	WADI ARA	25,706	40,840	43,421	46,277	54,940	64,866
		SUB TOTAL	3,288	AL AQABAH	WADI ARA	196,202	310,120	329,719	351,406	417,188	492,787
		GRAND TOTAL	90,276	AL AQABAH		5,369,504	8,614,713	9,052,828	9,648,242	11,454,336	13,530,068
1481	120	AD DURAYSAT	93	AL BALQA	AL ARDA	5,521	8,772	9,326	9,939	11,800	13,938
1460	120	AL BUWAYB	166	AL BALQA	AL ARDA	9,855	15,657	16,846	17,741	21,062	24,879
1486	120	AL HAQAWA	581	AL BALQA	AL ARDA	34,493	54,799	58,262	62,094	73,718	87,077
184	160	AL MANSURA	0	AL BALQA	AL ARDA	0	0	0	0	0	0
1469	120	AL QUSAYBI	262	AL BALQA	AL ARDA	15,554	24,711	26,273	28,001	33,243	39,267
1866	120	AS SUBAYHI	3167	AL BALQA	AL ARDA	188,018	298,707	317,585	338,473	401,833	474,652
1477	120	BAYYUDA AL GHAR	224	AL BALQA	AL ARDA	13,298	21,127	22,463	23,940	28,421	33,572
1470	120	BAYYUDA ASH SHA	207	AL BALQA	AL ARDA	19,524	30,758	32,123	33,572	40,183	47,465
1864	120	BAYYUDA ASH SHAR	477	AL BALQA	AL ARDA	28,319	44,990	47,833	50,979	60,522	71,490
1471	120	JARISH	156	AL BALQA	AL ARDA	9,261	14,714	15,644	16,672	19,793	23,390
1479	120	KHISHFA	288	AL BALQA	AL ARDA	17,098	27,164	28,860	30,780	36,542	43,164
1865	120	MAYSARA	427	AL BALQA	AL ARDA	25,350	40,274	42,819	45,636	54,178	63,966
1862	120	SIHAN	816	AL BALQA	AL ARDA	48,444	76,964	81,828	87,210	103,535	122,298
1466	120	ULAYQUN	253	AL BALQA	AL ARDA	15,020	23,863	25,371	27,039	32,101	37,918
		OTHERS	119	AL BALQA	AL ARDA	7,065	11,224	11,933	12,718	15,099	17,835
		SUB TOTAL	7,236	AL BALQA	AL ARDA	429,587	682,490	725,622	773,347	918,113	1,084,482
146	140	ABU HAMID	500	AL BALQA	AL BALQA	29,684	47,159	50,140	53,437	63,441	74,937
1844	120	ABU NUSAYR	3182	AL BALQA	AL BALQA	188,909	300,122	319,089	340,076	403,736	476,900
1522	120	AD DAYIR	0	AL BALQA	AL BALQA	0	0	0	0	0	0
1478	120	ADH DHAHRA	0	AL BALQA	AL BALQA	0	0	0	0	0	0
1519	120	AL ABHARA	0	AL BALQA	AL BALQA	0	0	0	0	0	0
1855	120	AL ASHRAFIYYA	0	AL BALQA	AL BALQA	0	0	0	0	0	0
1866	164	AL FUHAYS	10097	AL BALQA	AL BALQA	599,438	962,336	1,012,522	1,079,116	1,281,120	1,513,262
248	140	AL HANOU	2120	AL BALQA	AL BALQA	125,880	199,956	212,592	226,575	268,988	317,734
1503	120	AL HUDAYB	171	AL BALQA	AL BALQA	10,152	16,128	17,148	18,276	21,697	25,629

Water Use Projections

147	140	AL MACHAREEB	539	AL BALQA	31,988	50,838	54,051	57,606	68,369	80,782
1521	120	AL MAHASINA	0	AL BALQA	0	0	0	0	0	0
1118	164	AL MAJDALA	0	AL BALQA	0	0	0	0	0	0
232	155	AL MIDMAR	0	AL BALQA	0	0	0	0	0	0
1863	120	AL MINSH	0	AL BALQA	0	0	0	0	0	0
1506	120	AL MUDARI	550	AL BALQA	32,652	51,875	55,154	58,781	69,785	82,431
1482	120	AL QULAYB	0	AL BALQA	0	0	0	0	0	0
1498	120	AL WASIYYA	203	AL BALQA	12,052	19,147	20,357	21,696	25,757	30,425
1858	120	AL YAZIDIYYA	716	AL BALQA	42,507	67,532	71,800	76,522	90,847	107,310
1516	120	AR RAQAIYQ	0	AL BALQA	0	0	0	0	0	0
1857	120	AR RUBA	0	AL BALQA	0	0	0	0	0	0
1854	120	AR RUMAYMIN	1332	AL BALQA	79,078	125,632	133,572	142,357	169,006	199,633
1847	120	AR RUMMAN	629	AL BALQA	37,342	59,326	63,076	67,224	79,808	94,271
1489	120	AS SAHLULIYYA	205	AL BALQA	12,170	19,335	20,557	21,909	26,011	30,724
1067	164	AS SALT	56296	AL BALQA	3,342,180	5,309,764	5,645,332	6,016,631	7,142,909	8,437,332
231	140	AS SAROU	977	AL BALQA	55,034	87,433	92,959	98,073	117,619	138,934
1490	120	AS SLEHYI	925	AL BALQA	54,915	87,245	92,758	98,859	117,365	138,634
1117	164	ATH THAHRA	0	AL BALQA	0	0	0	0	0	0
1852	120	AYN AL BASHA	20691	AL BALQA	1,228,383	1,951,548	2,074,882	2,211,349	2,625,301	3,101,062
1856	120	AZ ZATARI	768	AL BALQA	45,595	72,437	77,015	82,080	97,445	115,104
2482	120	BATNA	444	AL BALQA	26,359	41,877	44,524	47,452	56,335	66,544
148	150	HUMRAT IRA WA YA	227	AL BALQA	13,477	21,410	22,763	24,261	28,802	34,021
1520	120	IRA	2563	AL BALQA	152,160	241,739	257,016	273,920	325,197	384,128
1508	120	KUPR HUDA	235	AL BALQA	13,951	22,165	23,566	25,116	29,817	35,220
2424	164	MAHIS	7984	AL BALQA	473,994	753,040	800,631	853,289	1,013,020	1,196,596
1487	120	MUBIS	1611	AL BALQA	95,642	151,947	161,550	172,176	204,406	241,448
1833	164	MUKHAYYAM AL BA	58166	AL BALQA	3,453,198	5,486,140	5,832,854	6,216,487	7,380,177	8,717,597
1513	120	SAFUT	4969	AL BALQA	294,989	468,669	498,289	531,062	630,473	744,726
1505	120	SAL OUF	265	AL BALQA	15,733	24,994	26,574	28,322	33,624	39,717
1488	120	SALHUB	1361	AL BALQA	80,800	128,368	136,480	145,457	172,685	203,979
1853	120	UMM AD DANANIR	294	AL BALQA	17,454	27,730	29,482	31,421	37,303	44,063
1504	120	UMM INJASA	497	AL BALQA	29,506	46,876	49,839	53,117	63,060	74,488
1859	120	UMM JAWZA	1977	AL BALQA	117,370	186,468	198,252	211,292	250,844	296,302
149	140	WADI SHUAYB	591	AL BALQA	35,086	55,742	59,265	63,163	74,987	88,576
1654	120	YARAQA	3756	AL BALQA	222,986	354,261	376,650	401,422	476,566	562,826
		OTHERS	2223	AL BALQA	131,975	209,670	222,921	237,583	282,057	333,171
		SUB TOTAL	187,014	AL BALQA	11,102,843	17,638,912	18,763,861	19,987,109	23,728,576	28,028,620
1454	120	ABU AZ ZIGHAN	589	AL BALQA	34,968	55,554	59,065	62,949	74,733	88,276
1472	120	AD DIBAB	2042	AL BALQA	121,229	192,589	204,771	218,239	259,092	306,044
1482	120	AL KATARA AS SAM	0	AL BALQA	0	0	0	0	0	0
1488	120	AL MAHAITH	0	AL BALQA	0	0	0	0	0	0

Water Use Projections

1450	120	AL MASHARE	0	AL BALQA	DEIR ALLA 0	0	0	0	0	0
1451	120	AR RUWEYHA	2433	AL BALQA	DEIR ALLA 144,442	229,477	243,980	260,027	308,702	364,645
1456	120	AS SAWALIHA	3567	AL BALQA	DEIR ALLA 211,766	336,435	357,697	381,223	452,586	534,602
1455	120	AT TIWAL	9051	AL BALQA	DEIR ALLA 537,340	853,678	907,629	967,325	1,148,402	1,356,514
1459	120	ATTOUF	0	AL BALQA	DEIR ALLA 0	0	0	0	0	0
1449	120	AZ ZUBEYDAT	0	AL BALQA	DEIR ALLA 0	0	0	0	0	0
1495	120	DAMIYA	864	AL BALQA	DEIR ALLA 51,294	81,491	86,641	92,340	109,625	129,492
1453	120	DAYR ALLA	1185	AL BALQA	DEIR ALLA 70,351	111,768	118,831	126,647	150,354	177,601
1507	120	DHAHRIT AR RAMIL	1318	AL BALQA	DEIR ALLA 78,247	124,312	132,168	140,861	167,230	197,535
1445	120	DHRAR	4734	AL BALQA	DEIR ALLA 281,048	446,505	474,723	505,946	600,656	709,506
168	140	GHOR KABID	2989	AL BALQA	DEIR ALLA 177,451	281,919	299,735	319,449	379,248	447,975
1447	120	ISKAN AR RUWEYHA	0	AL BALQA	DEIR ALLA 0	0	0	0	0	0
1458	120	ISMA IL	0	AL BALQA	DEIR ALLA 0	0	0	0	0	0
1441	120	KHAZMA	2041	AL BALQA	DEIR ALLA 121,170	192,504	204,670	218,132	259,965	305,894
1487	120	MAYSARA AL JADEY	2292	AL BALQA	DEIR ALLA 136,071	216,178	229,840	244,957	290,812	343,512
1461	120	MU ADI	3143	AL BALQA	DEIR ALLA 186,584	296,444	315,178	335,908	398,788	471,055
1480	120	MUTHALLATH AL AR	1439	AL BALQA	DEIR ALLA 85,431	135,725	144,302	153,793	182,582	215,669
1500	120	MUTHALLATH AL M	1219	AL BALQA	DEIR ALLA 72,370	114,974	122,241	130,261	154,668	182,697
		SUB TOTAL	38,906	AL BALQA	DEIR ALLA 2,309,771	3,669,662	3,901,472	4,168,076	4,936,443	5,831,016
191	160	AL AJAJIRA	0	AL BALQA	SOUTH SH 0	0	0	0	0	0
249	140	AL JILD	1696	AL BALQA	SOUTH SH 100,698	159,964	170,074	181,260	215,191	254,187
1200	164	AL KAFRAYN	2131	AL BALQA	SOUTH SH 126,513	200,993	213,696	227,750	270,384	319,392
1134	164	AL KARAMA	7352	AL BALQA	SOUTH SH 436,473	693,431	737,255	785,745	932,831	1,101,877
1136	164	AL KARAMA	0	AL BALQA	SOUTH SH 0	0	0	0	0	0
1137	164	AL KARAMA	0	AL BALQA	SOUTH SH 0	0	0	0	0	0
1143	164	AL KARAMA	0	AL BALQA	SOUTH SH 0	0	0	0	0	0
1257	164	AN NAHDA	0	AL BALQA	SOUTH SH 0	0	0	0	0	0
1236	164	AR RAMA	2202	AL BALQA	SOUTH SH 130,728	207,690	220,815	235,339	279,393	330,024
17	140	AR RAWDA	6481	AL BALQA	SOUTH SH 384,764	611,279	649,911	692,656	822,318	971,336
1168	164	ASH SHUNA AL JANU	2727	AL BALQA	SOUTH SH 161,896	257,207	273,462	291,448	346,005	408,708
18	140	JAWFAT AL KAFOREIN	5036	AL BALQA	SOUTH SH 298,977	474,989	505,007	538,222	638,974	754,768
1175	164	MUKHAYYAM GHOR	0	AL BALQA	SOUTH SH 0	0	0	0	0	0
1154	164	SAKNAT ASH SHUNA	3898	AL BALQA	SOUTH SH 231,416	367,654	390,889	416,598	494,583	594,211
1293	164	SUWAYMA	0	AL BALQA	SOUTH SH 0	0	0	0	0	0
1298	164	SUWAYMA	2053	AL BALQA	SOUTH SH 121,882	193,636	205,674	219,414	260,487	307,692
2408	164	SUWAYMA	0	AL BALQA	SOUTH SH 0	0	0	0	0	0
		SUB TOTAL	33,576	AL BALQA	SOUTH SH 1,993,339	3,188,844	3,366,983	3,668,433	4,260,166	5,032,184
1285	120	AD DIRA AL GHARBI	101	AL BALQA	ZAY	9,526	10,128	10,794	12,815	15,137
1492	120	AD DIRA ASH SHARQ	295	AL BALQA	ZAY	27,824	29,592	31,528	37,430	44,213
1860	120	AL ALJA	0	AL BALQA	ZAY	0	0	0	0	0

Water Use Projections

1491	120	ALLAN	2485	AL BALQA	ZAY	147,529	234,382	249,194	265,584	315,300	372,438
1502	120	DAM	340	AL BALQA	ZAY	20,185	32,068	34,095	36,337	43,140	50,957
1861	120	JAL AD	476	AL BALQA	ZAY	28,259	44,896	47,733	50,872	60,395	71,340
28	140	MUSHRIFA	169	AL BALQA	ZAY	10,033	15,940	16,947	18,062	21,443	25,329
1464	120	SUMYA	164	AL BALQA	ZAY	9,736	15,468	16,446	17,527	20,809	24,579
1494	120	UMM AL AMAD	812	AL BALQA	ZAY	48,207	76,587	81,427	86,782	103,028	121,698
1496	120	ZAY	1915	AL BALQA	ZAY	113,690	180,620	192,035	204,666	242,978	287,010
		SUB TOTAL	6,757	AL BALQA	ZAY	401,149	637,311	677,688	722,184	867,337	1,012,702
		GRAND TOTAL	273,489	AL BALQA		16,236,489	26,795,120	27,425,326	29,229,119	34,700,636	40,989,013
2459	130	AD DAMIKHI	399	AL KARAK		23,688	37,633	40,012	42,643	50,626	59,800
1483	164	ADIR	3595	AL KARAK		213,428	339,076	360,505	384,215	456,138	538,799
2381	164	AL ABDALIYYA	171	AL KARAK		10,152	16,128	17,148	18,276	21,687	25,629
1513	164	AL ADNANIYYA	1976	AL KARAK		117,311	186,374	198,152	211,185	250,717	296,152
1515	164	AL ADNANIYYA	0	AL KARAK		0	0	0	0	0	0
217	155	AL BAQEE	0	AL KARAK		0	0	0	0	0	0
151	140	AL BAWWAB	17	AL KARAK		1,009	1,603	1,705	1,817	2,157	2,548
216	160	AL BISAS	0	AL KARAK		0	0	0	0	0	0
152	140	AL GHUWAYR	1532	AL KARAK		90,952	144,496	153,628	163,732	194,382	229,608
1531	120	AL HAWIYYA	442	AL KARAK		26,241	41,689	44,324	47,239	56,082	66,245
1478	164	AL JUDAYYDA	2836	AL KARAK		168,368	267,488	284,393	303,097	359,835	425,044
1497	164	AL KARAK	18587	AL KARAK		1,103,473	1,753,101	1,863,894	1,986,484	2,358,342	2,785,716
2422	164	AL KARAK	0	AL KARAK		0	0	0	0	0	0
1482	164	AL LAJUN	219	AL KARAK		13,002	20,656	21,961	23,406	27,787	32,823
2466	130	AL MAHMOUDIYYA	156	AL KARAK		9,261	14,714	15,644	16,672	19,793	23,390
153	140	AL MAMUNIYYA	285	AL KARAK		16,920	26,881	28,580	30,459	36,161	42,714
154	140	AL MURAYGHA	233	AL KARAK		13,833	21,976	23,365	24,902	29,563	34,921
1533	120	AL MUSHAYRIFA	513	AL KARAK		30,456	48,385	51,443	54,827	65,090	76,886
1904	120	AL QATRANA	3606	AL KARAK		214,081	340,113	361,608	385,391	457,534	540,447
2482	130	AL WADI AL ABYAD	539	AL KARAK		31,999	50,838	54,051	57,606	68,389	80,782
2463	130	AL WASIYYA	775	AL KARAK		46,010	73,097	77,717	82,828	98,333	116,153
220	160	AN NIJASTIYYA	0	AL KARAK		0	0	0	0	0	0
2464	130	AR RASHIDIYYA	881	AL KARAK		52,303	83,095	88,346	94,157	111,782	132,039
1894	120	AR RAWDA	431	AL KARAK		25,588	40,651	43,220	46,063	54,686	64,598
1958	120	AS SALHIYYA	386	AL KARAK		22,916	36,407	38,708	41,254	48,976	57,852
219	160	AS SUBAYHAT	0	AL KARAK		0	0	0	0	0	0
1501	164	ASH SHAHABIYYA	3108	AL KARAK		184,516	293,142	311,669	332,167	394,347	465,810
1503	164	ATH THANIYYA	2110	AL KARAK		125,266	199,012	211,590	225,506	267,720	316,235
1532	120	AYNUN	406	AL KARAK		24,103	38,293	40,713	43,391	51,514	60,849
2461	130	AZ ZUGHRIYYA	116	AL KARAK		6,887	10,941	11,632	12,397	14,718	17,385
155	150	BAQEE AL AGHAWA	512	AL KARAK		30,396	48,291	51,343	54,720	64,963	76,736

Water Use Projections

2489	130	BARDA	492	AL KARAK		29,209	46,405	49,337	52,582	62,426	73,738
1895	120	BATHAN	351	AL KARAK		20,838	33,106	35,198	37,513	44,535	52,606
1893	120	BATIR	1207	AL KARAK		71,657	113,843	121,037	126,986	153,146	180,898
1530	120	IZRA	0	AL KARAK		0	0	0	0	0	0
157	140	KIMINNA	57	AL KARAK		3,384	5,376	5,716	6,092	7,232	8,543
1486	164	MANSHIYYAT ABU H	2814	AL KARAK		167,061	265,413	282,186	300,746	357,044	421,747
1514	164	MIDDIN	1092	AL KARAK		64,830	102,996	109,505	116,707	138,554	163,863
1516	164	MIRWID	1246	AL KARAK		73,973	117,521	124,948	133,166	158,094	186,744
2382	164	MUMIYA	450	AL KARAK		26,716	42,443	45,126	48,094	57,087	67,444
2460	130	QREYFLA	109	AL KARAK		6,471	10,281	10,930	11,649	13,830	16,336
1486	164	RAKIN	0	AL KARAK		0	0	0	0	0	0
1488	164	RAKIN	2877	AL KARAK		170,802	271,355	288,504	307,479	365,037	431,189
590	164	SAD AS SULTANI	1605	AL KARAK		95,286	151,381	160,949	171,534	203,844	240,548
2447	130	SAKKA	567	AL KARAK		33,862	53,479	56,858	60,598	71,942	84,979
1494	164	SAMRA	639	AL KARAK		37,936	60,270	64,079	68,293	81,077	95,770
1957	120	SAYL AL KARAK	402	AL KARAK		23,866	37,916	40,312	42,964	51,006	60,250
2458	160	SUHOOR	35	AL KARAK		2,078	3,301	3,510	3,741	4,441	5,246
2458	130	UMM RUMMANA	66	AL KARAK		3,918	6,225	6,618	7,054	8,374	9,892
1892	120	WADI IBN HAMMAD	231	AL KARAK		13,714	21,788	23,165	24,688	29,310	34,621
1502	164	ZAHUM	822	AL KARAK		48,800	77,530	82,430	87,851	104,296	123,197
		OTHERS	114	AL KARAK		6,768	10,752	11,432	12,184	14,484	17,066
		SUB TOTAL	59,007	AL KARAK		3,503,126	5,565,462	5,917,189	6,306,369	7,486,884	8,843,642
1536	120	AD DABBA	152	AL KARAK		9,024	14,336	15,242	16,245	19,286	22,781
2456	130	AD DIBAKA	76	AL KARAK		4,512	7,168	7,621	8,122	9,843	11,390
2449	130	AJHARA	524	AL KARAK		31,109	49,423	52,546	56,002	66,486	78,534
2450	130	AL AMQA	240	AL KARAK		14,248	22,638	24,067	25,650	30,452	35,970
255	170	AL FAJJ	0	AL KARAK		0	0	0	0	0	0
2452	130	AL FAYSALIYYA	852	AL KARAK		50,582	80,360	85,438	91,057	108,103	127,683
2457	130	AL HADBA	69	AL KARAK		4,936	6,508	6,919	7,374	8,755	10,341
1546	120	AL HAMIDIYYA	164	AL KARAK		9,736	15,468	16,446	17,527	20,809	24,579
2454	130	AL HARITHIYYA	406	AL KARAK		24,103	38,293	40,713	43,391	51,514	60,849
241	160	AL HASHIMIYYA	0	AL KARAK		0	0	0	0	0	0
1556	164	AL HASHIMIYYA AL	1186	AL KARAK		70,410	111,862	118,931	126,754	150,481	177,751
1552	164	AL HUSAYNIYAH	3067	AL KARAK		182,082	289,275	307,557	327,785	389,145	459,665
76	140	AL ISAWIYYA	37	AL KARAK		2,197	3,490	3,710	3,954	4,695	5,545
1528	164	AL JAFARIYYA	0	AL KARAK		0	0	0	0	0	0
1649	120	AL JAWZA	110	AL KARAK		6,530	10,375	11,031	11,756	13,957	16,486
2453	130	AL JUWAYR	76	AL KARAK		4,512	7,168	7,621	8,122	9,843	11,390
1551	164	AL KHALDIYYA	992	AL KARAK		59,893	93,564	99,477	106,020	125,886	148,675
1530	164	AL MAZAR AL JANUB	7855	AL KARAK		466,335	740,873	787,895	839,503	996,652	1,177,264
1650	120	AL MUJAYDEL	118	AL KARAK		7,005	11,130	11,833	12,611	14,972	17,685

Water Use Projections

2451	130	AL UMARIYYA (DUL	1401	AL KARAK	AL MAZAR	83,175	132,140	140,492	149,732	177,761	209,974
1538	120	AN NUJAYMA	330	AL KARAK	AL MAZAR	19,591	31,125	33,092	35,269	41,871	49,459
63	140	AN NUHAYL WAL A	5	AL KARAK	AL MAZAR	297	472	501	534	634	749
1540	120	ASH SHUQAYRA AL	1255	AL KARAK	AL MAZAR	74,507	118,370	126,851	134,128	159,236	188,092
1542	120	ASH SHUQAYRA ASH	280	AL KARAK	AL MAZAR	16,623	26,409	28,078	29,925	35,527	41,965
2455	130	AT TALBIYYA	127	AL KARAK	AL MAZAR	7,540	11,978	12,735	13,573	16,114	19,034
1533	164	AT TAYYIBA	0	AL KARAK	AL MAZAR	0	0	0	0	0	0
1536	164	AT TAYYIBA	4277	AL KARAK	AL MAZAR	253,917	403,401	428,895	457,104	542,671	641,013
1543	120	AYNA	214	AL KARAK	AL MAZAR	12,705	20,184	21,460	22,871	27,163	32,073
1537	120	BAQI SIRARA	0	AL KARAK	AL MAZAR	0	0	0	0	0	0
66	140	KHAWKHA	7	AL KARAK	AL MAZAR	416	680	702	748	888	1,049
1553	164	MAJRA	272	AL KARAK	AL MAZAR	16,148	25,655	27,276	29,070	34,512	40,766
1540	164	MANSHIYYAT AL MA	758	AL KARAK	AL MAZAR	45,001	71,494	76,012	81,011	96,176	113,605
1541	164	MANSHIYYAT AL MA	0	AL KARAK	AL MAZAR	0	0	0	0	0	0
1550	164	MUAB	0	AL KARAK	AL MAZAR	0	0	0	0	0	0
1539	120	MUHAYY	2390	AL KARAK	AL MAZAR	141,889	225,422	239,688	255,431	303,246	358,200
1518	164	MUTA	8207	AL KARAK	AL MAZAR	487,233	774,073	822,993	877,123	1,041,315	1,230,020
1517	164	MUTA UNIVERSITY	0	AL KARAK	AL MAZAR	0	0	0	0	0	0
1898	120	NAKHAL	0	AL KARAK	AL MAZAR	0	0	0	0	0	0
2448	130	SIRARA	71	AL KARAK	AL MAZAR	4,215	6,697	7,120	7,588	9,009	10,641
1531	164	SUL	2093	AL KARAK	AL MAZAR	124,257	197,409	209,885	223,689	265,563	313,687
1557	164	THAT RAS	2339	AL KARAK	AL MAZAR	138,862	220,611	234,554	249,980	296,775	350,556
1534	120	UMM AL GHUZLAN	630	AL KARAK	AL MAZAR	37,402	59,421	63,176	67,331	79,935	94,421
1535	120	UMM AL KHANAZIR	4	AL KARAK	AL MAZAR	237	377	401	427	508	599
1899	120	UMM AL YANABI	36	AL KARAK	AL MAZAR	2,137	3,395	3,610	3,847	4,568	5,395
1546	164	UMM HAMAT	1424	AL KARAK	AL MAZAR	84,540	134,310	142,798	152,190	180,679	213,421
208	160	WADI AL AYN	0	AL KARAK	AL MAZAR	0	0	0	0	0	0
		OTHERS	350	AL KARAK	AL MAZAR	20,779	33,012	35,098	37,406	44,408	52,456
		SUB TOTAL	42,394	AL KARAK	AL MAZAR	2,516,846	3,998,546	4,261,247	4,530,866	5,379,005	6,363,777
1476	164	AL MAZRAA	5970	AL KARAK	AL MAZRA	354,427	563,082	598,668	638,043	757,481	894,750
1469	164	GHOR AL HADITHA	2672	AL KARAK	AL MAZRA	158,631	252,019	267,947	285,570	338,027	400,465
2439	130	GHOR ATH THRA	2645	AL KARAK	AL MAZRA	157,028	249,473	265,239	282,684	335,601	396,418
2440	130	GHOR ISAL	811	AL KARAK	AL MAZRA	48,147	76,492	81,327	86,676	102,901	121,548
2441	130	QASR AL BLEYDA	0	AL KARAK	AL MAZRA	0	0	0	0	0	0
		OTHERS	168	AL KARAK	AL MAZRA	9,974	15,846	16,847	17,855	21,316	25,179
		SUB TOTAL	12,266	AL KARAK	AL MAZRA	728,208	1,166,913	1,230,028	1,310,928	1,666,328	1,939,360
2467	130	ABU TURABA	359	AL KARAK	AL QASR	21,313	33,860	36,000	38,368	45,550	53,805
1895	120	AL ALYA	443	AL KARAK	AL QASR	26,300	41,783	44,424	47,346	56,208	66,394
1451	164	AL MUGHAYYIR	765	AL KARAK	AL QASR	45,417	72,154	76,714	81,759	97,064	114,654
1894	120	AL MUJIB	649	AL KARAK	AL QASR	38,530	61,213	65,081	69,362	82,346	97,289

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1462	164	AL QASR	3130	AL KARAK	AL QASR	185,822	295,217	313,875	334,519	397,138	469,107
1468	164	AL YAROUT	1097	AL KARAK	AL QASR	65,127	103,468	110,007	117,242	139,189	164,412
1475	164	AR RABBA	3470	AL KARAK	AL QASR	206,007	327,286	347,970	370,856	440,278	520,064
2468	130	AR RASHAYDA	181	AL KARAK	AL QASR	10,746	17,072	18,151	19,344	22,966	27,127
1449	164	ARIHA	441	AL KARAK	AL QASR	26,181	41,595	44,223	47,132	55,955	66,095
1466	164	AS SIMAKIYYA	1438	AL KARAK	AL QASR	85,371	135,630	144,202	153,686	182,455	215,519
1891	120	DIMNA	886	AL KARAK	AL QASR	52,600	83,566	88,848	94,691	112,417	132,789
1470	164	HUMUD	397	AL KARAK	AL QASR	23,569	37,445	39,811	42,429	50,372	59,500
1453	164	JADA	2002	AL KARAK	AL QASR	118,855	188,826	200,759	213,964	254,016	300,049
1454	164	JADA	0	AL KARAK	AL QASR	0	0	0	0	0	0
1896	120	MASAR	419	AL KARAK	AL QASR	24,875	39,520	42,017	44,781	53,163	62,797
1455	164	SHIHAN	499	AL KARAK	AL QASR	29,625	47,065	50,039	53,331	63,314	74,767
1457	164	SHIHAN	0	AL KARAK	AL QASR	0	0	0	0	0	0
		OTHERS	363	AL KARAK	AL QASR	21,551	34,238	36,401	38,796	46,056	54,404
		SUB TOTAL	16,539	AL KARAK	AL QASR	981,887	1,569,937	1,689,522	1,767,605	2,098,490	2,478,774
259	140	AL MAMOURA	493	AL KARAK	AS SAFI	29,268	46,499	49,438	52,689	62,552	73,888
1554	164	AN NAQA	0	AL KARAK	AS SAFI	0	0	0	0	0	0
1542	164	AS SAFI	0	AL KARAK	AS SAFI	0	0	0	0	0	0
1547	164	AS SAFI	13349	AL KARAK	AS SAFI	792,503	1,259,060	1,338,630	1,426,674	1,693,738	2,000,674
1900	120	FIFAH	1578	AL KARAK	AS SAFI	93,683	148,835	158,241	168,649	200,219	236,502
221	160	GHOR AL HINNABA	0	AL KARAK	AS SAFI	0	0	0	0	0	0
167	160	GHOR KHUNAYZEYR	0	AL KARAK	AS SAFI	0	0	0	0	0	0
1	140	GHOR NUMEYRA	0	AL KARAK	AS SAFI	0	0	0	0	0	0
1479	164	POTASH CO. CITY	0	AL KARAK	AS SAFI	0	0	0	0	0	0
1480	164	POTASH CO. CITY	0	AL KARAK	AS SAFI	0	0	0	0	0	0
2436	129	KNHAYZEERA	0	AL KARAK	AS SAFI	0	0	0	0	0	0
		OTHERS	165	AL KARAK	AS SAFI	9,796	15,563	16,546	17,634	20,935	24,729
		SUB TOTAL	15,585	AL KARAK	AS SAFI	926,260	1,469,967	1,562,866	1,665,646	1,977,445	2,335,793
2437	130	AL BAHR	71	AL KARAK	AYY	4,215	6,697	7,120	7,588	9,009	10,641
171	160	AL IMYAN	0	AL KARAK	AYY	0	0	0	0	0	0
1520	164	AL IRAQ	2702	AL KARAK	AYY	160,412	254,849	270,955	288,776	342,833	404,961
1510	164	AYY	6020	AL KARAK	AYY	357,395	567,798	603,692	643,387	763,825	902,244
1511	164	AYY	0	AL KARAK	AYY	0	0	0	0	0	0
1529	120	JAWZA AL JANUBIYY	615	AL KARAK	AYY	36,511	58,006	61,672	65,728	78,032	92,173
1896	120	JAWZA ASH SHAMAL	1257	AL KARAK	AYY	74,626	118,559	126,051	134,342	159,490	186,392
1509	164	KUTHRABBA	2925	AL KARAK	AYY	173,651	275,882	293,317	312,609	371,128	438,383
		OTHERS	35	AL KARAK	AYY	2,078	3,301	3,510	3,741	4,441	5,246
		SUB TOTAL	13,625	AL KARAK	AYY	808,889	1,286,092	1,366,307	1,456,171	1,728,767	2,042,039
1888	120	AZ ZAHRA	718	AL KARAK	FQOU	42,626	67,721	72,001	76,736	91,101	107,610

Water Use Projections

1887	120	FAQU	4128	AL KARAK	FOOU	245,071	389,347	413,954	441,180	523,766	618,682
1889	120	IMRA	1535	AL KARAK	FOOU	91,130	144,779	153,929	164,053	194,763	230,067
1459	164	MAJDULAYN	126	AL KARAK	FOOU	7,480	11,884	12,635	13,466	15,987	18,884
1890	120	SHAKHTOR	132	AL KARAK	FOOU	7,837	12,450	13,237	14,107	16,748	19,763
1460	164	SIRFA	3338	AL KARAK	FOOU	198,170	314,836	334,733	356,749	423,530	500,281
		OTHERS	291	AL KARAK	FOOU	17,276	27,447	29,181	31,101	36,922	43,813
		SUB TOTAL	10,268	AL KARAK	FOOU	609,590	968,464	1,029,669	1,087,392	1,302,817	1,538,911
		GRAND TOTAL	169,684	AL KARAK		10,073,796	16,004,370	17,016,818	18,134,966	21,529,723	26,431,296
1026	120	ABU GHARA	0	AL MAFRAQ	AL MAFRA	0	0	0	0	0	0
985	120	ABU TANTOUR	0	AL MAFRAQ	AL MAFRA	0	0	0	0	0	0
1705	120	AD DANIYYA	2386	AL MAFRAQ	AL MAFRA	141,652	225,044	239,267	255,004	302,739	357,600
981	120	AD DANDANIYYA	196	AL MAFRAQ	AL MAFRA	11,636	18,496	19,655	20,947	24,869	29,375
1729	120	AD DUQMUSA	483	AL MAFRAQ	AL MAFRA	28,675	45,556	48,435	51,621	61,284	72,389
160	140	AD DURAYZI	196	AL MAFRAQ	AL MAFRA	11,636	18,496	19,655	20,947	24,869	29,375
997	120	AL AMAQA	0	AL MAFRAQ	AL MAFRA	0	0	0	0	0	0
2358	164	AL BAJI	2549	AL MAFRAQ	AL MAFRA	151,329	240,418	255,612	272,424	323,420	382,030
180	155	AL BUWAYDA	0	AL MAFRAQ	AL MAFRA	0	0	0	0	0	0
983	120	AL BUWAYDA AL GH	347	AL MAFRAQ	AL MAFRA	20,601	32,729	34,797	37,086	44,028	52,006
1698	120	AL BUWAYDA ASH S	895	AL MAFRAQ	AL MAFRA	53,134	84,415	89,750	95,653	113,559	134,136
988	120	AL GHADIR (AL ABY	391	AL MAFRAQ	AL MAFRA	23,213	36,879	39,209	41,788	49,611	58,601
984	164	AL HAMRA	4586	AL MAFRAQ	AL MAFRA	272,262	432,545	459,882	490,128	581,878	687,324
159	140	AL HURSH	833	AL MAFRAQ	AL MAFRA	49,454	78,567	83,533	89,027	105,692	124,845
1701	120	AL KARM	192	AL MAFRAQ	AL MAFRA	11,399	18,109	19,264	20,520	24,361	28,776
1709	120	AL KAWM AL AHMA	1585	AL MAFRAQ	AL MAFRA	94,098	149,495	158,943	169,397	201,107	237,551
1024	120	AL KHALDIYA ASH S	1888	AL MAFRAQ	AL MAFRA	112,087	178,074	189,328	201,780	239,552	282,963
1025	120	AL KHALDIYYA	7810	AL MAFRAQ	AL MAFRA	463,664	736,629	783,182	834,693	990,943	1,170,519
1695	120	AL KHANASIRI	495	AL MAFRAQ	AL MAFRA	29,387	46,698	49,638	52,903	62,806	74,188
978	164	AL MABRUKA	3458	AL MAFRAQ	AL MAFRA	205,294	326,154	346,766	369,574	438,755	518,266
1429	120	AL MADWAR	290	AL MAFRAQ	AL MAFRA	17,217	27,352	29,081	30,994	36,796	43,464
989	164	AL MAFRAQ	32193	AL MAFRAQ	AL MAFRA	1,911,233	3,036,401	3,228,296	3,440,625	4,084,689	4,824,908
1008	120	AL MAMARIYYA	835	AL MAFRAQ	AL MAFRA	49,572	78,766	83,733	89,241	105,946	125,145
985	120	AL MANSOURA	1714	AL MAFRAQ	AL MAFRA	101,757	161,662	171,879	183,184	217,475	256,865
163	140	AL MAZZA	699	AL MAFRAQ	AL MAFRA	41,498	65,929	70,095	74,706	88,690	104,762
983	120	AL MIRQAB	0	AL MAFRAQ	AL MAFRA	0	0	0	0	0	0
1723	120	AL MUFRADAT	606	AL MAFRAQ	AL MAFRA	35,977	57,157	60,769	64,766	76,890	90,824
977	120	AL MUSHAYRIFA	143	AL MAFRAQ	AL MAFRA	8,490	13,488	14,340	15,283	18,144	21,432
247	140	AL MUSHAYRIFA	2206	AL MAFRAQ	AL MAFRA	130,966	208,067	221,216	235,766	279,900	330,623
987	120	AL MUSHRIF	438	AL MAFRAQ	AL MAFRA	26,003	41,312	43,922	46,811	55,574	65,645
1005	120	AL QASABA	0	AL MAFRAQ	AL MAFRA	0	0	0	0	0	0
976	120	AL UKAYDIR	585	AL MAFRAQ	AL MAFRA	34,730	55,176	58,663	62,522	74,226	87,677

Water Use Projections

1004	125	AMRA WA UMAYRA	1903	AL MAFRAQ	AL MAFRA	112,977	179,488	190,832	203,383	241,455	285,211
986	120	AN NAHDA	781	AL MAFRAQ	AL MAFRA	46,368	73,663	78,318	83,469	99,094	117,052
161	140	AR RAHMAT	102	AL MAFRAQ	AL MAFRA	6,056	9,621	10,229	10,901	12,942	15,287
2361	164	AR RAWDA AL GHAR	3306	AL MAFRAQ	AL MAFRA	196,271	311,818	331,524	353,329	419,470	495,485
2362	164	AR RAWDA ASH SHA	0	AL MAFRAQ	AL MAFRA	0	0	0	0	0	0
2364	164	AS SAFAWI	1374	AL MAFRAQ	AL MAFRA	81,572	128,594	137,784	146,846	174,335	205,927
999	120	AS SAHAH	225	AL MAFRAQ	AL MAFRA	13,358	21,222	22,563	24,047	28,548	33,722
1010	120	AS SAIDIYYA	661	AL MAFRAQ	AL MAFRA	39,242	62,345	66,285	70,644	83,869	99,067
1694	120	AS SUWAYLIMA	747	AL MAFRAQ	AL MAFRA	44,348	70,456	74,909	79,836	94,780	111,956
1704	120	AYDUN BANI HASAN	1605	AL MAFRAQ	AL MAFRA	95,286	151,381	160,949	171,534	203,644	240,548
1697	120	AYN	224	AL MAFRAQ	AL MAFRA	13,298	21,127	22,463	23,940	28,421	33,572
162	140	AZ ZAFARANA	77	AL MAFRAQ	AL MAFRA	4,571	7,263	7,722	8,229	9,770	11,540
971	164	AZ ZATARI	3251	AL MAFRAQ	AL MAFRA	193,005	306,630	326,008	347,450	412,491	487,242
989	120	AZ ZUBAYDIYYA	755	AL MAFRAQ	AL MAFRA	44,823	71,211	75,711	80,891	95,795	113,155
966	164	BURAYQA	598	AL MAFRAQ	AL MAFRA	35,502	56,403	59,967	63,911	75,875	89,625
1707	120	BUWAYDAT AL ULA	550	AL MAFRAQ	AL MAFRA	32,652	51,875	55,154	58,781	69,785	82,431
1827	120	DAHL	396	AL MAFRAQ	AL MAFRA	23,510	37,350	39,711	42,322	50,245	59,350
980	120	DAYR AL WARAQ	269	AL MAFRAQ	AL MAFRA	15,970	25,372	26,975	28,749	34,131	40,316
984	120	FA	1121	AL MAFRAQ	AL MAFRA	66,552	105,731	112,413	119,807	142,234	168,009
1003	120	HAMAMAT AL ULAY	161	AL MAFRAQ	AL MAFRA	9,558	15,185	16,145	17,207	20,428	24,130
1699	120	HAMAMAT AL UMUS	590	AL MAFRAQ	AL MAFRA	35,027	55,648	59,165	63,056	74,860	88,426
1700	120	HAMID	92	AL MAFRAQ	AL MAFRA	5,462	8,677	9,226	9,832	11,673	13,788
1693	164	HAWSHA	1313	AL MAFRAQ	AL MAFRA	77,950	123,840	131,667	140,327	166,595	196,785
254	170	HAY ABU AL HYAL	559	AL MAFRAQ	AL MAFRA	33,187	52,724	56,056	59,743	70,927	83,780
1690	164	HAYYAN AL MUSHRI	909	AL MAFRAQ	AL MAFRA	53,965	85,736	91,154	97,149	115,335	136,236
1696	120	HUWAYJA	382	AL MAFRAQ	AL MAFRA	22,679	36,030	38,307	40,826	48,469	57,252
1428	120	HUWAYSHAN	155	AL MAFRAQ	AL MAFRA	9,202	14,619	15,543	16,566	19,667	23,231
1702	120	KHATLAH	23	AL MAFRAQ	AL MAFRA	1,365	2,169	2,306	2,456	2,918	3,447
973	164	MANSHIYAT AS SAL	0	AL MAFRAQ	AL MAFRA	0	0	0	0	0	0
2425	164	MANSHIYAT AS SAL	1563	AL MAFRAQ	AL MAFRA	92,792	147,420	156,737	167,046	198,315	234,254
967	164	MANSHIYET BANI	5576	AL MAFRAQ	AL MAFRA	331,036	525,921	559,158	595,935	707,490	835,700
1724	120	MUNIYFEH	104	AL MAFRAQ	AL MAFRA	6,174	9,809	10,429	11,115	13,196	15,587
1703	120	NADRA	378	AL MAFRAQ	AL MAFRA	22,441	35,652	37,906	40,399	47,961	56,653
1727	120	RASM AL HISAN	166	AL MAFRAQ	AL MAFRA	9,855	15,657	16,646	17,741	21,062	24,878
165	140	RAWDAT AR RUWAY	236	AL MAFRAQ	AL MAFRA	14,011	22,259	23,666	25,222	29,944	35,370
970	164	REHAB	2591	AL MAFRAQ	AL MAFRA	153,822	244,380	259,824	276,913	328,749	398,325
1708	120	RUIM SABA	0	AL MAFRAQ	AL MAFRA	0	0	0	0	0	0
1706	120	SURRA	53	AL MAFRAQ	AL MAFRA	3,147	4,999	5,315	5,664	6,725	7,943
968	164	TAYYIB ISEM	301	AL MAFRAQ	AL MAFRA	17,870	28,390	30,184	32,169	38,191	45,112
974	164	THUGHAT AL JUBB	1374	AL MAFRAQ	AL MAFRA	81,572	129,594	137,784	146,846	174,335	205,927
2359	164	UNM AL JIMAL	1756	AL MAFRAQ	AL MAFRA	104,250	165,624	176,091	187,672	222,804	263,180
164	140	UMM AL LOULOU	201	AL MAFRAQ	AL MAFRA	11,933	18,958	20,156	21,482	25,503	30,125

Water Use Projections

991	120	UMM AN NAAM AL G	790	AL MAFRAQ	AL MAFRA	46,901	74,512	79,221	84,431	100,236	118,401
992	120	UMM AN NAAM ASH	1019	AL MAFRAQ	AL MAFRA	60,496	96,111	102,185	108,906	129,292	152,722
1726	120	UMM AS SARB	1792	AL MAFRAQ	AL MAFRA	106,387	169,019	179,701	191,520	227,371	268,575
1828	120	UMM BITTYMA	699	AL MAFRAQ	AL MAFRA	41,498	65,929	70,095	74,706	86,690	104,762
1014	120	UMM HASMASA	36	AL MAFRAQ	AL MAFRA	2,137	3,395	3,610	3,847	4,568	5,395
158	150	UMM KHARROUBA	91	AL MAFRAQ	AL MAFRA	5,402	8,583	9,125	9,726	11,546	13,639
1428	120	UMM RUMMANA	0	AL MAFRAQ	AL MAFRA	0	0	0	0	0	0
		OTHERS	987	AL MAFRAQ	AL MAFRA	58,596	93,093	98,976	105,486	125,232	147,926
		SUB TOTAL	109,841	AL MAFRAQ	AL MAFRA	6,521,038	10,360,067	11,014,795	11,739,260	13,936,767	16,462,359
1028	120	AL ARTIN	0	AL MAFRAQ	AR RWEYS	0	0	0	0	0	0
7	140	AL FAYDA	93	AL MAFRAQ	AR RWEYS	5,521	8,772	9,326	9,939	11,800	13,938
252	140	AL KARAMA	692	AL MAFRAQ	AR RWEYS	41,083	65,269	69,393	73,957	87,802	103,713
5	140	AR REESHA AL GHAR	209	AL MAFRAQ	AR RWEYS	12,408	19,713	20,958	22,337	26,518	31,324
4	140	AR REESHA ASH SHA	76	AL MAFRAQ	AR RWEYS	4,512	7,168	7,621	8,122	9,643	11,390
3	140	AR RUKBAN	152	AL MAFRAQ	AR RWEYS	9,024	14,336	15,242	16,245	19,286	22,781
27	164	AR RWEYSHID	3831	AL MAFRAQ	AR RWEYS	227,439	361,335	384,171	409,438	486,082	574,169
26	164	MANSHIYET AL GHY	1093	AL MAFRAQ	AR RWEYS	64,989	103,090	109,605	116,814	138,681	163,813
		OTHERS	4303	AL MAFRAQ	AR RWEYS	255,460	405,853	431,502	459,883	545,970	644,910
		SUB TOTAL	10,449	AL MAFRAQ	AR RWEYS	620,336	986,536	1,047,820	1,116,736	1,326,783	1,666,038
1021	120	AL BUSTAN	446	AL MAFRAQ	BAL AMA	26,478	42,066	44,725	47,666	56,589	66,844
36	140	AL HASAB	58	AL MAFRAQ	BAL AMA	3,443	5,470	5,816	6,189	7,359	8,693
40	140	AL KHAN	20	AL MAFRAQ	BAL AMA	1,187	1,886	2,006	2,137	2,538	2,987
1887	120	AL KHIRBA AS SAMR	1886	AL MAFRAQ	BAL AMA	111,968	177,865	189,127	201,566	239,298	282,663
2488	120	AL MARAJEM	146	AL MAFRAQ	BAL AMA	8,688	13,771	14,641	15,604	18,525	21,882
246	140	AL MAZRA A	1397	AL MAFRAQ	BAL AMA	82,937	131,763	140,090	149,304	177,253	209,375
1002	120	AL QADAM	169	AL MAFRAQ	BAL AMA	10,033	15,940	16,947	18,062	21,443	25,329
41	140	AN NIMRA	185	AL MAFRAQ	BAL AMA	10,983	17,449	18,552	19,772	23,473	27,727
223	140	AN NUZHA	626	AL MAFRAQ	BAL AMA	37,164	59,043	62,775	66,904	79,428	93,821
262	140	ATH THAHIRIYYA	299	AL MAFRAQ	BAL AMA	17,751	28,201	29,984	31,956	37,938	44,812
1023	120	AZ ZNAYYA	1285	AL MAFRAQ	BAL AMA	76,288	121,199	128,859	137,334	163,042	192,589
2404	164	BAL AMA	3332	AL MAFRAQ	BAL AMA	316,550	502,907	534,690	569,857	676,531	799,131
1022	120	HAMNANA	0	AL MAFRAQ	BAL AMA	0	0	0	0	0	0
1018	120	HAMNANA AL JADID	219	AL MAFRAQ	BAL AMA	13,002	20,656	21,961	23,406	27,787	32,823
1688	120	HAYYAN RUWAYBID	796	AL MAFRAQ	BAL AMA	47,257	75,078	79,822	85,072	100,998	119,300
1015	120	HAYYAN RUWAYBID	946	AL MAFRAQ	BAL AMA	56,162	89,225	94,864	101,104	120,030	141,781
264	160	UMM AS SUWAYNIY	121	AL MAFRAQ	BAL AMA	7,184	11,413	12,134	12,932	15,353	18,135
		OTHERS	183	AL MAFRAQ	BAL AMA	10,864	17,260	18,351	19,558	23,219	27,427
		SUB TOTAL	14,114	AL MAFRAQ	BAL AMA	837,920	1,331,214	1,416,344	1,508,433	1,790,802	2,116,328
77	140	ABU AL FARTH	612	AL MAFRAQ	SABHA	36,333	57,723	61,371	65,407	77,651	91,723

Water Use Projections

953	164	AD DAFYANEH	1141	AL MAFRAQ	SABHA	67,739	107,618	114,419	121,944	144,772	171,007
81	140	AL AQIB	702	AL MAFRAQ	SABHA	41,676	66,212	70,396	75,026	89,071	105,212
78	140	AL ASHRAFIYYA	632	AL MAFRAQ	SABHA	37,521	59,609	63,377	67,545	80,189	94,721
1027	120	AL BISHRIYYA	706	AL MAFRAQ	SABHA	41,914	66,589	70,797	75,454	89,578	105,811
1016	120	AL BUSTANA	401	AL MAFRAQ	SABHA	23,807	37,822	40,212	42,857	50,879	60,100
1017	120	AL HAMDIYYA	840	AL MAFRAQ	SABHA	49,869	79,228	84,235	89,775	106,580	126,895
1000	120	AL HUSAYNIYYA	70	AL MAFRAQ	SABHA	4,156	6,602	7,020	7,481	8,882	10,491
79	140	AL JAD A	36	AL MAFRAQ	SABHA	2,137	3,395	3,610	3,847	4,568	5,395
1008	120	AL JUBAYYA	646	AL MAFRAQ	SABHA	38,352	60,930	64,781	69,041	81,965	96,819
250	140	AL MANARA	914	AL MAFRAQ	SABHA	54,262	86,207	91,655	97,684	115,969	136,985
245	140	AL MANSOURA	42	AL MAFRAQ	SABHA	2,493	3,961	4,212	4,489	5,329	6,295
952	164	AL MKEFTEH	1622	AL MAFRAQ	SABHA	96,295	152,985	162,653	173,351	205,801	243,086
1009	120	AL MUNAYSA	227	AL MAFRAQ	SABHA	13,477	21,410	22,763	24,261	28,802	34,021
1012	120	AR RIFAIIYYAT	604	AL MAFRAQ	SABHA	35,858	56,968	60,569	64,552	76,636	90,524
209	140	AS SA AADA	547	AL MAFRAQ	SABHA	32,474	51,592	54,853	58,461	69,404	81,981
1691	120	AS SALHIYYA	1043	AL MAFRAQ	SABHA	61,921	98,374	104,591	111,471	132,337	156,319
1692	120	DAYR AL KAHF	913	AL MAFRAQ	SABHA	54,203	86,113	91,555	97,577	115,843	136,835
984	120	DAYR AL QINN	188	AL MAFRAQ	SABHA	11,161	17,732	18,853	20,092	23,854	28,176
86	140	HAMRA AS SUHAYM	469	AL MAFRAQ	SABHA	27,844	44,235	47,031	50,124	59,507	70,291
85	140	HULAYWAT AL MAS	558	AL MAFRAQ	SABHA	33,127	52,630	55,956	59,636	70,800	83,630
1728	120	KAWM AL RAFF	407	AL MAFRAQ	SABHA	24,163	38,398	40,814	43,498	51,641	60,999
87	140	KHISHA AL QINN	159	AL MAFRAQ	SABHA	9,440	14,997	15,944	16,993	20,174	23,830
210	160	KHISHAYAT AL ARA	0	AL MAFRAQ	SABHA	0	0	0	0	0	0
1001	120	KHUSHA SILITIN	846	AL MAFRAQ	SABHA	50,225	79,794	84,836	90,416	107,342	126,794
1007	120	MANSHIYAT AL QAN	236	AL MAFRAQ	SABHA	14,011	22,259	23,666	25,222	29,944	36,370
1725	120	MANSHIYAT AL QOB	185	AL MAFRAQ	SABHA	10,983	17,449	18,552	19,772	23,473	27,727
2363	164	NAYIFA	698	AL MAFRAQ	SABHA	41,439	66,834	69,995	74,599	88,563	104,612
1011	120	QASIM	498	AL MAFRAQ	SABHA	29,565	46,971	49,939	53,224	63,187	74,637
1682	120	RAHBAT RAKAD	557	AL MAFRAQ	SABHA	33,068	52,536	55,856	59,529	70,873	83,480
951	164	SABHA	3496	AL MAFRAQ	SABHA	207,550	329,738	350,577	373,635	443,577	523,961
996	120	SABI SYR	978	AL MAFRAQ	SABHA	58,062	92,244	98,073	104,524	124,090	146,577
84	140	TALL AR RIMAH	192	AL MAFRAQ	SABHA	11,399	18,109	19,254	20,520	24,361	28,778
954	164	UM AL QUTTAYN	2961	AL MAFRAQ	SABHA	175,789	279,278	296,927	316,457	375,695	443,778
83	140	UMM HUSAYN	129	AL MAFRAQ	SABHA	7,658	12,167	12,936	13,787	16,368	19,334
1013	120	ZAMLAT AL AMIR G	404	AL MAFRAQ	SABHA	23,985	38,105	40,513	43,177	51,260	60,549
		OTHERS	1181	AL MAFRAQ	SABHA	70,114	111,390	118,430	126,219	149,847	177,002
		SUB TOTAL	25,840	AL MAFRAQ	SABHA	1,534,069	2,437,195	2,591,221	2,761,848	3,278,612	3,872,766
1686	120	AL HARFOUSHIYYA	42	AL MAFRAQ	SAMA AS S	2,493	3,961	4,212	4,489	5,329	6,295
982	120	AL MATALLA	464	AL MAFRAQ	SAMA AS S	27,547	43,764	46,530	49,590	58,873	69,542
960	164	JABER AS SARHAN	1167	AL MAFRAQ	SAMA AS S	69,282	110,070	117,028	124,723	148,070	174,903
979	120	MANSHIYYAT AL K	317	AL MAFRAQ	SAMA AS S	18,820	29,899	31,789	33,879	40,221	47,510

Water Use Projections

961	164	MGHAYER AS SRHA	4124	AL MAFRAQ	SAMA AS S	244,834	388,970	413,552	440,752	523,258	618,082
962	164	MGHAYER AS SRHA	0	AL MAFRAQ	SAMA AS S	0	0	0	0	0	0
1684	120	RUBA AS SARHAN	665	AL MAFRAQ	SAMA AS S	39,480	62,722	66,686	71,072	84,376	99,667
963	164	SAMA AS SARHAN	3090	AL MAFRAQ	SAMA AS S	183,447	291,445	309,863	330,244	392,063	463,112
2491	140	SUMAYYA	273	AL MAFRAQ	SAMA AS S	16,207	25,749	27,376	29,177	34,639	40,916
1685	125	ZAMLAT AT TURAQI	394	AL MAFRAQ	SAMA AS S	23,391	37,162	39,510	42,108	49,991	59,051
1019	120	MANSHIYYAT AZ ZA	0	AL MAFRAQ	SAMA AS S	0	0	0	0	0	0
		SUB TOTAL	10,536	AL MAFRAQ	SAMA AS S	625,601	993,742	1,056,544	1,126,034	1,336,821	1,579,077
		GRAND TOTAL	170,780	AL MAFRAQ		10,138,864	16,107,743	17,126,724	18,252,101	21,668,786	26,696,568
972	164	ABU HULAYLIFA	217	AMMAN	AL JIZA	12,883	20,467	21,761	23,192	27,533	32,523
1667	120	AL GABIYYA	154	AMMAN	AL JIZA	9,143	14,525	15,443	16,459	19,540	23,081
1949	120	AL HAMAM	337	AMMAN	AL JIZA	20,007	31,785	33,794	36,017	42,759	50,508
145	160	AL HARY	0	AMMAN	AL JIZA	0	0	0	0	0	0
1344	164	AL JIZA	3336	AMMAN	AL JIZA	199,239	316,533	336,538	358,672	425,814	502,979
2400	120	AL KHINANA	81	AMMAN	AL JIZA	4,809	7,640	8,123	8,657	10,277	12,140
1244	164	AL LABAN	1268	AMMAN	AL JIZA	75,279	119,596	127,154	135,517	160,885	190,041
1525	120	AL MANARA	189	AMMAN	AL JIZA	11,221	17,828	18,963	20,199	23,981	28,326
1883	120	AL MUSAYTIBA	2255	AMMAN	AL JIZA	133,875	212,689	226,130	241,003	286,117	337,967
1901	120	AL MUSHATTA	92	AMMAN	AL JIZA	5,462	8,677	9,228	9,832	11,673	13,786
2397	120	AL MUSHAYRIFA	410	AMMAN	AL JIZA	24,341	38,671	41,115	43,819	52,021	61,449
2395	130	AL QANATER	125	AMMAN	AL JIZA	7,421	11,790	12,535	13,359	15,860	18,734
1318	164	AL QASTAL	1964	AMMAN	AL JIZA	116,599	185,242	196,949	209,902	249,195	294,353
1669	120	AL QUNAYTIRA	316	AMMAN	AL JIZA	18,760	28,805	31,688	33,772	40,094	47,360
1879	120	AL YAHUN	180	AMMAN	AL JIZA	10,686	16,977	18,050	19,237	22,839	26,977
1363	164	AN NASIRIYYA	312	AMMAN	AL JIZA	18,523	29,427	31,287	33,345	39,587	46,761
2389	120	AR RAMA	797	AMMAN	AL JIZA	47,316	75,172	79,923	85,179	101,124	119,450
1034	120	AS SIWAQA	123	AMMAN	AL JIZA	7,302	11,601	12,334	13,146	15,606	18,435
2401	120	ASH SHAMMOUT	657	AMMAN	AL JIZA	39,005	61,967	65,884	70,217	83,361	98,468
1341	164	AT TALBIYYA	4422	AMMAN	AL JIZA	262,525	417,077	443,436	472,601	561,069	662,745
1675	120	AT TUNAYB	90	AMMAN	AL JIZA	5,343	8,489	9,025	9,619	11,419	13,489
2380	130	ATH THAMAD	119	AMMAN	AL JIZA	7,065	11,224	11,933	12,718	15,099	17,835
1882	120	ATH THURAYYA	54	AMMAN	AL JIZA	3,206	5,093	5,415	5,771	6,852	8,093
1384	164	AZ ZAFARAN	480	AMMAN	AL JIZA	28,497	45,273	48,134	51,300	60,903	71,940
1305	164	AZ ZAYTONA	308	AMMAN	AL JIZA	18,285	29,050	30,886	32,917	39,079	46,161
1308	164	AZ ZAYTONA	0	AMMAN	AL JIZA	0	0	0	0	0	0
2383	129	AZ ZMEYLA	1199	AMMAN	AL JIZA	71,182	113,088	120,235	128,143	152,131	179,699
563	164	DAB AH	263	AMMAN	AL JIZA	15,614	24,806	26,373	28,108	33,370	39,417
1367	164	DULAYLAT AL MUTA	406	AMMAN	AL JIZA	24,103	38,293	40,713	43,391	51,514	60,849
1871	120	HAWWARA	338	AMMAN	AL JIZA	20,066	31,880	33,894	36,124	42,886	50,658
1336	164	JALLUL	473	AMMAN	AL JIZA	28,081	44,613	47,432	50,552	60,015	70,891

Water Use Projections

1880	120	JAMIL	311	AMMAN	AL JIZA	18,463	29,333	31,187	33,238	39,460	46,611
1670	120	KHADRA	515	AMMAN	AL JIZA	30,575	48,574	51,644	55,041	65,344	77,185
2402	120	KHAN AZ ZABEYB	20	AMMAN	AL JIZA	1,167	1,886	2,006	2,137	2,538	2,997
1316	164	MANJA	540	AMMAN	AL JIZA	32,059	50,932	54,151	57,712	68,516	80,932
1319	164	MANJA	0	AMMAN	AL JIZA	0	0	0	0	0	0
1407	164	MAZAYER ALYA	0	AMMAN	AL JIZA	0	0	0	0	0	0
1873	120	NATAL	529	AMMAN	AL JIZA	31,406	49,895	53,048	56,537	67,120	79,284
1432	164	RAJM AL IQAB AL GH	104	AMMAN	AL JIZA	6,174	9,809	10,429	11,115	13,196	15,587
2386	130	RAJM AL IQAB ASH S	0	AMMAN	AL JIZA	0	0	0	0	0	0
2392	130	RAJM FREYD	87	AMMAN	AL JIZA	5,165	8,206	8,724	9,298	11,039	13,039
2391	130	RUMEYL	297	AMMAN	AL JIZA	17,632	28,013	29,783	31,742	37,684	44,513
1881	120	SALYA	559	AMMAN	AL JIZA	33,187	52,724	56,056	59,743	70,927	83,760
1872	120	SAWFA	181	AMMAN	AL JIZA	10,746	17,072	18,151	19,344	22,966	27,127
1400	164	TAWR AL HASHSHAS	306	AMMAN	AL JIZA	18,167	28,862	30,686	32,704	38,826	45,862
1673	120	ULAYYAN	189	AMMAN	AL JIZA	11,221	17,826	18,953	20,199	23,981	28,326
1281	164	UMM AL AMAD	1208	AMMAN	AL JIZA	71,717	113,937	121,138	128,105	153,273	181,048
1368	164	UMM AL WALID	979	AMMAN	AL JIZA	58,121	92,338	98,174	104,631	124,217	146,727
1805	120	UMM AR RASAS	348	AMMAN	AL JIZA	20,660	32,823	34,887	37,192	44,155	52,156
1359	164	UMM QUSAYR	1524	AMMAN	AL JIZA	90,477	143,742	152,826	162,677	193,367	228,409
1360	164	UMM QUSAYR	0	AMMAN	AL JIZA	0	0	0	0	0	0
1870	120	UMM RUMANA	156	AMMAN	AL JIZA	9,261	14,714	15,844	16,672	19,793	23,380
1878	120	UMM RUQAYBA	109	AMMAN	AL JIZA	6,471	10,281	10,930	11,649	13,830	16,336
1371	164	URAYNIBA AL GHAR	786	AMMAN	AL JIZA	46,663	74,134	78,820	84,004	99,729	117,801
144	150	URAYNIBA ASH SHA	479	AMMAN	AL JIZA	28,437	45,179	48,034	51,193	60,776	71,790
1946	120	ZABAYER AL HAYYA	249	AMMAN	AL JIZA	14,783	23,485	24,970	26,612	31,593	37,319
1377	164	ZABAYR AL WATHI	117	AMMAN	AL JIZA	6,946	11,035	11,733	12,504	14,845	17,535
1676	120	ZAYNAB	222	AMMAN	AL JIZA	13,180	20,939	22,262	23,726	28,168	33,272
1524	120	ZUWIZYA	97	AMMAN	AL JIZA	5,759	9,149	9,727	10,367	12,307	14,538
		OTHERS	857	AMMAN	AL JIZA	50,878	80,831	85,939	91,592	108,737	128,442
		SUB TOTAL	31,754	AMMAN	AL JIZA	1,886,171	2,994,986	3,184,274	3,393,707	4,028,988	4,769,113
2376	120	ABU ALANDA	23995	AMMAN	AMMAN	1,424,535	2,263,177	2,406,205	2,564,464	3,044,516	3,596,237
228	140	ABU SAYYAH	566	AMMAN	AMMAN	33,602	53,384	56,758	60,491	71,815	84,829
1517	120	AL HUMMAR	0	AMMAN	AMMAN	0	0	0	0	0	0
973	120	AL JUBEHA	37165	AMMAN	AMMAN	2,206,411	3,505,353	3,726,886	3,972,007	4,715,543	5,570,084
1177	164	AL JWAYDEH	16739	AMMAN	AMMAN	993,761	1,578,800	1,678,578	1,798,980	2,123,866	2,508,748
1515	120	AL KAWM	0	AMMAN	AMMAN	0	0	0	0	0	0
1156	164	AL MUQABALAYN	20262	AMMAN	AMMAN	1,202,914	1,911,085	2,031,862	2,165,500	2,570,869	3,036,756
238	140	AL MUZAYYER	255	AMMAN	AMMAN	15,139	24,051	25,571	27,253	32,355	38,218
192	160	AL QASR	0	AMMAN	AMMAN	0	0	0	0	0	0
2375	120	AL QUWAYSIMA	25649	AMMAN	AMMAN	1,522,729	2,419,180	2,572,068	2,741,235	3,254,378	3,844,130
1201	164	AL UMAYRI	0	AMMAN	AMMAN	0	0	0	0	0	0

Water Use Projections

1215	164	AL YADUDA	10595	AMMAN	629,004	999,306	1,062,461	1,132,340	1,344,307	1,587,920
1084	164	AMMAN	0	AMMAN	0	0	0	0	0	0
1095	164	AMMAN	0	AMMAN	0	0	0	0	0	0
1096	164	AMMAN	0	AMMAN	0	0	0	0	0	0
1097	164	AMMAN	0	AMMAN	0	0	0	0	0	0
1100	164	AMMAN	0	AMMAN	0	0	0	0	0	0
1102	164	AMMAN	0	AMMAN	0	0	0	0	0	0
1108	164	AMMAN	0	AMMAN	0	0	0	0	0	0
1109	164	AMMAN	0	AMMAN	0	0	0	0	0	0
1113	164	AMMAN	0	AMMAN	0	0	0	0	0	0
1114	164	AMMAN	0	AMMAN	0	0	0	0	0	0
1120	164	AMMAN	0	AMMAN	0	0	0	0	0	0
1128	164	AMMAN	0	AMMAN	0	0	0	0	0	0
1129	164	AMMAN	0	AMMAN	0	0	0	0	0	0
1133	164	AMMAN	0	AMMAN	0	0	0	0	0	0
1149	164	AMMAN	0	AMMAN	0	0	0	0	0	0
1150	164	AMMAN	0	AMMAN	0	0	0	0	0	0
2374	164	AMMAN	963490	AMMAN	57,200,455	90,875,098	96,618,247	102,972,931	122,248,846	144,402,533
2398	164	AMMAN	0	AMMAN	0	0	0	0	0	0
2399	164	AMMAN	0	AMMAN	0	0	0	0	0	0
2400	164	AMMAN	0	AMMAN	0	0	0	0	0	0
2401	164	AMMAN	0	AMMAN	0	0	0	0	0	0
502	164	ARAB AD DAJAH	0	AMMAN	0	0	0	0	0	0
504	164	ARAB AD DAJAH	0	AMMAN	0	0	0	0	0	0
1523	120	AS SALHIYYA	2209	AMMAN	131,144	208,350	221,517	236,087	280,281	331,073
1959	130	AT TAYBEH	4137	AMMAN	245,605	390,196	414,856	442,142	524,908	620,031
1832	164	ISKAN ABU NUSAYR	18822	AMMAN	1,117,424	1,775,266	1,887,460	2,011,600	2,388,159	2,820,937
1821	120	JAWA	8353	AMMAN	495,901	787,844	837,634	892,728	1,059,839	1,251,901
1518	120	KHILDA	0	AMMAN	0	0	0	0	0	0
1184	164	KHRAIBET AS SOUQ	20573	AMMAN	1,221,377	1,940,418	2,063,049	2,198,738	2,610,329	3,083,367
1512	120	MARJ AL FARAS	0	AMMAN	0	0	0	0	0	0
2333	164	MARKA	0	AMMAN	0	0	0	0	0	0
2340	164	SABHA	0	AMMAN	0	0	0	0	0	0
1641	120	SHAFABADRAN	6502	AMMAN	386,011	613,260	652,017	694,901	824,962	974,484
1831	164	SUWAYLH	53083	AMMAN	3,151,430	5,006,718	5,323,134	5,673,242	6,735,239	7,955,785
1851	120	TAB KIRA	0	AMMAN	0	0	0	0	0	0
1676	120	TARIQ	26390	AMMAN	1,566,721	2,489,070	2,646,375	2,820,430	3,348,397	3,955,187
1835	164	TARIQ	0	AMMAN	0	0	0	0	0	0
2386	164	TARIQ	0	AMMAN	0	0	0	0	0	0
2389	164	TARIQ	0	AMMAN	0	0	0	0	0	0
1107	164	TLA AL ALI	35119	AMMAN	2,084,944	3,312,377	3,521,714	3,753,341	4,455,944	5,263,441
1110	164	TLA AL ALI	0	AMMAN	0	0	0	0	0	0

Water Use Projections

1093	164	UMM AS SUMMAQ	14814	AMMAN	879,477	1,397,237	1,485,540	1,583,245	1,879,619	2,220,240
1961	130	UMM NUWWARA	7834	AMMAN	465,089	738,892	785,589	837,258	983,988	1,174,116
1166	164	UMM QUSAYR	0	AMMAN	0	0	0	0	0	0
1173	164	UMM QUSAYR	0	AMMAN	0	0	0	0	0	0
1176	164	UMM QUSAYR	0	AMMAN	0	0	0	0	0	0
1514	120	UMM ZUWAYTINA	1895	AMMAN	112,502	178,734	190,030	202,528	240,440	284,012
56	140	WADI AL QITAR	261	AMMAN	15,496	24,617	26,173	27,894	33,116	39,117
224	140	WADI AL USH	109	AMMAN	6,471	10,281	10,930	11,649	13,830	16,336
1642	120	YATUZ	1161	AMMAN	68,926	109,504	116,424	124,082	147,309	174,004
1508	120	ZENAT AR RBOU	0	AMMAN	0	0	0	0	0	0
		OTHERS	64	AMMAN	3,800	6,036	6,418	6,840	8,120	9,592
		SUB TOTAL	1,300,042	AMMAN	77,180,887	122,618,237	130,387,498	138,941,904	164,950,986	194,843,078
536	164	ADH DHUWAYBA AS	1502	AMMAN	89,171	141,667	150,620	160,526	190,576	225,111
2410	129	AL FALEJ	53	AMMAN	3,147	4,989	5,315	5,664	6,725	7,943
526	164	AL FAYTSALIYYA	3171	AMMAN	188,256	299,085	317,986	336,900	402,341	475,252
541	164	AL HATMIYYA	500	AMMAN	29,684	47,159	50,140	53,437	63,441	74,937
267	140	AL KUTEIFA	268	AMMAN	15,911	25,277	26,875	28,642	34,004	40,166
182	140	AL MATABBA	12	AMMAN	1,132	1,132	1,203	1,282	1,523	1,798
534	164	AL MUWAQQAR	2352	AMMAN	719,633	221,838	235,857	251,370	298,425	352,505
179	155	AN NUQAYRA	1026	AMMAN	80,912	98,771	102,887	109,654	130,180	153,771
539	164	ATH THUWAYBA AL	2044	AMMAN	121,346	192,787	204,971	218,452	259,345	306,343
268	140	AZ ZUBARA	31	AMMAN	1,840	2,924	3,109	3,313	3,933	4,646
1031	120	AZ ZUMAYLAT	361	AMMAN	21,432	34,049	36,201	38,582	45,804	54,105
2409	129	GHAZALA	150	AMMAN	8,905	14,148	15,042	16,031	19,032	22,481
2403	129	MAGHAYER AL MHA	1111	AMMAN	65,958	104,788	111,410	118,738	140,965	166,511
532	164	MANSHIYYAT AL MU	1105	AMMAN	65,602	104,222	110,809	118,097	140,204	165,611
177	160	MISHASH	0	AMMAN	0	0	0	0	0	0
1238	164	RUM ASHAMI AL GH	2676	AMMAN	158,869	252,397	268,348	285,997	339,534	401,064
1944	120	RUM ASHAMI ASHS	370	AMMAN	21,966	34,888	37,103	39,544	46,946	55,454
1033	120	UMM BUTMAH	1153	AMMAN	68,451	108,749	115,622	123,227	146,284	172,805
		OTHERS	270	AMMAN	16,029	25,466	27,075	28,856	34,258	40,468
		SUB TOTAL	18,155	AMMAN	1,077,826	1,712,356	1,820,673	1,940,314	2,303,630	2,720,971
2388	130	ABU NAQLAEH	569	AMMAN	33,780	53,667	57,059	60,812	72,195	85,279
1677	120	AL ADASIYYA	1215	AMMAN	72,132	114,597	121,840	129,853	154,161	182,097
72	150	AL AMIRA	582	AMMAN	34,552	54,893	58,363	62,201	73,845	87,227
1942	120	AL BASSA	600	AMMAN	35,621	56,591	60,168	64,125	76,129	89,925
1185	164	AL BUNAYYAT AL JA	4428	AMMAN	262,881	417,643	444,037	473,242	561,830	663,644
2405	164	AL BUNAYYAT ASH	0	AMMAN	0	0	0	0	0	0
2385	130	AL MANSOURA	1126	AMMAN	66,848	106,203	112,915	120,341	142,868	168,759

Water Use Projections

2389	130	AL UWEYLIYYA	222	AMMAN	NAUR	13,180	20,939	22,262	23,726	28,168	33,272
1222	164	AR RAWDA	0	AMMAN	NAUR	0	0	0	0	0	0
1228	164	AR RAWDA	3260	AMMAN	NAUR	193,540	307,479	328,911	348,412	413,633	488,591
1232	164	AR RAWDA	0	AMMAN	NAUR	0	0	0	0	0	0
1234	164	AR RAWDA	0	AMMAN	NAUR	0	0	0	0	0	0
2386	130	BIL AAS	153	AMMAN	NAUR	9,083	14,431	15,343	16,352	19,413	22,931
1221	164	DHIBAN	641	AMMAN	NAUR	38,055	60,458	64,279	68,507	81,331	96,070
1186	164	NAUR	12323	AMMAN	NAUR	731,592	1,162,289	1,235,744	1,317,020	1,563,558	1,946,903
1191	164	NAUR	0	AMMAN	NAUR	0	0	0	0	0	0
1206	164	NAUR	0	AMMAN	NAUR	0	0	0	0	0	0
1243	164	SAYL HISBAN	1312	AMMAN	NAUR	77,891	123,746	131,567	140,220	168,488	196,835
1210	164	SHATNAH	0	AMMAN	NAUR	0	0	0	0	0	0
1212	164	TURKI	975	AMMAN	NAUR	57,884	91,961	97,772	104,203	123,709	146,128
1230	164	TURKI	0	AMMAN	NAUR	0	0	0	0	0	0
2382	130	UMM AL QUTTAYN	1328	AMMAN	NAUR	78,841	125,255	133,171	141,930	168,498	199,033
1941	120	ZBOUD	0	AMMAN	NAUR	0	0	0	0	0	0
		OTHERS	189	AMMAN	NAUR	11,221	17,826	18,953	20,199	23,981	28,326
		SUB TOTAL	28,923	AMMAN	NAUR	1,717,100	2,727,979	2,900,383	3,091,144	3,689,787	4,334,819
511	164	AL ABDALIYYA	3090	AMMAN	SAHAB	183,447	291,445	309,863	330,244	392,063	463,112
2406	129	AL BAYDA	456	AMMAN	SAHAB	27,072	43,009	45,727	48,735	57,858	68,343
518	164	AL KHASHAFIYA /AD	2425	AMMAN	SAHAB	143,967	228,723	243,178	259,172	307,687	363,446
2407	129	AL MADONA	242	AMMAN	SAHAB	14,367	22,825	24,268	25,864	30,705	36,270
1909	120	AL MANAKHIR	279	AMMAN	SAHAB	16,564	26,315	27,978	29,818	35,400	41,815
1174	164	AN NUZHA	6584	AMMAN	SAHAB	390,879	620,994	660,240	703,665	835,386	986,773
44	164	AR RAJIB	1613	AMMAN	SAHAB	95,761	152,136	161,751	172,389	204,660	241,747
2408	129	ARMADAN	17	AMMAN	SAHAB	1,009	1,603	1,705	1,817	2,157	2,548
2390	164	KHASHAFIYYAT ASH	511	AMMAN	SAHAB	30,337	48,197	51,243	54,613	64,836	76,586
1940	120	NAFE	432	AMMAN	SAHAB	25,647	40,746	43,321	46,170	54,813	64,746
2405	129	QAFUR	8	AMMAN	SAHAB	475	755	802	855	1,015	1,199
520	164	SAHAB	32480	AMMAN	SAHAB	1,928,272	3,063,471	3,257,077	3,471,298	4,121,104	4,867,922
527	164	SAHAB INDUST. CITY	0	AMMAN	SAHAB	0	0	0	0	0	0
1678	120	SALIM	715	AMMAN	SAHAB	42,448	67,438	71,700	76,416	90,720	107,160
173	150	ZAMLET AL ALYA	22	AMMAN	SAHAB	1,306	2,075	2,206	2,351	2,791	3,297
		SUB TOTAL	48,874	AMMAN	SAHAB	2,901,551	4,609,731	4,901,058	5,223,406	6,201,186	7,324,964
974	120	ABU AS SOUS	209	AMMAN	WADI AS SI	12,408	19,713	20,958	22,337	26,518	31,324
1986	130	AD DABBA	205	AMMAN	WADI AS SI	12,170	19,335	20,557	21,909	26,011	30,724
1684	120	AD DAYR	1214	AMMAN	WADI AS SI	72,073	114,503	121,739	129,746	154,034	181,948
1984	130	AL ALMANIYYA	302	AMMAN	WADI AS SI	17,929	28,484	30,284	32,276	38,318	45,262
1680	120	AL BAHATH	59	AMMAN	WADI AS SI	3,503	5,565	5,916	6,306	7,486	8,843
2383	130	AL BASSA	2979	AMMAN	WADI AS SI	176,857	280,975	298,732	318,380	377,979	446,476

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1510	120	AL BUHAYRA	316	AMMAN	WADI AS SI	18,760	29,805	31,688	33,772	40,094	47,360
1974	130	AL GHROUS	1228	AMMAN	WADI AS SI	72,904	115,823	123,143	131,242	155,810	184,046
2379	164	AL HUDAYB	140	AMMAN	WADI AS SI	8,312	13,205	14,039	14,962	17,763	20,982
1971	130	AL KASHEF	174	AMMAN	WADI AS SI	10,330	16,411	17,449	18,596	22,077	26,078
193	160	AL MADAQQ	0	AMMAN	WADI AS SI	0	0	0	0	0	0
1124	164	AL MAYSER (MAYS)	777	AMMAN	WADI AS SI	46,129	73,286	77,917	83,042	98,587	116,452
194	160	AL MU AYQ	0	AMMAN	WADI AS SI	0	0	0	0	0	0
1965	130	AL QASABAT	399	AMMAN	WADI AS SI	23,688	37,533	40,012	42,643	50,626	59,800
201	160	AL QUSAYR	0	AMMAN	WADI AS SI	0	0	0	0	0	0
1968	130	AL QUSAYR	392	AMMAN	WADI AS SI	23,272	36,973	39,310	41,895	49,737	58,751
1973	130	AN NUYER	671	AMMAN	WADI AS SI	39,836	63,288	67,288	71,713	85,137	100,566
2378	130	AR RABAHYA ASH S	968	AMMAN	WADI AS SI	57,468	91,300	97,071	103,455	122,821	145,078
1976	130	AR RABAHIYA AL J	424	AMMAN	WADI AS SI	25,172	39,991	42,518	45,315	53,798	63,547
1972	130	AR RAJAJA	354	AMMAN	WADI AS SI	21,016	33,389	35,499	37,834	44,916	53,056
1140	164	AS SUWEYSA /BADE	782	AMMAN	WADI AS SI	46,426	73,757	78,419	83,576	99,221	117,202
2381	130	AT TABAQ	328	AMMAN	WADI AS SI	19,473	30,937	32,882	35,055	41,617	49,159
1970	130	ATH THAGHRA	116	AMMAN	WADI AS SI	6,887	10,941	11,632	12,397	14,718	17,365
1963	130	ATH THRA	1546	AMMAN	WADI AS SI	91,783	145,817	155,032	165,229	196,158	231,706
1962	130	ATH THUHEYR	580	AMMAN	WADI AS SI	34,433	54,705	58,162	61,987	73,591	86,927
1662	130	BILAL/BADER	536	AMMAN	WADI AS SI	85,965	136,573	145,205	154,755	183,724	217,018
1943	120	DABOUQ	1737	AMMAN	WADI AS SI	103,122	163,832	174,185	185,642	220,393	260,332
1663	120	IRAQ AL AMIR	1448	AMMAN	WADI AS SI	54,856	87,150	92,658	98,752	117,238	138,484
2380	130	KHARBET SARA	924	AMMAN	WADI AS SI	12,170	19,335	20,557	21,909	26,011	30,724
1967	130	KHARBET WADI ASH	205	AMMAN	WADI AS SI	984,202	1,563,615	1,662,433	1,771,773	2,103,438	2,484,619
1164	164	MARJ AL HAMAM	16578	AMMAN	WADI AS SI	0	0	0	0	0	0
1169	164	MARJ AL HAMAM	0	AMMAN	WADI AS SI	0	0	0	0	0	0
52	140	UMAYSH	437	AMMAN	WADI AS SI	25,944	41,217	43,822	46,704	55,447	65,495
1158	164	UMM ABHARA	1822	AMMAN	WADI AS SI	108,168	171,849	182,709	194,726	231,178	273,071
2384	130	UMM AL QUHOUF	200	AMMAN	WADI AS SI	11,874	18,864	20,056	21,375	25,376	29,975
1975	130	UMM AL USOUD	692	AMMAN	WADI AS SI	41,083	65,269	69,393	73,957	87,802	103,713
1181	164	UMM AS SUMMAQ A	2903	AMMAN	WADI AS SI	172,345	273,807	291,111	310,258	369,336	435,086
2379	130	UMM FARWA	191	AMMAN	WADI AS SI	11,339	18,015	19,153	20,413	24,234	28,676
1125	164	WADI AS SIR	87980	AMMAN	WADI AS SI	5,223,195	8,298,157	8,822,586	9,402,857	11,163,015	13,185,954
1969	130	ZIBDA / BADER	539	AMMAN	WADI AS SI	31,999	50,838	54,051	57,606	68,399	80,782
196	160	ARQOUB ABU RUHA	0	AMMAN	WADI AS SI	0	0	0	0	0	0
1948	120	DUBAIA	0	AMMAN	WADI AS SI	0	0	0	0	0	0
1235	164	ISKAN AS SAYADLEH	0	AMMAN	WADI AS SI	0	0	0	0	0	0
1939	120	UMM AL HEYRAN	0	AMMAN	WADI AS SI	0	0	0	0	0	0
		OTHERS	859	AMMAN	WADI AS SI	50,967	81,020	86,140	91,806	108,991	128,742
		SUB TOTAL	131,214	AMMAN	WADI AS SI	7,789,910	12,376,930	13,158,068	14,023,488	16,648,601	19,666,626
1251	164	AL AL	1991	AMMAN	UMM AL B	118,202	187,788	199,656	212,788	252,621	298,400

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1255	164	AL AL	0	AMMAN	UMM AL B	0	0	0	0	0
1256	164	AL AL	0	AMMAN	UMM AL B	0	0	0	0	0
1268	164	AS SAMIK	0	AMMAN	UMM AL B	0	0	0	0	0
1274	164	AS SAMIK	1473	AMMAN	UMM AL B	87,449	138,931	147,712	157,427	186,896
1277	164	AS SAMIK	0	AMMAN	UMM AL B	0	0	0	0	0
1280	164	MASOUIH	96	AMMAN	UMM AL B	5,699	9,055	9,627	10,260	12,181
2377	164	UMM AL ASAKER	414	AMMAN	UMM AL B	24,578	39,048	41,516	44,246	52,529
1241	164	UMM AL BASATEYN	0	AMMAN	UMM AL B	0	0	0	0	0
1246	164	UMM AL BASATEYN	3378	AMMAN	UMM AL B	200,545	318,608	338,744	361,024	428,605
1950	120	UMM AL BIRAK	892	AMMAN	UMM AL B	52,956	84,132	89,449	96,332	113,178
1945	120	UMM AL KUNDOM	58	AMMAN	UMM AL B	3,443	5,470	5,816	6,199	7,359
		SUB TOTAL	8,302	AMMAN	UMM AL B	482,873	783,034	832,520	887,276	1,063,368
		GRAND TOTAL	1,567,264	AMMAN		93,046,288	147,822,281	167,164,371	187,601,238	198,866,466
8	140	AL ALYA	134	AT TAFILAH	AL HASA	7,955	12,639	13,437	14,321	17,002
1558	125	AL HASA	8515	AT TAFILAH	AL HASA	505,518	803,124	853,880	910,040	1,080,394
1569	120	JURF AD DARAWISH	653	AT TAFILAH	AL HASA	38,767	61,590	65,482	69,789	82,853
		OTHERS	614	AT TAFILAH	AL HASA	36,452	57,912	61,572	66,621	77,905
		SUB TOTAL	9,916	AT TAFILAH	AL HASA	588,693	935,264	994,371	1,059,772	1,266,156
1559	120	ABIL	527	AT TAFILAH	AT TAFILA	31,287	49,706	52,847	56,323	66,866
1560	120	ABOUR	15	AT TAFILAH	AT TAFILA	881	1,415	1,504	1,603	1,903
1548	120	ABU BANNA	539	AT TAFILAH	AT TAFILA	31,999	50,838	54,051	57,606	68,369
1545	120	AFRA	108	AT TAFILAH	AT TAFILA	6,412	10,186	10,830	11,542	13,703
2254	164	AL AYN AL BAYYDA	6550	AT TAFILAH	AT TAFILA	388,860	617,787	656,830	700,031	831,072
1541	120	AL BURBAYTA	250	AT TAFILAH	AT TAFILA	14,842	23,580	25,070	26,719	31,720
1555	120	AL EES	2060	AT TAFILAH	AT TAFILA	122,298	194,296	208,578	220,162	261,375
50	140	AL HARIR	11	AT TAFILAH	AT TAFILA	653	1,038	1,103	1,176	1,396
51	140	AL LAABAN	1	AT TAFILAH	AT TAFILA	59	94	100	107	127
1562	120	AL MITAN	2	AT TAFILAH	AT TAFILA	119	189	201	214	254
1558	120	AN NAMATAH	102	AT TAFILAH	AT TAFILA	6,056	9,621	10,229	10,901	12,942
1554	120	ARAFa	820	AT TAFILAH	AT TAFILA	48,682	77,341	82,229	87,637	104,043
1561	120	AS SIL	107	AT TAFILAH	AT TAFILA	6,352	10,092	10,730	11,436	13,576
2250	164	AT TAFILAH	20850	AT TAFILAH	AT TAFILA	1,237,822	1,966,544	2,080,827	2,228,342	2,645,475
2423	164	AT TAFILAH	0	AT TAFILAH	AT TAFILA	0	0	0	0	0
1549	120	AYMAH	1811	AT TAFILAH	AT TAFILA	107,515	170,811	181,608	193,551	228,782
1547	120	DIBAA	83	AT TAFILAH	AT TAFILA	4,928	7,828	8,323	8,871	10,531
1550	120	MAGADIL	183	AT TAFILAH	AT TAFILA	10,864	17,260	18,351	19,558	23,219
2435	130	MAKHFAH ASH SHUH	206	AT TAFILAH	AT TAFILA	12,230	19,430	20,668	22,016	26,138
1544	120	RUHAB	490	AT TAFILAH	AT TAFILA	29,090	46,216	49,137	52,369	62,172
1557	120	RUWAYM	1342	AT TAFILAH	AT TAFILA	79,672	126,576	134,575	143,428	170,275

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1551	120	SHAYDHAM	179	AT TAFILAH	AT TAFILA	10,627	16,883	17,950	19,131	22,712	26,828
1553	120	SINIFFAH	616	AT TAFILAH	AT TAFILA	36,571	58,100	61,772	65,835	78,159	92,323
1552	120	SUWAYMI	196	AT TAFILAH	AT TAFILA	11,636	18,486	19,655	20,947	24,869	29,375
		OTHERS	376	AT TAFILAH	AT TAFILA	22,322	35,464	37,705	40,185	47,707	56,353
		SUB TOTAL	37,424	AT TAFILAH	AT TAFILA	2,221,787	3,629,782	3,752,868	3,999,688	4,748,406	5,608,901
27	140	ADH DHAHL	23	AT TAFILAH	BUSAYRAH	1,385	2,169	2,306	2,458	2,918	3,447
1571	120	AL QADISIYYA	4958	AT TAFILAH	BUSAYRAH	294,346	467,632	497,186	529,886	629,077	743,078
1567	120	AR RASHADIYA	747	AT TAFILAH	BUSAYRAH	44,348	70,456	74,909	79,836	94,780	111,956
1566	120	AR RAWATH	173	AT TAFILAH	BUSAYRAH	10,271	16,317	17,348	18,489	21,950	25,928
1564	120	BUSAYRAH	5901	AT TAFILAH	BUSAYRAH	350,330	556,574	591,749	630,669	748,726	884,409
1570	120	DANA	197	AT TAFILAH	BUSAYRAH	11,695	18,581	19,755	21,054	24,996	29,525
1565	120	GHARANDAL	2573	AT TAFILAH	BUSAYRAH	152,754	242,682	258,019	274,989	326,466	385,627
1568	120	LAHDHA	0	AT TAFILAH	BUSAYRAH	0	0	0	0	0	0
1563	120	UMM SARAB	296	AT TAFILAH	BUSAYRAH	17,573	27,918	29,683	31,635	37,557	44,363
		OTHERS	103	AT TAFILAH	BUSAYRAH	6,115	9,715	10,329	11,008	13,069	15,437
		SUB TOTAL	14,971	AT TAFILAH	BUSAYRA	888,798	1,412,046	1,501,284	1,600,026	1,899,540	2,243,770
		GRAND TOTAL	62,311	AT TAFILAH		3,699,278	6,877,091	6,248,613	6,659,484	7,908,100	9,338,827
1717	120	ABU AZ ZIGHAN	809	AZ ZARQA	AZ ZARQA	48,029	76,304	81,126	86,462	102,647	121,248
1710	120	AD DUHAYTHIM	184	AZ ZARQA	AZ ZARQA	10,924	17,355	18,451	19,665	23,346	27,577
975	164	AD DULAYL	15442	AZ ZARQA	AZ ZARQA	916,760	1,456,469	1,548,515	1,650,363	1,959,301	2,314,361
976	164	AD DULAYL	0	AZ ZARQA	AZ ZARQA	0	0	0	0	0	0
977	164	AD DULAYL	0	AZ ZARQA	AZ ZARQA	0	0	0	0	0	0
1954	130	AL HALLABAT AL G	1512	AZ ZARQA	AZ ZARQA	89,764	142,610	151,623	161,595	191,844	226,610
2365	164	AL HALLABAT ASH S	2320	AZ ZARQA	AZ ZARQA	137,734	218,819	232,648	247,950	294,365	347,709
981	164	AL HASHIMIYYA	0	AZ ZARQA	AZ ZARQA	0	0	0	0	0	0
982	164	AL HASHIMIYYA AL	0	AZ ZARQA	AZ ZARQA	0	0	0	0	0	0
983	164	AL HASHIMIYYA AL	0	AZ ZARQA	AZ ZARQA	0	0	0	0	0	0
980	164	AL HASHIMIYYA	13038	AZ ZARQA	AZ ZARQA	774,040	1,229,727	1,307,443	1,393,435	1,654,278	1,954,063
2341	164	AL MUSHAYRFA	40482	AZ ZARQA	AZ ZARQA	2,403,335	3,818,209	4,059,513	4,326,511	5,136,408	6,087,217
986	164	AR RUHAYL	148	AZ ZARQA	AZ ZARQA	8,786	13,959	14,841	15,617	18,778	22,181
2347	164	AR RUSAYFA	131130	AZ ZARQA	AZ ZARQA	7,784,923	12,368,008	13,149,644	14,014,510	16,637,942	19,653,036
985	164	AS SUKNEH	9764	AZ ZARQA	AZ ZARQA	579,669	920,928	979,129	1,043,527	1,238,869	1,463,374
1659	120	ASH SHKHOUT	0	AZ ZARQA	AZ ZARQA	0	0	0	0	0	0
1029	120	AT TAFIH AL GHARB	342	AZ ZARQA	AZ ZARQA	20,304	32,257	34,296	36,551	43,393	51,257
1952	120	AT TAFIH ASH SHAR	0	AZ ZARQA	AZ ZARQA	0	0	0	0	0	0
206	160	AWAJAN	0	AZ ZARQA	AZ ZARQA	0	0	0	0	0	0
2351	164	AZ ZARQA	0	AZ ZARQA	AZ ZARQA	0	0	0	0	0	0
2352	164	AZ ZARQA	0	AZ ZARQA	AZ ZARQA	0	0	0	0	0	0
2353	164	AZ ZARQA	0	AZ ZARQA	AZ ZARQA	0	0	0	0	0	0

Water Use Projections

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Water Use Projections

1711	120	MURHIB	119	AZ ZARQA	BEEREYN	7,065	11,224	11,933	12,718	15,099	17,835
1850	120	RUM ASH SHAWK	363	AZ ZARQA	BEEREYN	21,551	34,238	36,401	38,796	46,058	54,404
1721	120	SARRUT	863	AZ ZARQA	BEEREYN	51,235	81,397	86,541	92,233	109,489	129,342
1715	120	TAWAHIN AL IDWAN	40	AZ ZARQA	BEEREYN	2,375	3,773	4,011	4,275	5,075	5,965
1493	120	UMM AL BIYAR	410	AZ ZARQA	BEEREYN	24,341	38,671	41,115	43,819	52,021	61,449
236	140	UMM AL FATAYER	100	AZ ZARQA	BEEREYN	5,937	9,432	10,028	10,687	12,688	14,987
1484	120	UMM AL MIKMAN	321	AZ ZARQA	BEEREYN	19,057	30,276	32,190	34,307	40,729	48,110
1452	120	UMM MUGHEYRAT	0	AZ ZARQA	BEEREYN	0	0	0	0	0	0
1846	120	UMM RUMMANA	566	AZ ZARQA	BEEREYN	33,602	53,384	56,758	60,491	71,815	84,829
	120	OTHERS	323	AZ ZARQA	BEEREYN	19,176	30,465	32,390	34,521	40,983	48,409
		SUB TOTAL	7,354	AZ ZARQA	BEEREYN	436,692	693,620	737,466	786,968	933,086	1,102,177
		GRAND TOTAL	623,943	AZ ZARQA		37,042,236	58,849,476	62,568,660	66,683,968	79,168,688	93,613,113
1420	120	ABU HABIL	874	IRBID	AL AGHWA	51,888	82,435	87,644	93,409	110,894	130,990
88	140	ABU SIDO	2090	IRBID	AL AGHWA	124,079	197,126	209,584	223,369	265,182	313,238
1438	120	ABU UBAYDA	0	IRBID	AL AGHWA	0	0	0	0	0	0
93	160	ABU ZIYAD	0	IRBID	AL AGHWA	0	0	0	0	0	0
1404	120	ADH DHUHEYR	0	IRBID	AL AGHWA	0	0	0	0	0	0
1379	120	AL ADASIYYA	2030	IRBID	AL AGHWA	120,517	191,467	203,567	216,956	257,569	304,245
1394	120	AL ARAMISHA	0	IRBID	AL AGHWA	0	0	0	0	0	0
1399	120	AL AZIYYA	0	IRBID	AL AGHWA	0	0	0	0	0	0
1434	120	AL BALAWINA	4434	IRBID	AL AGHWA	263,238	418,209	444,639	473,883	562,592	684,543
1387	120	AL BAQOURA	652	IRBID	AL AGHWA	36,708	61,496	65,382	69,682	82,727	97,718
1386	120	AL FIDDIYYIN	579	IRBID	AL AGHWA	34,374	54,611	58,062	61,881	73,484	86,777
1405	120	AL HARRAWIYYA	0	IRBID	AL AGHWA	0	0	0	0	0	0
1922	120	AL JASOURA	0	IRBID	AL AGHWA	0	0	0	0	0	0
1407	120	AL JURM	0	IRBID	AL AGHWA	0	0	0	0	0	0
1392	120	AL MADRASA	0	IRBID	AL AGHWA	0	0	0	0	0	0
1393	120	AL MANSHIYYA	5446	IRBID	AL AGHWA	323,318	513,659	546,122	582,041	690,995	816,216
1411	120	AL MARAZZA	746	IRBID	AL AGHWA	44,289	70,362	74,808	79,729	94,653	111,806
1410	120	AL MASHARI	13096	IRBID	AL AGHWA	777,483	1,235,197	1,313,260	1,399,634	1,661,637	1,962,758
1408	120	AL MIDRAJ	0	IRBID	AL AGHWA	0	0	0	0	0	0
1414	120	AL QASEYB	0	IRBID	AL AGHWA	0	0	0	0	0	0
1419	120	AS SABIRA	24	IRBID	AL AGHWA	1,425	2,264	2,407	2,565	3,045	3,597
1391	120	AS SAKHINA	254	IRBID	AL AGHWA	15,079	23,957	25,471	27,146	32,228	38,068
1400	120	ASH SHAYKH HUSAY	5905	IRBID	AL AGHWA	350,568	556,962	592,150	631,096	749,234	885,009
1388	120	ASH SHUKNA ASHSHA	12640	IRBID	AL AGHWA	750,411	1,192,188	1,267,532	1,350,899	1,603,779	1,894,413
1403	120	AZ ZIMALIYYA	1034	IRBID	AL AGHWA	61,396	97,526	103,669	110,509	131,195	154,970
94	160	HIMMAT GHOR AL A	0	IRBID	AL AGHWA	0	0	0	0	0	0
90	164	KRAYMA	13832	IRBID	AL AGHWA	822,365	1,306,502	1,389,071	1,480,432	1,757,560	2,076,061
1416	120	KURKUMA	75	IRBID	AL AGHWA	4,453	7,074	7,521	8,016	9,516	11,241

Water Use Projections

91	160	MAATH	0	IRBID	AL AGHWA	0	0	0	0	0	0	0	0
1398	120	QULAY AT	0	IRBID	AL AGHWA	0	0	0	0	0	0	0	0
1406	120	SAYL AL HIMMA	281	IRBID	AL AGHWA	16,682	26,504	28,179	30,032	35,654	42,115		
1424	120	SULAYKHAT	596	IRBID	AL AGHWA	35,383	56,214	59,767	63,697	75,621	89,325		
1409	120	TABAQIT FAHL	585	IRBID	AL AGHWA	34,730	55,176	58,663	62,522	74,226	87,677		
92	160	TALL AL ARBAIN	0	IRBID	AL AGHWA	0	0	0	0	0	0	0	0
89	140	WADI AL YABIS	5266	IRBID	AL AGHWA	312,632	496,682	528,072	562,803	668,157	789,239		
97	160	WADI ZIQLAB	0	IRBID	AL AGHWA	0	0	0	0	0	0	0	0
1397	120	WAQQAS	4537	IRBID	AL AGHWA	269,353	427,924	454,968	484,892	575,660	679,980		
95	160	ZIQLAR	0	IRBID	AL AGHWA	0	0	0	0	0	0	0	0
		SUB TOTAL	74,996	IRBID	AL AGHWA	4,462,361	7,073,623	7,620,668	8,016,193	9,616,689	11,239,984		
1835	120	ABU AL QUN	375	IRBID	AL KOURA	22,263	35,370	37,605	40,078	47,580	56,203		
1774	164	AL ASHRAFIYYA	6338	IRBID	AL KOURA	376,274	597,792	636,571	677,373	804,174	949,904		
75	140	AN NUHAYR	23	IRBID	AL KOURA	1,365	2,169	2,306	2,458	2,918	3,447		
1774	120	AS SAMAT	1377	IRBID	AL KOURA	81,750	129,877	138,085	147,167	174,716	206,377		
57	140	AS SUWWAN	8	IRBID	AL KOURA	475	755	802	855	1,015	1,199		
59	140	AT TANTUR	45	IRBID	AL KOURA	2,672	4,244	4,513	4,809	5,710	6,744		
1778	120	BAYT IDIS	3765	IRBID	AL KOURA	223,520	355,110	377,552	402,384	477,708	564,277		
1771	164	DAYR ABI SAID	8322	IRBID	AL KOURA	494,060	784,920	834,526	889,413	1,055,906	1,247,255		
207	160	DAYR AL ASAL	0	IRBID	AL KOURA	0	0	0	0	0	0	0	0
61	140	ISKABEEN	12	IRBID	AL KOURA	712	1,132	1,203	1,282	1,523	1,798		
1776	120	JIFFIN	2591	IRBID	AL KOURA	153,822	244,380	259,824	276,913	328,749	388,325		
1773	120	JININ AS SAFA	2699	IRBID	AL KOURA	160,234	254,566	270,654	288,455	342,453	404,511		
1788	164	JUDAYTA	9556	IRBID	AL KOURA	567,320	901,309	958,270	1,021,297	1,212,478	1,432,200		
1780	120	KAFR ABIL	5070	IRBID	AL KOURA	300,966	478,196	508,417	541,856	643,288	759,863		
1787	120	KAFR AL MA	7245	IRBID	AL KOURA	430,121	683,339	726,525	774,309	919,255	1,085,840		
1779	120	KAFR AWAN	5597	IRBID	AL KOURA	332,263	527,902	561,264	598,179	710,155	838,847		
1771	120	KAFR KIFYA	532	IRBID	AL KOURA	31,584	50,178	53,349	56,857	67,501	79,733		
1777	120	KAFR RAKIB	3559	IRBID	AL KOURA	211,291	335,680	356,895	380,368	451,570	533,403		
60	140	KHIRBAT AL HAWI	30	IRBID	AL KOURA	1,781	2,830	3,008	3,206	3,806	4,498		
1775	120	MARHABA	1215	IRBID	AL KOURA	72,132	114,597	121,840	129,853	154,161	182,097		
58	140	RUHAYM	42	IRBID	AL KOURA	2,493	3,961	4,212	4,489	5,329	6,285		
1933	120	SAMOU	4898	IRBID	AL KOURA	230,764	461,973	491,169	523,473	621,465	734,085		
1772	164	TIBNA	4168	IRBID	AL KOURA	247,446	393,120	417,965	445,455	528,941	624,677		
1772	120	ZIMAL	2608	IRBID	AL KOURA	154,832	245,983	261,529	278,730	330,906	390,873		
		OTHERS	737	IRBID	AL KOURA	43,754	69,513	73,906	78,767	93,512	110,457		
		SUB TOTAL	70,812	IRBID	AL KOURA	4,203,966	6,678,894	7,100,888	7,568,028	8,994,717	10,612,909		
1785	120	AL IBRAHIMIYYA	329	IRBID	AL MAZAR	19,532	31,031	32,992	35,162	41,744	49,309		
1782	120	AL MAZAR ASH SHA	10406	IRBID	AL MAZAR	617,783	981,480	1,043,508	1,112,141	1,320,327	1,559,584		
1770	120	DAYR YUSUF	4936	IRBID	AL MAZAR	293,040	465,557	494,979	527,535	626,286	739,780		

Water Use Projections

1784	120	HABKA	1774	IRBID	AL MAZAR	105,319	167,321	177,896	189,596	225,087	265,877		
70	140	HAWFA AL MAZAR	937	IRBID	AL MAZAR	55,628	86,377	93,962	100,142	118,888	140,432		
1781	120	INBA	5278	IRBID	AL MAZAR	313,344	497,814	529,275	564,086	669,679	791,037		
1769	120	JUHFIYYA	1936	IRBID	AL MAZAR	114,836	182,601	194,141	206,910	245,642	290,157		
1787	164	RIHABA	5701	IRBID	AL MAZAR	338,457	537,711	571,693	609,294	723,350	854,434		
1783	120	SAMAD	815	IRBID	AL MAZAR	48,385	76,870	81,728	87,103	103,408	122,148		
1936	120	ZUBYA	2438	IRBID	AL MAZAR	144,739	229,949	244,481	260,561	309,337	365,394		
		OTHERS	691	IRBID	AL MAZAR	41,023	65,174	69,293	73,851	87,675	103,563		
		SUB TOTAL	35,241	IRBID	AL MAZAR	2,092,187	3,323,884	3,533,948	3,768,380	4,471,423	5,281,725		
1830	120	AL KHARAJ	1741	IRBID	AL WASTIY	103,360	164,209	174,587	186,089	220,900	260,931		
1756	120	HUFA AL WASTIYYA	2866	IRBID	AL WASTIY	170,149	270,317	287,401	306,304	363,642	429,540		
1757	120	KUFR AN	2061	IRBID	AL WASTIY	122,357	194,391	206,676	220,269	261,502	308,891		
1754	120	KUFR ASAD	6513	IRBID	AL WASTIY	386,884	614,298	653,120	696,076	826,378	976,132		
1389	120	MURSHID	213	IRBID	AL WASTIY	12,645	20,090	21,360	22,764	27,026	31,923		
1929	120	QUM	980	IRBID	AL WASTIY	58,181	92,432	98,274	104,737	124,344	146,877		
1755	120	QUMAYM	3979	IRBID	AL WASTIY	236,225	375,294	399,012	425,255	504,861	596,350		
1753	120	SAYDUR	1094	IRBID	AL WASTIY	64,949	103,185	109,706	116,921	138,808	163,963		
		SUB TOTAL	19,447	IRBID	AL WASTIY	1,164,529	1,834,216	1,950,134	2,078,397	2,467,460	2,914,608		
965	164	AL BUWAYDA	3840	IRBID	AR RAMTH	227,973	362,184	385,073	410,400	487,224	575,518		
2357	164	AR RAMTHA	49574	IRBID	AR RAMTH	2,943,108	4,675,754	4,971,253	5,298,218	6,290,013	7,429,876		
978	120	AR RUMAYTH	0	IRBID	AR RAMTH	0	0	0	0	0	0	0	0
1725	164	ASH SHAJARA	8927	IRBID	AR RAMTH	529,978	841,983	895,195	954,073	1,132,669	1,337,929		
1764	164	AT TURRA	12167	IRBID	AR RAMTH	722,330	1,147,575	1,220,100	1,300,347	1,543,765	1,823,522		
1371	120	ATH THUNAYBA	1757	IRBID	AR RAMTH	104,310	165,718	176,191	187,779	222,930	263,329		
1374	120	IMRAWAH	2731	IRBID	AR RAMTH	162,134	257,584	273,863	291,875	346,513	409,307		
		SUB TOTAL	78,996	IRBID	AR RAMTH	4,689,833	7,480,798	7,921,676	8,442,692	10,023,114	11,839,482		
1768	164	AT TAYYIBA	10082	IRBID	AT TAYBA	598,548	950,921	1,011,017	1,077,513	1,279,217	1,511,034		
1763	120	DAYR AS SINA	4198	IRBID	AT TAYBA	249,227	395,950	420,973	448,661	532,648	629,173		
166	140	IBSAR ABU ALI	271	IRBID	AT TAYBA	16,089	25,560	27,176	28,963	34,385	40,616		
1761	120	MAKHARABA	1142	IRBID	AT TAYBA	67,798	107,712	114,519	122,051	144,898	171,157		
1762	120	MANDAH	728	IRBID	AT TAYBA	43,220	68,664	73,003	77,805	92,370	109,109		
1760	120	SAMA	7112	IRBID	AT TAYBA	422,225	670,794	713,187	760,095	902,360	1,065,907		
1932	120	ZIBDA AL WASATIY	351	IRBID	AT TAYBA	20,838	33,106	35,198	37,513	44,535	52,606		
		SUB TOTAL	23,884	IRBID	AT TAYBA	1,417,945	2,262,707	2,395,074	2,552,601	3,030,433	3,679,601		
197	160	AL BURNUS	0	IRBID	BANI KINA	0	0	0	0	0	0	0	0
1384	120	AL MANSOURA	1900	IRBID	BANI KINA	112,759	179,205	190,531	203,062	241,074	284,761		
1730	120	AL MUKHAYBA AL F	1388	IRBID	BANI KINA	82,403	130,914	139,188	148,342	176,111	208,026		
1713	120	AL MUKHAYBA AT T	1984	IRBID	BANI KINA	117,786	187,128	196,954	212,040	251,732	297,351		

Water Use Projections

1368	120	160	AL QABUW	0	IRBID	BANI KINA	0	0	0	0	0	0
1370	120	120	AL YARMOUK	450	IRBID	BANI KINA	26,716	42,443	45,126	48,094	57,097	67,444
1924	120	120	AQRABA	2026	IRBID	BANI KINA	120,280	191,090	203,166	216,529	257,061	303,646
1367	120	120	AR RAFID	1828	IRBID	BANI KINA	108,525	172,415	183,311	195,367	231,939	273,970
200	160	160	BALAD ASH SHAYKH	0	IRBID	BANI KINA	0	0	0	0	0	0
1378	120	120	BARASHTA	201	IRBID	BANI KINA	11,933	18,968	20,156	21,482	25,503	30,125
1383	120	120	DAR AL BASHA	698	IRBID	BANI KINA	41,439	65,834	69,995	74,599	88,563	104,612
1369	120	120	HARTA	3888	IRBID	BANI KINA	230,823	366,711	389,886	415,530	493,314	582,712
1731	120	120	HATIM	4650	IRBID	BANI KINA	276,061	438,582	468,299	496,968	589,998	696,916
1376	120	120	HUBRAS	2715	IRBID	BANI KINA	161,184	256,075	272,259	290,165	344,483	406,909
1655	120	120	IBDAR	1655	IRBID	BANI KINA	98,254	156,097	165,962	176,878	208,989	248,042
1734	120	120	IZRIT	660	IRBID	BANI KINA	39,183	62,250	66,184	70,537	83,742	98,917
1373	120	120	KUFR SAWM	5711	IRBID	BANI KINA	339,051	538,654	572,696	610,363	724,619	855,933
1375	120	120	MALKA	5490	IRBID	BANI KINA	325,930	517,810	550,534	586,743	696,578	822,811
1733	120	120	MUZAYRIB	913	IRBID	BANI KINA	54,203	86,113	91,555	97,577	115,843	136,835
1368	120	120	SAHAM	4807	IRBID	BANI KINA	285,382	453,390	482,043	513,748	609,918	720,446
1732	120	120	SAMA AR RUSAN	1964	IRBID	BANI KINA	116,599	185,242	196,949	209,902	249,195	294,353
1377	120	120	SAMAR	2297	IRBID	BANI KINA	136,368	216,650	230,342	245,492	291,446	344,262
1385	120	120	SUFFIN	150	IRBID	BANI KINA	8,905	14,148	15,042	16,031	19,032	22,481
1382	120	120	UMM QAYS	3396	IRBID	BANI KINA	201,614	320,306	340,549	362,947	430,889	508,974
1372	120	120	YUBLA	2955	IRBID	BANI KINA	175,432	278,712	296,326	315,815	374,934	442,879
			OTHERS	80	IRBID	BANI KINA	4,749	7,545	8,022	8,550	10,151	11,990
			SUB TOTAL	51,806	IRBID	BANI KINA	3,075,618	4,886,273	5,195,077	5,538,763	6,573,212	7,764,398
1925	120	120	ABU AL LOQAS	907	IRBID	HARIMA	53,847	85,547	90,953	96,936	115,081	135,936
1741	120	120	AL KHIYRIYYA	0	IRBID	HARIMA	0	0	0	0	0	0
1736	120	120	AL KHURAYBA	1029	IRBID	HARIMA	61,090	97,054	103,188	109,974	130,561	154,221
1740	120	120	AL QASFAH	568	IRBID	HARIMA	33,721	53,573	56,969	60,705	72,089	85,129
1737	120	120	AS SILA	571	IRBID	HARIMA	33,899	53,856	57,260	61,026	72,449	85,578
1380	120	120	AZ ZAWIYYA	0	IRBID	HARIMA	0	0	0	0	0	0
1739	120	120	HARIMA	2799	IRBID	HARIMA	166,171	263,988	280,682	299,143	355,141	419,499
1738	120	120	KHARJA	4258	IRBID	HARIMA	252,789	401,609	426,990	455,073	540,260	638,165
			SUB TOTAL	10,132	IRBID	HARIMA	601,516	955,637	1,016,031	1,082,857	1,285,561	1,518,828
1395	120	120	AL BARIHA	0	IRBID	IRBID	0	0	0	0	0	0
1934	164	164	AL HUSN	16312	IRBID	IRBID	968,410	1,538,526	1,635,758	1,743,344	2,069,687	2,444,752
1745	120	120	AL MUGHAYYIR	7018	IRBID	IRBID	416,644	661,928	703,761	750,048	890,453	1,051,819
1927	120	120	ALAAL	3550	IRBID	IRBID	210,756	334,831	355,982	379,406	450,429	532,054
1763	164	164	AN NUAYYIMA	9996	IRBID	IRBID	593,442	942,809	1,002,393	1,068,322	1,268,305	1,498,145
1761	164	164	AS SARIH	15880	IRBID	IRBID	942,764	1,497,781	1,592,438	1,697,174	2,014,875	2,390,006
1765	120	120	AYDUN	14560	IRBID	IRBID	864,398	1,373,280	1,460,069	1,556,099	1,847,391	2,182,172
1743	120	120	BAYT RAS	11349	IRBID	IRBID	673,767	1,070,423	1,138,071	1,212,924	1,439,976	1,700,925

Water Use Projections

1768	120	120	BAYT YABA	6212	IRBID	IRBID	368,794	585,908	622,936	663,907	788,187	931,020
1764	120	120	BUSIRA	8225	IRBID	IRBID	488,302	775,771	824,798	879,046	1,043,589	1,232,717
1752	120	120	DAWQARA	3609	IRBID	IRBID	214,259	340,396	361,909	385,712	457,915	540,897
1747	120	120	FAUARA	2727	IRBID	IRBID	161,896	257,207	273,462	291,448	346,005	408,708
1744	120	120	HAKAMA	5649	IRBID	IRBID	335,370	532,806	566,479	603,737	716,752	846,641
1767	120	120	HAM	825	IRBID	IRBID	48,979	77,813	82,731	88,172	104,677	123,646
1928	120	120	HOUR	1596	IRBID	IRBID	94,751	150,533	160,046	170,572	202,503	239,200
1760	164	164	HUWWARA	9753	IRBID	IRBID	579,016	919,890	978,025	1,042,351	1,237,473	1,461,725
1727	164	164	IRBID	208201	IRBID	IRBID	12,360,473	19,637,242	20,878,282	22,251,468	26,416,810	31,204,010
1748	120	120	ISARA	735	IRBID	IRBID	43,635	69,324	73,705	78,553	93,258	110,158
1758	120	120	JAMHA	1646	IRBID	IRBID	97,720	155,249	165,060	175,916	208,947	246,893
1751	120	120	JIJIN	2141	IRBID	IRBID	127,107	201,936	214,698	228,819	271,653	320,881
1762	164	164	KITIM	4157	IRBID	IRBID	246,793	392,083	416,962	444,279	527,445	623,028
1742	120	120	KUFR JAYTZ	2690	IRBID	IRBID	159,700	253,717	269,752	287,494	341,311	403,162
1750	120	120	KUFR RAHTA	988	IRBID	IRBID	58,656	93,187	99,076	105,592	125,359	148,076
1758	164	164	KUFR YUBA	8798	IRBID	IRBID	522,319	829,816	882,259	940,286	1,116,302	1,318,595
1926	120	120	MARU	2386	IRBID	IRBID	141,652	225,044	239,267	255,004	302,739	357,600
2392	164	164	MUKHAYYAM AL HU	14192	IRBID	IRBID	842,550	1,338,571	1,423,166	1,516,768	1,800,699	2,127,018
1766	120	120	NATIFA	1374	IRBID	IRBID	81,572	129,594	137,784	146,846	174,335	205,927
1759	164	164	SAL	5182	IRBID	IRBID	307,645	488,759	519,648	553,826	657,499	776,649
1931	120	120	SAUM ASH SHUNNA	3800	IRBID	IRBID	225,598	358,411	381,062	406,125	482,149	569,523
1786	120	120	SHATANA	165	IRBID	IRBID	9,796	15,563	16,546	17,634	20,935	24,729
1746	120	120	TUQBULL	360	IRBID	IRBID	21,372	33,955	36,101	38,475	45,677	53,955
212	160	160	UMM AL ABAR	0	IRBID	IRBID	0	0	0	0	0	0
1390	120	120	UMM AL JADAYIL	660	IRBID	IRBID	39,183	62,250	66,184	70,537	83,742	98,917
1749	120	120	ZAHAR	3304	IRBID	IRBID	196,152	311,629	331,323	353,115	419,216	495,185
211	150	150	ZIBDA	0	IRBID	IRBID	0	0	0	0	0	0
1759	120	120	ZIBDAT FARKUH	1586	IRBID	IRBID	94,158	149,589	159,043	169,504	201,234	237,701
1735	120	120	AL MUSHYIRIFAH	0	IRBID	IRBID	0	0	0	0	0	0
199	160	160	AL QUSAYRIN	0	IRBID	IRBID	0	0	0	0	0	0
1402	120	120	ALIYA	0	IRBID	IRBID	0	0	0	0	0	0
			OTHERS	218	IRBID	IRBID	12,942	20,561	21,961	23,299	27,660	32,673
			SUB TOTAL	379,844	IRBID	IRBID	22,560,571	36,826,382	38,090,547	40,596,803	48,196,084	56,925,910
			GRAND TOTAL	745,158	IRBID	IRBID	44,238,626	70,282,314	74,724,034	79,638,713	94,546,602	111,680,144
1476	120	120	AD DAHAMSHA	0	JARASH	JARASH	0	0	0	0	0	0
1811	120	120	AD DIHIYYR	0	JARASH	JARASH	0	0	0	0	0	0
1834	120	120	AL ABARA	341	JARASH	JARASH	20,244	32,163	34,195	36,444	43,267	51,107
1475	120	120	AL FARAH	0	JARASH	JARASH	0	0	0	0	0	0
256	150	150	AL FAYHAMUSHAY	400	JARASH	JARASH	23,747	37,727	40,112	42,750	50,753	59,950
139	140	140	AL HADDADA	1538	JARASH	JARASH	91,308	145,062	154,230	164,374	195,143	230,507

Water Use Projections

1432	120	AL HUSAYNIYYAT	275	JARASH	JARASH	16,326	25,938	27,577	29,391	34,892	41,215
1714	120	AL JAZIYA	211	JARASH	JARASH	12,527	19,901	21,159	22,551	26,772	31,624
1816	120	AL JAZZAZA	1020	JARASH	JARASH	60,555	96,205	102,285	109,012	129,419	152,872
240	140	AL JIBARAT	1164	JARASH	JARASH	69,104	109,787	116,725	124,402	147,690	174,454
1806	120	AL KITTA	4428	JARASH	JARASH	262,881	417,643	444,037	473,242	561,830	663,644
1835	120	AL KUFAYR	1280	JARASH	JARASH	75,991	120,728	128,358	136,800	162,408	191,839
1814	120	AL MADDAL	558	JARASH	JARASH	33,127	52,630	55,956	59,636	70,800	83,630
1465	120	AL MANAT	250	JARASH	JARASH	14,842	23,580	25,070	26,719	31,720	37,469
143	155	AL MANAIT	0	JARASH	JARASH	0	0	0	0	0	0
1840	120	AL MANSHIYYA	707	JARASH	JARASH	41,973	66,683	70,898	75,561	88,705	105,961
1838	120	AL MASTABA	2254	JARASH	JARASH	133,815	212,594	226,030	240,896	285,990	337,817
1485	120	AL MAYDAN	0	JARASH	JARASH	0	0	0	0	0	0
1439	120	AL MUKHABTHA	0	JARASH	JARASH	0	0	0	0	0	0
1422	120	AL MUSHAYRIFA	563	JARASH	JARASH	33,424	53,101	56,457	60,171	71,434	84,379
1417	120	AL MUSHAYRIFA AL	1121	JARASH	JARASH	66,552	105,731	112,413	119,807	142,234	168,009
1446	120	AL WATAYA	0	JARASH	JARASH	0	0	0	0	0	0
1815	120	AMAMA	102	JARASH	JARASH	6,056	9,621	10,229	10,901	12,942	15,287
1832	120	AN NABI HOUD	625	JARASH	JARASH	37,105	58,949	62,675	66,797	79,301	93,672
1836	120	ANABA	79	JARASH	JARASH	4,690	7,451	7,922	8,443	10,024	11,840
1473	120	AR RAHMANIYYA	589	JARASH	JARASH	34,968	55,554	59,065	62,949	74,733	88,276
1833	120	AR RASHAYDA	1143	JARASH	JARASH	67,858	107,806	114,619	122,158	145,025	171,306
1433	120	AR RAYYASHA	321	JARASH	JARASH	19,057	30,276	32,190	34,307	40,729	48,110
1809	120	ASUR	503	JARASH	JARASH	29,862	47,442	50,441	53,758	63,821	75,367
1775	164	BALILA	4097	JARASH	JARASH	243,231	386,424	410,845	437,867	519,833	614,036
1826	120	BURMA	3726	JARASH	JARASH	221,205	351,431	373,641	398,216	472,760	558,432
1436	120	DAYR AJLUN	0	JARASH	JARASH	0	0	0	0	0	0
1808	120	DAYR AL LIYYAT	1847	JARASH	JARASH	109,653	174,207	185,216	197,398	234,350	276,818
142	140	DHAHR AS SARW	2745	JARASH	JARASH	162,965	258,905	275,267	293,372	348,289	411,405
1812	120	DIBBIN	42	JARASH	JARASH	2,493	3,961	4,212	4,489	5,329	6,265
1437	120	ESKAN ALQABOW	0	JARASH	JARASH	0	0	0	0	0	0
1442	120	HAMTA	387	JARASH	JARASH	22,975	36,501	38,808	41,361	49,103	58,001
141	140	JABA	397	JARASH	JARASH	23,569	37,445	39,811	42,429	50,372	59,500
1830	164	JARASH	21244	JARASH	JARASH	1,261,213	2,003,706	2,130,337	2,270,451	2,695,466	3,183,833
1813	120	JIMLA	468	JARASH	JARASH	27,784	44,141	46,931	50,017	59,360	70,141
1839	120	JUBBA	2423	JARASH	JARASH	143,849	228,534	242,977	258,958	307,433	363,146
1788	120	KAFR KHALL	4609	JARASH	JARASH	273,627	434,715	462,188	492,587	584,796	690,771
1435	120	KHIRBAT AD DILATY	0	JARASH	JARASH	0	0	0	0	0	0
1425	120	KHIRBAT AL KAWM	0	JARASH	JARASH	0	0	0	0	0	0
263	160	KHIRBAT ASH SHAW	418	JARASH	JARASH	24,816	39,425	41,917	44,674	53,036	62,648
1825	120	KHUSHAYBA	915	JARASH	JARASH	54,322	86,302	91,756	97,791	116,096	137,135
1448	120	KHUSHAYBA ASH SH	0	JARASH	JARASH	0	0	0	0	0	0
1837	120	MARAMAH	162	JARASH	JARASH	9,618	15,280	16,245	17,314	20,555	24,280

Water Use Projections

1842	120	MARSA	2292	JARASH	JARASH	136,071	216,178	229,840	244,957	290,812	343,512
1444	120	MASHTAL FAYSAL	180	JARASH	JARASH	10,686	16,977	18,050	19,237	22,839	26,977
1810	120	MIQBILA	1257	JARASH	JARASH	74,626	118,559	126,051	134,342	159,490	188,392
1829	164	MUKHAYYAM GHAZ	13047	JARASH	JARASH	774,574	1,230,576	1,308,346	1,394,397	1,655,420	1,955,412
2360	164	MUKHAYYAM SUF	9506	JARASH	JARASH	564,352	898,593	953,256	1,015,953	1,206,133	1,424,707
1807	120	NAHLA	2618	JARASH	JARASH	155,425	246,926	262,532	279,799	332,175	392,371
1817	120	NAJDA	191	JARASH	JARASH	11,339	18,015	19,153	20,413	24,234	28,626
1776	164	QAQAFA	3448	JARASH	JARASH	204,701	325,211	345,764	368,505	437,487	516,767
1805	120	RIMUN	4789	JARASH	JARASH	264,313	451,692	480,236	511,824	607,634	717,749
1804	120	SAKIB	8273	JARASH	JARASH	491,151	780,298	829,612	884,176	1,049,689	1,239,911
1828	164	SUF	10190	JARASH	JARASH	604,960	961,107	1,021,848	1,089,056	1,292,920	1,527,221
1841	120	TALATAR RUZZ	873	JARASH	JARASH	51,828	82,340	87,544	93,302	110,767	130,840
140	140	THUHRAT ASFUR	120	JARASH	JARASH	7,124	11,318	12,034	12,825	15,228	17,985
1443	120	ULAYMUN	612	JARASH	JARASH	36,333	57,723	61,371	65,407	77,651	91,723
1829	120	UMM QANTARA	391	JARASH	JARASH	23,213	36,879	39,209	41,788	49,611	58,601
1830	120	UMM QANTARA AL GO	0	JARASH	JARASH	0	0	0	0	0	0
1831	120	UMM QANTARA ASH O	0	JARASH	JARASH	0	0	0	0	0	0
257	140	ZAQREYT	430	JARASH	JARASH	25,528	40,557	43,120	45,956	54,559	64,446
1423	120	UMM ZAYTUNA	371	JARASH	JARASH	22,026	34,982	37,204	39,651	47,073	55,603
		OTHERS	2073	JARASH	JARASH	123,070	195,523	207,879	221,552	263,025	310,690
		GRAND TOTAL	123,613	JARASH	JARASH	7,338,664	11,889,014	12,395,844	13,211,131	15,684,176	18,526,430
1589	120	ABU DANNAH	602	MAAN	AIL	35,740	56,780	60,368	64,339	76,383	90,224
1593	120	AIL	906	MAAN	AIL	53,787	85,453	90,853	96,829	114,954	135,786
1595	120	AL FARDHAKH	959	MAAN	AIL	56,934	90,452	96,168	102,493	121,679	143,730
1645	120	AS SADAQA	385	MAAN	AIL	22,857	36,313	38,608	41,147	48,849	57,702
1592	120	BASTA	1084	MAAN	AIL	64,355	102,241	108,703	115,852	137,539	162,464
2445	129	BEER AL BETAR	46	MAAN	AIL	2,731	4,339	4,613	4,916	5,837	6,894
1588	120	EL QA	1392	MAAN	AIL	82,640	131,292	139,589	148,770	176,619	208,625
		SUB TOTAL	5,374	MAAN	AIL	319,044	506,869	538,902	574,346	681,860	805,425
1911	120	AL FUJAYJ	17	MAAN	AL HUSAY	1,009	1,603	1,705	1,817	2,157	2,548
1578	120	AL HASHIMIYYA	1138	MAAN	AL HUSAY	67,561	107,335	114,118	121,624	144,391	170,557
2329	164	AL HUSAYNIYYA	0	MAAN	AL HUSAY	0	0	0	0	0	0
2330	164	AL HUSAYNIYYA	0	MAAN	AL HUSAY	0	0	0	0	0	0
2331	164	AL HUSAYNIYYA	4337	MAAN	AL HUSAY	257,479	409,060	434,912	463,517	550,284	650,005
2332	164	AL HUSAYNIYYA	0	MAAN	AL HUSAY	0	0	0	0	0	0
9	140	AL MUHAMMADIYY	359	MAAN	AL HUSAY	21,313	33,860	36,000	38,368	45,550	53,805
1581	120	MUDAYBEE	515	MAAN	AL HUSAY	30,575	48,574	51,644	55,041	65,344	77,185
10	140	UNAYZA	102	MAAN	AL HUSAY	6,056	9,621	10,229	10,901	12,942	15,287
		SUB TOTAL	6,468	MAAN	AL HUSAY	383,992	610,063	648,607	691,267	820,668	969,388

Water Use Projections

1574	120	ABU MAKHTOUB	226	MAAN	ASH SHOB	13,417	21,316	22,663	24,154	28,675	33,872
1582	120	AL BAQA	0	MAAN	ASH SHOB	0	0	0	0	0	0
2443	130	AL HADDADA	133	MAAN	ASH SHOB	7,896	12,544	13,337	14,214	16,875	19,933
1576	120	AL JAYA	37	MAAN	ASH SHOB	2,197	3,490	3,710	3,954	4,695	5,545
1575	120	AL JUHAIR	507	MAAN	ASH SHOB	30,100	47,820	50,842	54,186	64,329	75,986
205	160	AL KHIRBA AS SAMR	0	MAAN	ASH SHOB	0	0	0	0	0	0
1572	120	AL MANSOURA	849	MAAN	ASH SHOB	50,403	80,077	85,137	90,737	107,722	127,243
1573	120	AL MUQARIYYA	791	MAAN	ASH SHOB	46,960	74,606	79,321	84,538	100,363	118,551
2371	164	ASH SHAWBAK (NIJI	1623	MAAN	ASH SHOB	96,473	153,268	162,954	173,672	206,182	243,546
2446	130	AZ ZAYTOUNA	86	MAAN	ASH SHOB	5,106	8,111	8,624	9,191	10,912	12,889
1579	120	AZ ZUBAYRIYYA	708	MAAN	ASH SHOB	42,033	66,778	70,998	75,667	89,832	106,111
204	160	BADBADA	0	MAAN	ASH SHOB	0	0	0	0	0	0
203	150	BAYDA	322	MAAN	ASH SHOB	19,116	30,371	32,290	34,414	40,856	48,280
2419	130	BEER ABU AL ALAQ	13	MAAN	ASH SHOB	772	1,226	1,304	1,389	1,649	1,948
1583	120	BEER AD DBAGHAT	1066	MAAN	ASH SHOB	63,286	100,544	106,898	113,929	135,255	159,766
242	160	BEER IBN JAZI	0	MAAN	ASH SHOB	0	0	0	0	0	0
1643	120	BEER KHIDAD	690	MAAN	ASH SHOB	40,964	65,080	69,193	73,744	87,548	103,413
1923	120	HUWWALA	656	MAAN	ASH SHOB	38,945	61,873	65,783	70,110	83,234	98,318
2442	130	MUTHALLATH ASH S	1134	MAAN	ASH SHOB	67,323	106,957	113,717	121,196	143,683	169,958
244	170	SEEHAN	0	MAAN	ASH SHOB	0	0	0	0	0	0
1580	120	SHIMAKH	1430	MAAN	ASH SHOB	84,896	134,876	143,400	152,831	181,440	214,320
		OTHERS	16	MAAN	ASH SHOB	950	1,509	1,604	1,710	2,030	2,398
		SUB TOTAL	10,289	MAAN	ASH SHOB	610,837	970,445	1,031,776	1,089,636	1,306,482	1,642,088
2417	130	ABU AL LUSON	664	MAAN	MAAN	39,420	62,628	66,586	70,965	84,249	98,517
1586	120	ADRUH	784	MAAN	MAAN	46,544	73,946	78,619	83,790	99,475	117,502
2420	130	AL ASHARI	47	MAAN	MAAN	2,790	4,433	4,713	5,023	5,963	7,044
2372	164	AL JAFR	2639	MAAN	MAAN	156,672	248,907	264,637	282,043	334,840	385,519
1644	120	AL JARBA AL KABIR	357	MAAN	MAAN	21,194	33,872	35,800	38,154	45,287	53,505
1585	120	AL JARBA AL SAGHI	132	MAAN	MAAN	7,837	12,450	13,237	14,107	16,748	19,783
1584	120	AL MANSHIYYA	1234	MAAN	MAAN	74,447	118,276	125,750	134,021	159,109	187,943
1916	120	AL MUDAWWARA	774	MAAN	MAAN	45,951	73,003	77,616	82,721	98,206	116,003
1598	120	AL MURAYGHAIH	1746	MAAN	MAAN	103,656	164,680	175,088	186,604	221,535	261,681
1915	120	AL QASIMTYA	206	MAAN	MAAN	12,230	19,430	20,658	22,016	26,138	30,874
1597	120	AL QURAYN	692	MAAN	MAAN	41,083	65,269	69,393	73,957	87,802	103,713
2421	130	ASH SHEEDIYYA	1158	MAAN	MAAN	68,748	109,221	116,124	123,761	146,929	173,555
98	140	AT TAOUNA	40	MAAN	MAAN	2,375	3,773	4,011	4,275	5,075	5,995
2432	130	AT TUME'A	65	MAAN	MAAN	3,859	6,131	6,518	6,947	8,247	9,742
2422	130	BATIN AL GHOUL	184	MAAN	MAAN	10,924	17,355	18,451	19,695	23,346	27,577
2423	130	BAYER	3739	MAAN	MAAN	221,977	352,658	374,945	399,605	474,409	560,381
96	140	BEER HAMAD	418	MAAN	MAAN	24,816	39,425	41,917	44,674	53,036	62,648
2418	130	DLAGHA	500	MAAN	MAAN	29,684	47,159	50,140	53,437	63,441	74,937

Water Use Projections

100	160	HITTYA	0	MAAN	MAAN	0	0	0	0	0	0
2328	164	MAAN	22845	MAAN	MAAN	1,356,262	2,154,710	2,290,884	2,441,558	2,898,603	3,423,882
102	155	QA AS SUAYDIYYIN	0	MAAN	MAAN	0	0	0	0	0	0
1600	120	RAS AN NAQAB	457	MAAN	MAAN	27,131	43,104	45,828	48,842	57,985	68,493
1646	120	SUWAYMRA	346	MAAN	MAAN	20,541	32,634	34,697	36,979	43,901	51,857
1599	120	TASAN	374	MAAN	MAAN	22,204	35,275	37,505	39,971	47,454	56,053
1596	120	WUHAYDA	343	MAAN	MAAN	20,363	32,351	34,396	36,658	43,520	51,407
		OTHERS	92	MAAN	MAAN	5,462	8,677	9,226	9,832	11,673	13,788
		SUB TOTAL	39,856	MAAN	MAAN	2,366,170	3,769,166	3,998,738	4,269,607	5,066,980	6,073,386
2433	130	AL HAYY	2	MAAN	WADI MUS	119	189	201	214	254	300
1594	130	AR RAJIF	985	MAAN	WADI MUS	58,477	92,904	98,775	105,272	124,978	147,626
1590	120	AT TAYYIBAH	3619	MAAN	WADI MUS	214,853	341,339	362,911	386,780	459,183	542,396
2434	130	AYN AMOUN	153	MAAN	WADI MUS	9,083	14,431	15,343	16,352	19,413	22,931
31	140	PETRA	0	MAAN	WADI MUS	0	0	0	0	0	0
266	140	UMM SEEHAUN	954	MAAN	WADI MUS	56,637	89,980	95,667	101,959	121,045	142,980
1587	120	WADI MUSA	11210	MAAN	WADI MUS	665,515	1,057,312	1,124,133	1,198,068	1,422,339	1,680,093
101	160	DAWR	0	MAAN	WADI MUS	0	0	0	0	0	0
		OTHERS	10	MAAN	WADI MUS	594	943	1,003	1,069	1,269	1,499
		SUB TOTAL	16,933	MAAN	WADI MUS	1,006,278	1,597,098	1,698,032	1,809,713	2,148,481	2,537,824
		GRAND TOTAL	78,920	MAAN		4,886,321	7,443,630	7,914,064	8,434,570	10,013,471	11,825,091
1668	120	AL AREESH	806	MADABA	MADABA	47,851	76,021	80,825	86,141	102,266	120,799
214	160	AL FALIHA	0	MADABA	MADABA	0	0	0	0	0	0
1334	164	AL FAYHA	1020	MADABA	MADABA	60,555	96,205	102,285	109,012	129,419	152,872
1311	164	AL FAYSALIYYA	3357	MADABA	MADABA	199,298	316,628	336,638	358,779	425,940	503,129
1369	164	AL HILALIYYA	1520	MADABA	MADABA	90,239	143,364	152,425	162,450	192,860	227,809
1372	164	AL HILALIYYA	0	MADABA	MADABA	0	0	0	0	0	0
1373	164	AL HILALIYYA	0	MADABA	MADABA	0	0	0	0	0	0
2387	164	AL KHALDIYYA	263	MADABA	MADABA	15,614	24,806	26,373	28,108	33,370	39,417
2479	130	AL KHATTABIYYA	755	MADABA	MADABA	44,823	71,211	75,711	80,691	95,795	113,155
1674	120	AL MAHOUTIYYA	2571	MADABA	MADABA	152,635	242,493	257,818	274,775	328,212	385,327
1875	120	AL MARAJMAT	0	MADABA	MADABA	0	0	0	0	0	0
104	140	AL MUKHAYYAT	38	MADABA	MADABA	2,256	3,584	3,811	4,061	4,821	5,695
1511	120	AL MUROUJ	0	MADABA	MADABA	0	0	0	0	0	0
1271	164	AL MUSHAQQAR	0	MADABA	MADABA	0	0	0	0	0	0
1275	164	AL MUSHAQQAR	2085	MADABA	MADABA	123,782	196,654	209,063	222,834	264,547	312,488
1276	164	AL MUSHAQQAR	0	MADABA	MADABA	0	0	0	0	0	0
1280	164	AL MUSHAQQAR	0	MADABA	MADABA	0	0	0	0	0	0
2480	130	AL QUWAYTIYYA	13	MADABA	MADABA	772	1,226	1,304	1,389	1,649	1,948
1362	164	AL WAHA	91	MADABA	MADABA	5,402	8,583	9,125	9,726	11,546	13,639

Water Use Projections

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Water Use Projections

1392	164	AL MUSAYDAT	0	MADABA	THEEBAN	0	0	0	0	0	0	0
1417	164	AL MUSHARFA	277	MADABA	THEEBAN	16,445	26,126	27,777	29,604	35,146	41,515	0
1422	164	AL MUSHARFA	0	MADABA	THEEBAN	0	0	0	0	0	0	0
2482	120	AL QASIMIYYA	0	MADABA	THEEBAN	0	0	0	0	0	0	0
2384	164	AL QRAYYAT/AL HA	422	MADABA	THEEBAN	25,053	39,802	42,318	45,101	53,544	63,247	0
2477	130	AL QUBAYBA	41	MADABA	THEEBAN	2,434	3,867	4,111	4,382	5,202	6,145	0
1410	164	AL WALA	113	MADABA	THEEBAN	6,709	10,658	11,332	12,077	14,338	16,936	0
1412	164	AL WALA	0	MADABA	THEEBAN	0	0	0	0	0	0	0
1527	120	AMMOURYA	61	MADABA	THEEBAN	3,621	5,753	6,117	6,519	7,740	9,142	0
2475	130	AN NAMYA	203	MADABA	THEEBAN	12,052	19,147	20,357	21,696	25,757	30,425	0
1528	120	AN NAQUBA	0	MADABA	THEEBAN	0	0	0	0	0	0	0
1403	164	AN NUZHA	357	MADABA	THEEBAN	21,194	33,672	35,800	38,154	45,297	53,505	0
129	160	AQRABA	0	MADABA	THEEBAN	0	0	0	0	0	0	0
128	155	AR RIHANA	0	MADABA	THEEBAN	0	0	0	0	0	0	0
2486	120	ARA ER	24	MADABA	THEEBAN	1,425	2,264	2,407	2,565	3,045	3,597	0
2476	130	AS SINN	213	MADABA	THEEBAN	12,645	20,090	21,360	22,764	27,026	31,923	0
1435	164	ASH SHAQIQ	770	MADABA	THEEBAN	45,713	72,625	77,215	82,294	97,699	115,403	0
2470	130	ATH THUHAYBA AL	218	MADABA	THEEBAN	12,942	20,561	21,861	23,299	27,660	32,673	0
1391	164	ATTRUZ	49	MADABA	THEEBAN	2,909	4,622	4,914	5,237	6,217	7,344	0
118	140	AZ ZAHRA	199	MADABA	THEEBAN	11,814	18,769	19,956	21,268	25,249	29,825	0
2474	130	BALLOUTA	385	MADABA	THEEBAN	22,857	36,313	38,608	41,147	48,849	57,702	0
1427	164	BARZAH	482	MADABA	THEEBAN	28,615	45,462	48,335	51,514	61,157	72,238	0
1439	164	DHIBAN	5013	MADABA	THEEBAN	297,612	472,820	502,701	535,764	636,056	751,321	0
1378	164	DULAYLAT AL HAM	608	MADABA	THEEBAN	36,096	57,346	60,970	64,980	77,144	91,124	0
1661	120	FALHA	331	MADABA	THEEBAN	19,651	31,219	33,192	35,376	41,998	49,608	0
1528	120	HALQ ASH SHAQIQ	514	MADABA	THEEBAN	30,515	48,480	51,544	54,934	65,217	77,035	0
261	170	JABAL BANI HAMIDA	0	MADABA	THEEBAN	0	0	0	0	0	0	0
2473	130	JARWAN	223	MADABA	THEEBAN	13,239	21,033	22,362	23,833	28,296	33,422	0
1424	164	JUDAYDA	577	MADABA	THEEBAN	34,255	54,422	57,861	61,667	73,210	86,478	0
1382	164	LIBB	2452	MADABA	THEEBAN	145,570	231,269	245,885	262,057	311,113	367,492	0
1385	164	LIBB	0	MADABA	THEEBAN	0	0	0	0	0	0	0
1397	164	MUKAWIR	548	MADABA	THEEBAN	32,534	51,687	54,953	58,567	69,531	82,131	0
1388	164	MULAYH	3955	MADABA	THEEBAN	234,800	373,030	396,605	422,690	501,815	592,753	0
1389	164	MULAYH	0	MADABA	THEEBAN	0	0	0	0	0	0	0
1390	164	MULAYH	0	MADABA	THEEBAN	0	0	0	0	0	0	0
1418	164	SABRA	0	MADABA	THEEBAN	0	0	0	0	0	0	0
124	140	UMM AD DAKAKIN	180	MADABA	THEEBAN	0	0	0	0	0	0	0
127	155	UMM SHAJARA/AR RI	45	MADABA	THEEBAN	10,686	16,977	18,050	19,237	22,839	26,977	0
1907	120	UMM SHAJARA	0	MADABA	THEEBAN	0	0	0	0	0	0	0
1872	120	UMM SHUAYRA	216	MADABA	THEEBAN	12,823	20,373	21,660	23,085	27,406	32,373	0
1419	164	UMM ZABARA / AN N	92	MADABA	THEEBAN	5,462	8,677	9,226	9,832	11,673	13,788	0
1660	120	WADI AL WALA	0	MADABA	THEEBAN	0	0	0	0	0	0	0

Water Use Projections

	OTHERS	1143	MADABA	THEEBAN	67,858	107,806	114,619	122,158	145,025	171,308
	SUB TOTAL	23,480	MADABA	THEEBAN	1,393,960	2,214,602	2,364,561	2,509,423	2,979,172	3,519,052
	GRAND TOTAL	105,395	MADABA		6,257,088	9,940,717	10,568,963	11,284,084	13,372,663	15,796,018
	TOTAL JORDAN	4,105,037			243,707,755	387,181,543	411,650,849	438,725,563	520,862,356	616,240,167

Annexes 4 Demand Projections

Demand Projections

GOVERNORATE	DISTRICT	WATER DEMAND(CM)				2009				2010				2015				2020			
YEAR		Demand	Losses 50%	Demand	Losses 40%	Demand	Losses 40%	Demand	Losses 40%	Demand	Losses 40%	Demand	Losses 40%	Demand	Losses 40%	Demand	Losses 40%	Demand	Losses 40%	Demand	Losses 40%
AL QUN	AL QUN	4,362,237	3,693,937	3,693,937	3,030,308	4,098,134	3,278,508	4,098,134	3,278,508	4,098,134	3,278,508	4,098,134	3,278,508	4,098,134	3,278,508	4,098,134	3,278,508	4,098,134	3,278,508	4,098,134	3,278,508
AL QUN	KUPRANIA	1,224,465	972,661	972,661	790,719	1,137,545	910,036	1,137,545	910,036	1,137,545	910,036	1,137,545	910,036	1,137,545	910,036	1,137,545	910,036	1,137,545	910,036	1,137,545	910,036
TTL AL QUN		5,586,702	4,666,600	4,666,600	4,021,027	5,235,679	4,188,544	5,235,679	4,188,544	5,235,679	4,188,544	5,235,679	4,188,544	5,235,679	4,188,544	5,235,679	4,188,544	5,235,679	4,188,544	5,235,679	4,188,544
AL AQABA	AL AQABA	3,697,200	2,957,760	2,957,760	2,366,208	3,434,732	2,747,786	3,434,732	2,747,786	3,434,732	2,747,786	3,434,732	2,747,786	3,434,732	2,747,786	3,434,732	2,747,786	3,434,732	2,747,786	3,434,732	2,747,786
AL AQABA	AL QUWAYRA	1,467,102	1,173,682	1,173,682	958,958	1,302,938	1,042,351	1,302,938	1,042,351	1,302,938	1,042,351	1,302,938	1,042,351	1,302,938	1,042,351	1,302,938	1,042,351	1,302,938	1,042,351	1,302,938	1,042,351
AL AQABA	WADI ARABA	195,202	156,162	156,162	126,930	181,345	145,076	181,345	145,076	181,345	145,076	181,345	145,076	181,345	145,076	181,345	145,076	181,345	145,076	181,345	145,076
TTL AL AQABA		5,359,504	4,287,504	4,287,504	3,451,196	4,918,915	3,936,174	4,918,915	3,936,174	4,918,915	3,936,174	4,918,915	3,936,174	4,918,915	3,936,174	4,918,915	3,936,174	4,918,915	3,936,174	4,918,915	3,936,174
AL BALQA	AL ARDA	429,387	341,245	341,245	277,000	399,092	319,274	399,092	319,274	399,092	319,274	399,092	319,274	399,092	319,274	399,092	319,274	399,092	319,274	399,092	319,274
AL BALQA	AL BALQA	1,102,643	881,956	881,956	705,562	1,031,434	825,147	1,031,434	825,147	1,031,434	825,147	1,031,434	825,147	1,031,434	825,147	1,031,434	825,147	1,031,434	825,147	1,031,434	825,147
AL BALQA	DIR ALILA	2,369,771	1,895,816	1,895,816	1,516,656	2,245,810	1,756,643	2,245,810	1,756,643	2,245,810	1,756,643	2,245,810	1,756,643	2,245,810	1,756,643	2,245,810	1,756,643	2,245,810	1,756,643	2,245,810	1,756,643
AL BALQA	SOUTH SHUNA	1,993,339	1,594,672	1,594,672	1,275,738	1,881,841	1,425,473	1,881,841	1,425,473	1,881,841	1,425,473	1,881,841	1,425,473	1,881,841	1,425,473	1,881,841	1,425,473	1,881,841	1,425,473	1,881,841	1,425,473
AL BALQA	ZAY	401,149	316,916	316,916	253,532	372,674	298,139	372,674	298,139	372,674	298,139	372,674	298,139	372,674	298,139	372,674	298,139	372,674	298,139	372,674	298,139
TTL AL BALQA		16,236,489	12,897,560	12,897,560	10,353,929	15,239,119	11,991,648	15,239,119	11,991,648	15,239,119	11,991,648	15,239,119	11,991,648	15,239,119	11,991,648	15,239,119	11,991,648	15,239,119	11,991,648	15,239,119	11,991,648
AL KARAK	AL KARAK	3,933,126	3,146,502	3,146,502	2,517,189	3,254,434	2,603,369	3,254,434	2,603,369	3,254,434	2,603,369	3,254,434	2,603,369	3,254,434	2,603,369	3,254,434	2,603,369	3,254,434	2,603,369	3,254,434	2,603,369
AL KARAK	AL MAZAR AL JANOUBIYA	728,208	578,556	578,556	471,519	608,137	486,504	608,137	486,504	608,137	486,504	608,137	486,504	608,137	486,504	608,137	486,504	608,137	486,504	608,137	486,504
AL KARAK	AL MAZRA A	981,887	785,508	785,508	636,407	815,344	652,273	815,344	652,273	815,344	652,273	815,344	652,273	815,344	652,273	815,344	652,273	815,344	652,273	815,344	652,273
AL KARAK	AL QASR	981,887	785,508	785,508	636,407	815,344	652,273	815,344	652,273	815,344	652,273	815,344	652,273	815,344	652,273	815,344	652,273	815,344	652,273	815,344	652,273
AL KARAK	AS SADI	923,230	738,584	738,584	590,865	752,978	599,388	752,978	599,388	752,978	599,388	752,978	599,388	752,978	599,388	752,978	599,388	752,978	599,388	752,978	599,388
AL KARAK	AYY	808,889	647,104	647,104	517,689	658,464	526,771	658,464	526,771	658,464	526,771	658,464	526,771	658,464	526,771	658,464	526,771	658,464	526,771	658,464	526,771
AL KARAK	FOOU	669,390	535,512	535,512	436,411	558,017	446,411	558,017	446,411	558,017	446,411	558,017	446,411	558,017	446,411	558,017	446,411	558,017	446,411	558,017	446,411
TTL AL KARAK		10,073,796	8,002,185	8,002,185	6,402,185	10,073,796	8,002,185	10,073,796	8,002,185	10,073,796	8,002,185	10,073,796	8,002,185	10,073,796	8,002,185	10,073,796	8,002,185	10,073,796	8,002,185	10,073,796	8,002,185
AL MAFRAQ	AL MAFRAQ	6,521,038	5,216,827	5,216,827	4,173,462	5,808,137	4,646,504	5,808,137	4,646,504	5,808,137	4,646,504	5,808,137	4,646,504	5,808,137	4,646,504	5,808,137	4,646,504	5,808,137	4,646,504	5,808,137	4,646,504
AL MAFRAQ	AR RWESHID	728,208	578,556	578,556	471,519	608,137	486,504	608,137	486,504	608,137	486,504	608,137	486,504	608,137	486,504	608,137	486,504	608,137	486,504	608,137	486,504
AL MAFRAQ	BAL AMA	837,920	669,536	669,536	535,627	688,137	550,509	688,137	550,509	688,137	550,509	688,137	550,509	688,137	550,509	688,137	550,509	688,137	550,509	688,137	550,509
AL MAFRAQ	SABHA	1,331,214	1,064,971	1,064,971	851,976	1,115,344	891,871	1,115,344	891,871	1,115,344	891,871	1,115,344	891,871	1,115,344	891,871	1,115,344	891,871	1,115,344	891,871	1,115,344	891,871
AL MAFRAQ	SAMA AS SARHAN	2,437,195	1,949,751	1,949,751	1,559,807	2,218,907	1,775,123	2,218,907	1,775,123	2,218,907	1,775,123	2,218,907	1,775,123	2,218,907	1,775,123	2,218,907	1,775,123	2,218,907	1,775,123	2,218,907	1,775,123
TTL AL MAFRAQ		16,107,743	12,936,872	12,936,872	10,353,929	15,239,119	11,991,648	15,239,119	11,991,648	15,239,119	11,991,648	15,239,119	11,991,648	15,239,119	11,991,648	15,239,119	11,991,648	15,239,119	11,991,648	15,239,119	11,991,648
AMMAN	AL JIZA	1,984,985	1,587,988	1,587,988	1,270,394	1,842,261	1,473,811	1,842,261	1,473,811	1,842,261	1,473,811	1,842,261	1,473,811	1,842,261	1,473,811	1,842,261	1,473,811	1,842,261	1,473,811	1,842,261	1,473,811
AMMAN	AMMAN	1,881,171	1,504,985	1,504,985	1,202,394	1,497,498	1,197,498	1,497,498	1,197,498	1,497,498	1,197,498	1,497,498	1,197,498	1,497,498	1,197,498	1,497,498	1,197,498	1,497,498	1,197,498	1,497,498	1,197,498
AMMAN	MWAOQAR	1,107,867	886,298	886,298	709,038	1,031,434	825,147	1,031,434	825,147	1,031,434	825,147	1,031,434	825,147	1,031,434	825,147	1,031,434	825,147	1,031,434	825,147	1,031,434	825,147
AMMAN	NAUR	1,077,826	862,273	862,273	690,607	1,031,434	825,147	1,031,434	825,147	1,031,434	825,147	1,031,434	825,147	1,031,434	825,147	1,031,434	825,147	1,031,434	825,147	1,031,434	825,147
AMMAN	SAHAR	1,077,826	862,273	862,273	690,607	1,031,434	825,147	1,031,434	825,147	1,031,434	825,147	1,031,434	825,147	1,031,434	825,147	1,031,434	825,147	1,031,434	825,147	1,031,434	825,147
AMMAN	WADI AS SIR	2,901,551	2,321,236	2,321,236	1,856,993	2,695,382	2,156,305	2,695,382	2,156,305	2,695,382	2,156,305	2,695,382	2,156,305	2,695,382	2,156,305	2,695,382	2,156,305	2,695,382	2,156,305	2,695,382	2,156,305
AMMAN	UMM AL BASATEYN	1,789,910	1,431,928	1,431,928	1,145,544	1,608,068	1,286,451	1,608,068	1,286,451	1,608,068	1,286,451	1,608,068	1,286,451	1,608,068	1,286,451	1,608,068	1,286,451	1,608,068	1,286,451	1,608,068	1,286,451
TTL AMMAN		93,045,298	75,111,131	75,111,131	59,111,131	93,045,298	75,111,131	93,045,298	75,111,131	93,045,298	75,111,131	93,045,298	75,111,131	93,045,298	75,111,131	93,045,298	75,111,131	93,045,298	75,111,131	93,045,298	75,111,131
AL HASA	AL HASA	3,933,126	3,146,502	3,146,502	2,517,189	3,254,434	2,603,369	3,254,434	2,603,369	3,254,434	2,603,369	3,254,434	2,603,369	3,254,434	2,603,369	3,254,434	2,603,369	3,254,434	2,603,369	3,254,434	2,603,369
AL HASA	AT TAFILAH	2,221,787	1,777,430	1,777,430	1,421,941	2,042,261	1,633,811	2,042,261	1,633,811	2,042,261	1,633,811	2,042,261	1,633,811	2,042,261	1,633,811	2,042,261	1,633,811	2,042,261	1,633,811	2,042,261	1,633,811
AL HASA	BUSATRAH	888,798	710,441	710,441	568,354	815,344	652,273	815,344	652,273	815,344	652,273	815,344	652,273	815,344	652,273	815,344	652,273	815,344	652,273	815,344	652,273
TTL AT TAFILAH		3,697,278	2,957,760	2,957,760	2,366,208	3,434,732	2,747,786	3,434,732	2,747,786	3,434,732	2,747,786	3,434,732	2,747,786	3,434,732	2,747,786	3,434,732	2,747,786	3,434,732	2,747,786	3,434,732	2,747,786
AZ ZARQA	AZ ZARQA	36,132,886	28,702,398	28,702,398	23,366,724	33,867,974	27,091,974	33,867,974	27,091,974	33,867,974	27,091,974	33,867,974	27,091,974	33,867,974	27,091,974	33,867,974	27,091,974	33,867,974	27,091,974	33,867,974	27,091,974
AZ ZARQA	BEEREYN	472,447	377,530	377,530	302,020	434,763	347,811	434,763	347,811	434,763	347,811	434,763	347,811	434,763	347,811	434,763	347,811	434,763	347,811	434,763	347,811
TTL AZ ZARQA		36,605,333	29,079,928	29,079,928	23,																

Demand Projections

IRRID	IRRID	12,550,371	35,826,382	17,913,191	17,913,191	38,090,547	17,140,746	20,940,801	40,593,803	16,238,321	34,357,482	48,193,084	16,868,283	31,326,811	56,928,910	17,078,673	39,830,237
TTL IRRID		44,238,825	70,282,314	35,141,157	35,141,157	74,774,834	33,623,815	41,098,219	79,638,713	31,855,485	47,783,228	94,546,602	33,091,311	61,455,291	111,688,144	33,594,043	78,178,101
TTL JARASH		7,538,684	11,659,814	5,829,507	5,829,507	12,395,844	5,578,130	6,817,714	13,211,131	5,284,453	7,926,679	15,684,176	5,489,462	10,184,714	18,576,498	5,557,929	12,588,501
MAAN	AIL	319,044	506,869	253,434	253,434	538,902	242,506	286,386	574,346	229,738	344,698	681,860	238,651	443,209	803,425	241,628	563,798
MAAN	AL HUSATNIYYA	383,992	610,053	305,027	305,027	648,607	291,873	356,734	691,267	276,507	414,760	820,668	287,234	533,434	949,388	290,816	678,572
MAAN	ASH SHOBAR	610,837	970,445	485,222	485,222	1,031,775	464,299	567,476	1,099,636	439,854	659,782	1,303,482	456,919	848,563	1,542,038	462,617	1,079,441
MAAN	MAAN	2,366,170	3,729,165	1,879,583	1,879,583	3,996,738	1,798,532	2,198,206	4,259,607	1,703,843	2,555,764	5,056,980	1,769,943	3,287,037	5,973,386	1,792,019	4,181,377
MAAN	WADI MUSA	1,005,278	1,507,088	798,549	798,549	1,698,032	764,114	933,918	1,808,713	723,885	1,085,828	2,148,481	751,948	1,386,512	2,537,824	761,347	1,778,477
TTL MAAN		4,685,331	7,443,630	3,721,815	3,721,815	7,214,854	3,561,334	4,352,720	8,434,579	3,275,928	5,080,742	10,813,471	3,504,715	6,508,756	11,822,691	3,548,427	8,279,664
MADABA	MADABA	4,883,128	7,726,114	3,863,057	3,863,057	8,214,591	3,696,476	4,517,915	8,754,660	3,501,864	5,232,796	10,393,480	3,637,718	6,753,782	12,276,965	3,683,090	8,993,876
MADABA	THEEBAN	1,393,060	2,214,602	1,107,301	1,107,301	2,354,561	1,059,553	1,295,009	2,599,473	1,003,769	1,505,654	2,979,172	1,042,710	1,936,462	3,519,052	1,053,716	2,463,336
TTL MADABA		6,257,088	9,940,717	4,970,358	4,970,358	10,569,153	4,756,029	5,812,924	11,264,684	4,505,634	6,738,450	13,372,653	4,680,428	8,692,224	15,796,018	4,736,805	11,457,212
TTL JOYTDAN		243,707,755	387,181,643	193,590,822	193,590,822	411,650,849	185,242,882	226,407,967	438,725,563	175,490,225	263,235,338	520,852,356	182,298,325	338,554,032	615,248,157	184,572,847	438,668,118