

IV. - THE SOUTHERN MIDDLE EAST

1. YEMEN

With 18 million inhabitants (2000), Yemen may not yet be the Arabian Peninsula's most populous country, since Saudi Arabia officially has 2 million more, admittedly nationals and expatriates combined. But Yemen's population is almost entirely indigenous, and so highly homogeneous compared to its powerful neighbour. Yemen's greater population growth potential than Saudi Arabia will intensify this distinction over time.

Reconstituting population trends is nigh-impossible, especially as Yemen was in two parts before 1990. Yemen has maintained the world's highest fertility, but there have still been changes over time, although fertility of 6.7 children per woman, at the last 1997 DHS survey may be somewhat unexpected. Yemen, along with Palestine, is one of the very few instances of such entrenched fertility behaviour in the Arab world.

But there is no an ostensible constancy of fertility, because the worldwide rise in educational levels has not passed Yemen's female population by. Also, educated women's fertility is changing, to whatever small extent. The very high period fertility rate of 7.84 children attained by primary school-educated women in 1977¹ had fallen by more than two children to 5.4 in 1995 (table 1). Fertility fell sharply among women educated to above primary level from approximately 6 down to 3.2 in the middle of the Nineties. Even illiterate women are no more maintaining very high fertility - at 7.3 theirs has fallen over time (8.66 in 1977).

Table 1. - Yemen. Recent fertility rate trend by female educational level, 1977-1997

	1977	1990	1995
Uneducated	8.66	8.10	7.31
Primary	7.84	5.70	5.44
Primary and above	6.00	3.50	3.24
Yemen	8.20	7.67	6.66

Source: For former North Yemen in 1977, Department of Statistics, Yemen Arab Republic Fertility Survey 1979, Sanaa, 1983. For former South Yemen, United Nations, 1990, Central Statistical Organization, Demographic and Maternal and Child Health Survey, 1991/1992, Sanaa, 1994. For 1995, Central Statistical Organization, Yemen Demographic and Maternal and Child Health Survey 1997, Sana'a, 1998.

¹ Author's calculation based on marital fertility rates _ presumed identical in illiterate and educated women _ and education level-specific proportions of married women. The rates were also prorated to factor in Southern Yemen's lower fertility in 1977. For women with above primary education the highly rounded rate of 6 is inferred from trend rates among educated women in the region.

Female educational levels are rising sharply. In 1995, illiteracy was universal among women in the 45-49 year age group, but affected just over one woman in two aged 15-19. Education is set to improve further in the next thirty years, especially in primary and post-primary education.

This structural population change will shadow a significant inherent fertility decline among educated women, less so among illiterate women. While the fertility of better-educated women may conceivably fall to replacement level by 2020-25, trend rates suggest that illiterate women's fertility could continue to top 4 children per woman.

Table 2. - Yemen. Female educational distribution (%)

Age	1995	2000	2005	2010	2015	2020	2025
Illiterate							
15-19	53,3	48,7	44,2	40,1	36,4	33,1	30,1
20-24	64,5	53,3	48,7	44,2	40,1	36,4	33,1
25-29	78,2	64,5	53,3	48,7	44,2	40,1	36,4
30-34	85,3	78,2	64,5	53,3	48,7	44,2	40,1
35-39	91,2	85,3	78,2	64,5	53,3	48,7	44,2
40-44	95,1	91,2	85,3	78,2	64,5	53,3	48,7
45-49	97,2	95,1	91,2	85,3	78,2	64,5	53,3
Primary and below							
15-19	24,8	25,4	25,8	25,9	25,5	24,8	23,7
20-24	17,7	24,8	25,4	25,8	25,9	25,5	24,8
25-29	8,0	17,7	24,8	25,4	25,8	25,9	25,5
30-34	6,3	8,0	17,7	24,8	25,4	25,8	25,9
35-39	3,3	6,3	8,0	17,7	24,8	25,4	25,8
40-44	2,2	3,3	6,3	8,0	17,7	24,8	25,4
45-49	1,2	2,2	3,3	6,3	8,0	17,7	24,8
Above primary							
15-19	21,9	25,9	30,0	34,0	38,1	42,1	46,2
20-24	17,8	21,9	25,9	30,0	34,0	38,1	42,1
25-29	13,8	17,8	21,9	25,9	30,0	34,0	38,1
30-34	8,4	13,8	17,8	21,9	25,9	30,0	34,0
35-39	5,5	8,4	13,8	17,8	21,9	25,9	30,0
40-44	2,7	5,5	8,4	13,8	17,8	21,9	25,9
45-49	1,6	2,7	5,5	8,4	13,8	17,8	21,9

Source: Long-term trend extrapolated from Central Statistical Organization, Demographic and Health..1997 – op. cit.

However, marginalization of illiterate groups (they will represent one-third of the age-group 15-49 years) as a result of changes in the educational makeup of the population will increasingly reduce their influence on overall fertility. By 2025, the

period fertility rate will be 3.4 children per woman in the rapid fertility decline scenario (??? in the slow fertility decline scenario).

Table 3. - Yemen. Projected total fertility rate according to two decline scenarios:

	1995	2000	2005	2010	2015	2020	2025
Scenario 1*							
Illiterate	7,31	6,41	5,62	4,93	4,62	4,33	4,13
Primary	5,44	5,20	4,97	4,75	4,54	4,34	4,11
Primary and above	3,24	3,00	2,78	2,58	2,39	2,22	2,11
ALL	6,66	5,71	4,94	4,33	3,98	3,66	3,38
Scenario 2*							
Illiterate	7,31	6,85	6,41	6,01	5,63	5,27	4,94
Primary	5,44	5,32	5,2	5,08	4,97	4,86	4,75
Primary and above	3,24	3,12	3,00	2,89	2,79	2,68	2,58
ALL	6,66	6,05	5,52	5,06	4,68	4,34	4,04

* Scenario 1 = Rapid fertility decline, according to the trend 1990-1995, Scenario 2 = Slow fertility decline, twice slower than Scenario 1.
Source: Extrapolated individual fertility decline trends.

Conservative as this forecast is - assuming the fairly unlikely case of continuing very high fertility among illiterate women - it is markedly lower than that of the United Nations - nearly 16 million less in 2025: 32.6 against 48.2 million. Even the second scenario produces lower results. The United Nations has underestimated the scope for modernizing fertility behaviour in this country too long cut off from the international mainstream. Yet, it is extremely surprising that their 2000 forecast yields results that are much higher than the 1998 one, whereas the last DHS 1997 survey has clearly shown a declining fertility at a higher pace than what was previously expected.

The fact remains that Yemen's population will double in under 25 years, before 2020 (table 4). The rate of population growth will drop from 33 per 1000, admittedly, but continue at a very high rate of 25 per 1000 right up to the forecast date due to the very sharp decline in the death rate.

The population will not age significantly - the proportion of older people will stay within very low limits: 2.4% at present and 2.9% in 2025 - unlike other countries in the peninsula, whose populations will age rapidly.

Table 4. - Population size 1995-2025 (thousands), according to the 2 forecast scenarios and UN 1998

Table 4. - Yemen. Population size 1995-2025 (thousands), according to the 2 forecast scenarios and UN 2000

	1995	2000	2005	2010	2015	2020	2025
Scenario 1*	15027	17654	20339	23123	26095	29282	32603
Scenario 2*	15027	17745	20702	23942	27508	31405	35606
UN 1998	15022	18112	21545	25366	29596	34190	38985
UN 2000		18349	22484	27359	33118	40036	48206

* Scenario 1 = Rapid fertility decline. Scenario 2 = Slow fertility decline

Source: Calculation by the component method.

The country's labour force potential will buck the general trend. Unlike the general turn-of-the century downturn in the 15-19 age group curve caused by the 15-19 years delayed labour market effect of fertility transition, Yemen's curve is rising steadily: in 1995, 335 000 new jobs were needed, but 640 000 in 2025, twice more. Adjustment for labour market exits does not improve the situation much; net labour force entrants totalled 290 000 in 1995, but will be 480 000 in 2025 - 1.6 times more.

Accompanying Table 1. - Yemen. Structure by broad age groups (%) (Variant 1 only)

AGE	1995	2000	2005	2010	2015	2020	2025
0 14	46,1	45,3	43,1	40,3	37,6	35,7	34,2
15 64	51,5	52,2	54,3	57,1	59,7	61,4	62,6
65+	2,4	2,5	2,6	2,7	2,8	2,9	3,2

Accompanying Table 2. - Yemen. Crude birthrate, crude death rate, natural increase, migration and rate of growth (per 1000) (Variant 1 only)

	1995	2000	2005	2010	2015	2020
Birth	42,1	37,0	33,4	31,3	29,6	27,5
Death	10,0	8,8	7,8	7,1	6,5	6,0
Nat. Incr.	32,2	28,3	25,6	24,1	23,0	21,5
Migration	0,0	0,0	0,0	0,0	0,0	0,0
Growth	32,2	28,3	25,6	24,1	23,0	21,5

Accompanying Table 3. - Population (thousands) by five-year age group and sex

AGE	2000			2005			2010		
	Males	Females	Both	Males	Females	Both	Males	Females	Both
0 4	1565	1489	3053	1618	1536	3153	1690	1601	3292
5 9	1357	1310	2667	1522	1442	2964	1581	1494	3075
10 14	1151	1128	2279	1349	1301	2650	1514	1434	2948
15 19	944	914	1858	1143	1120	2263	1341	1293	2634
20 24	862	793	1655	935	905	1839	1133	1110	2244
25 29	779	668	1447	851	783	1634	925	895	1820
30 34	670	554	1224	769	659	1427	841	773	1615
35 39	534	454	988	659	546	1204	758	649	1407
40 44	257	354	611	523	446	969	647	536	1183
45 49	182	282	464	250	346	596	510	436	946
50 54	156	234	391	174	273	448	241	335	576
55 59	133	188	321	147	224	371	165	261	426
60 64	113	148	262	121	175	296	135	208	344
65 69	87	110	197	98	132	231	106	156	262
70 74	58	73	131	69	90	160	80	109	188
75+	46	61	107	57	75	132	70	94	164
TOTAL	8893	8761	17654	10286	10053	20339	11739	11385	23123
AGE	2015			2020			2025		
	Males	Females	Both	Males	Females	Both	Males	Females	Both
0 4	1810	1711	3521	1948	1837	3784	2046	1926	3972
5 9	1659	1565	3224	1784	1680	3464	1928	1811	3740
10 14	1574	1487	3061	1654	1559	3212	1780	1674	3454
15 19	1507	1426	2933	1568	1480	3048	1649	1552	3201
20 24	1332	1283	2614	1499	1416	2915	1561	1472	3033
25 29	1124	1100	2223	1323	1272	2595	1491	1406	2898
30 34	916	885	1801	1115	1089	2204	1314	1262	2576
35 39	831	763	1595	907	875	1782	1106	1078	2184
40 44	746	639	1385	820	752	1572	897	863	1760
45 49	632	525	1157	731	626	1357	807	737	1544
50 54	493	423	915	614	509	1122	712	606	1319
55 59	229	320	549	470	403	873	588	485	1073
60 64	153	243	395	213	297	510	440	374	814
65 69	120	186	305	136	216	353	192	265	457
70 74	87	129	216	100	153	253	115	179	294
75+	85	115	200	100	139	239	117	168	285
TOTAL	13298	12797	26095	14980	14302	29282	16744	15859	32603

2. SAUDI ARABIA

Saudi Arabia's current population size is a state secret. The last census (1992) results remain confidential. Only the broad aggregates have been released: the total censused population was 17 million, including 12.4 million Saudi nationals and 4.6 million foreigners. While the latter figure seems reasonably in line with past estimates of the foreign population size, serious doubts have been raised about the national residents total which may have been artificially inflated in keeping with Saudi Arabia's claim to be more than the "Vatican of Islam". It dislikes being only second largest in the peninsula behind a reunified Yemen : 17.7 million Yemeni nationals in 2000 (against some 14.6 Saudi nationals) with one of the world's strongest population growths².

The data collected by Birks and Sinclair in the Seventies pointed to a comparatively small Saudi national population: 3.3 in 1963 and 4.6 in 1975 (table 1). ESCWA's 1988 figure already had little credibility since it implied a rate of natural increase (naturalisations are negligible) of 51.7 per 1000, where the normal biological maximum is about 40 per 1000. This trend deepened in 1992, with a rate of increase of 88 per 1000 for 1988-92. The lack of published evidence makes it hard to attach full credence to these figures. Were the 1992 census figure to be accurate - as some external observers believe it is - then the 1988 data - and even more so, the 1975 and 1963 figures - would have drastically underestimated the Saudi population.

The foreign population has ostensibly increased from 600 000 in 1963, to 1 562 000 in 1975, 5 939 000 in 1988, to decrease slightly to 4 600 000 in 1992. ESCWA's estimate for 1996 was 5.5 million and the Chamber of Commerce of Saudi Arabia published a figure of 5.9 million for 1998.

Table 1. - Saudi Arabia. Estimated recent Saudi national population

Year	Size (thousands)	Annual growth (per 1000)
1963	3 310	
1975	4 592	27.7
1988	8 847	51.7
1992	12 480	88.1

Sources: 1963 and 1975 : J.S. Birks and C.A. Sinclair, *The International Migration Project. Country case study: The kingdom of Saudi Arabia*, Durham, 1979.
 1988 : UNESCWA, *Demographic and related socio-economic data sheets for countries of the economic and social commission for western Asia as assessed in 1988*, Amman, 1989.
 1992 : Jean-Michel Foulquier, *Arabie Saoudite. La dictature protégée*, Albin Michel, Paris, 1995.

The paucity of reliable figures makes forecasts even more uncertain here than elsewhere. Presuming a correct population size in 1992, the same national/foreign residents ratio of 73% to 27% in 1995, the forecast was made using the United Nations' baseline total population in 2000 : 20 346 thousand (medium variant), mortality trends and foreign immigration assumptions. The only significant difference relates to current and future fertility: the United Nations overstates both based on survey reports³.

² See Philippe Fargues, "Démographie et politique dans le monde arabe", *Population*, 2, 1992.

³ Ministry of Health, *Saudi Arabia Child Health Survey, Riyadh*, 1991.

Furthermore, their 2000 set of fertility estimates are much higher than those prepared for the 1998 exercise. Hence the TFR for 1995-2000 is now estimated at 6.15 instead of 5.80 in 1998, and at 3.61 at the horizon of the forecasts instead of 2.95. By 1986, in fact, Saudi nationals fertility was down to 6.46, while that of the foreign community - nearly a third of the population - was estimated by the UNESCWA at 2.72; ten years ago, therefore, Saudi Arabia fertility was already down to around 5.45. Also, the last Saudi survey evidences a fairly high rate of national fertility decline⁴. A trend rate of decline of 1.9% a year was therefore used in the rapid fertility decline scenario, and half that in the slow fertility decline scenario (table 2).

Table 2. - Saudi Arabia. Projected total fertility rate according to two decline scenarios, fertility and net immigration according to United Nations (2000)

	1995	2000	2005	2010	2015	2020	2025
Scenario 1*	4.60	4.17	3.79	3.44	3.12	2.84	2.58
Scenario 2*	4.60	4.37	4.15	3.94	3.74	3.56	3.38

	1995- 2000	2000- 2005	2005- 2010	2010- 2015	2015- 2020	2020- 2025
Net immigration (thousands)	400	150	150	150	150	150

Net immigration (thousands)

* Scenario 1 = Rapid fertility decline. Scenario 2 = Slow fertility decline

Source: Extrapolation of recent fertility decline trends for nationals (same rate for foreign residents)

Net immigration: United Nations, *World Population Prospects as Assessed in 1996*, op. cit.

The UN estimates that Saudi Arabia's national and foreign population will more than double in 30 years from 17.9 to 40.5 million (table 3). However the unabating crisis in the oil economies is likely to affect both fertility of national residents and foreign immigration. Taking fertility alone, I project a sharper decline than the UN, limiting population growth to 33.9 million or an extra 6.6 million by 2025, (3.7 million fewer in the slow fertility decline scenario). Turning off the immigration tap - as seems likely - would result in a population of 32.1 million by 2025.

Table 3. - Saudi Arabia. Population size 1995-2025 (thousands) according to the two forecast scenarios with immigration and according to UN 1998 and 2000:

	1995	2000	2005	2010	2015	2020	2025
Scenario 1*	17914	20346	22831	25558	28436	31281	33907
Scenario 2*	17914	20404	23083	26174	29614	33227	36832
No migrat.	17914	19915	22171	24638	27235	29785	32106
UN 1998	18253	21607	25064	28778	32623	36424	39965
UN 2000		20346	23765	27588	31748	36095	40473

Scenario 1 = Rapid fertility decline. Scenario 2 = Slow fertility decline

Saudi Arabia is unlikely to catch up the region's demographic giants - Iran, Iraq, Egypt and even Yemen - in population size, notwithstanding all the government's

⁴ Youssef Courbage, "Baisse de la fécondité dans la péninsule arabique", *Population*, 2, 1995

efforts to help it do so in the form of a pronatalist policy, virtually full welfare state, and opening the door to immigration. Ironically, it is now likely to pay a high price for that with the mass influx of young nationals onto a labour market which cannot absorb them as once it did - a 38% increase in 15-19 year-olds between 2000 and 2025 - and an ageing resident immigrant population - the share of people aged 65 and over (all origins) will rise from 2.7 to 7.3%.

Accompanying Table 1. - Saudi Arabia. Structure by broad age groups (%) (Variant 1 only)

Age	1995	2000	2005	2010	2015	2020	2025
0-14	41.9	38.2	34.8	31.7	31.7	30.8	29.1
15-64	55.4	58.8	61.7	64.3	63.4	63.0	63.5
65+	2.7	3.0	3.5	4.0	4.9	6.1	7.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Accompanying Table 2. - Saudi Arabia. Crude birth rate, crude death rate, natural increase, migration and rate of growth (per 1000) (Variant 1 only)

	1995- 2000	2000- 2005	2005- 2010	2010- 2015	2015- 2020	2020- 2025
Birth	26.0	26.4	26.2	25.3	23.3	20.7
Death	4.8	4.8	4.9	5.1	5.2	5.5
Nat. Incr.	21.2	21.6	21.3	20.2	18.1	15.2
Migration	4.2	1.4	1.2	1.1	1.0	0.9
Growth	25.4	23.0	22.5	21.3	19.1	16.1

Accompanying Table 3. - Saudi Arabia. Population (thousands) by five-year age group and sex

AGE	2000			2005			2010		
	Males	Females	Both	Males	Females	Both	Males	Females	Both
0 4	1207	1158	2365	1383	1327	2710	1545	1481	3027
5 9	1469	1398	2867	1204	1156	2360	1380	1325	2705
10 14	1307	1231	2538	1476	1406	2882	1211	1166	2377
15 19	1141	1078	2218	1316	1242	2557	1484	1417	2901
20 24	980	956	1936	1150	1085	2234	1325	1248	2573
25 29	717	701	1418	990	960	1950	1160	1089	2249
30 34	625	550	1175	724	703	1427	996	962	1958
35 39	754	445	1199	627	550	1178	726	703	1429
40 44	906	368	1273	750	444	1194	625	549	1174
45 49	775	314	1088	894	365	1259	741	440	1182
50 54	496	261	757	756	310	1066	874	360	1234
55 59	312	207	519	477	255	732	728	303	1031
60 64	211	162	373	293	199	493	450	245	695
65 69	146	124	269	191	152	343	267	185	453
70 74	93	88	181	124	108	232	163	131	295
75+	79	90	169	102	113	215	135	141	277
TOTAL	11215	9131	20346	12456	10375	22831	13812	11746	25558
AGE	2015			2020			2025		
	Males	Females	Both	Males	Females	Both	Males	Females	Both
0 4	1668	1599	3267	1707	1635	3343	1663	1593	3256
5 9	1543	1480	3023	1667	1598	3265	1707	1637	3344
10 14	1388	1334	2722	1550	1490	3040	1675	1608	3283
15 19	1221	1176	2397	1397	1345	2742	1560	1501	3061
20 24	1493	1424	2917	1231	1184	2415	1408	1353	2761
25 29	1335	1253	2587	1503	1428	2931	1243	1189	2432
30 34	1166	1090	2256	1341	1254	2595	1510	1429	2939
35 39	997	961	1958	1166	1089	2255	1342	1252	2594
40 44	724	700	1424	993	957	1950	1163	1084	2247
45 49	619	545	1164	717	695	1412	985	949	1934
50 54	726	434	1161	608	537	1145	705	685	1390
55 59	844	352	1196	703	424	1127	590	524	1114
60 64	689	290	980	801	337	1138	670	406	1076
65 69	412	227	639	635	267	902	741	309	1051
70 74	230	158	389	358	191	549	556	223	778
75+	181	176	357	252	218	470	377	270	648
TOTAL	15236	13199	28436	16631	14650	31281	17895	16012	33907

3. GULF PRINCIPALITIES: BAHRAIN, KUWAIT, OMAN, QATAR, UNITED ARAB EMIRATES

These 5 states are grouped together only by reason of their small national and expatriate population sizes (table 1). These have dropped sharply since the Gulf War due to an economic recession which has swept a region thought immune to such vicissitudes. Discounting net immigration, indigenous fertility has itself declined⁵. Fertility levels in the immigrant population – the majority of the population : 56% in these five Principalities - have been low. The decline in indigenous fertility is evidenced by recent surveys measuring the trend from the turn of the Eighties to 1996. Indigenous fertility has decreased to around 4 children or less : 3.75 in Bahrain, 3.43 in Kuwait, 3.56 in Qatar, 4.26 in the United Arab Emirates. It remains high in Oman, although decreasing from very high levels : 8.70 in 1986-90, 6.75 in 1996.

Table 1 . - Gulf Principalities. Recent indicators (1996)

	Population size (thousands)				Fertility		
	Nationals	Foreigners	Total	% Foreigners	Nationals	Foreigners	Total
Bahrain	355	211	557	37.3	3.75	1.83	2.89
Kuwait	693	1334	1691	65.8	3.43	2.30	2.66
Oman	1623	617	2207	27.5	6.75	2.34	5.66
Qatar	133	435	548	76.5	3.56	1.48	2.88
UAE	643	1750	2210	73.1	4.26	2.38	2.97
Total	3448	4347	7794	55.8	5.19	2.23	3.65

Source: National and foreign population sizes and fertility from: UNESCWA, *Demographic and related socio-economic data sheets for countries of the economic and social commission for Western Asia as assessed in 1996*, Beirut, 1997.

The population forecast was constructed according to two fertility decline scenarios and a net immigration assumption (table 2). I used the most recent 2000 UN immigration flow estimates, although political and economic uncertainties in the region would have made it reasonable to project a halt to net immigration.

⁵ Youssef Courbage, "Baisse de la fécondité dans la péninsule arabique", *op. cit.*

Table 2. - Gulf Principalities. Projected total fertility according to two decline scenarios and net immigration according to United Nations

	1995	2000	2005	2010	2015	2020	2025
Scenario 1*	3.75	3.26	2.83	2.47	2.15	2.10	2.10
Scenario 2*	3.75	3.49	3.25	3.03	2.82	2.63	2.45

1995-2000 2000-2005 2005-2010 2010-2015 2015-2020 2020-2025

Net immigration (thousands)	250	200	155	122	104	90	
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* Scenario 1 = Rapid fertility decline. Scenario 2 = Slow fertility decline

Source: Extrapolation of recent fertility decline trends for nationals (same rate for foreign residents)

Net immigration: United Nations, *World Population Prospects as Assessed in 2000*, op. cit.

These fertility and migration trends would increase the populations of the Gulf Principalities - national and foreign residents combined - to just over 12.3 million in 2025. The most recent UN forecast in 2000 by overestimating fertility levels, present and future, reaches a higher figure for these five States: 13.8 million. The US Bureau of the Census, while projecting fertility close to replacement level in 2025, (except for Oman : 3.72), is more optimistic on immigration flows (especially for Kuwait and Qatar) and reaches therefore an even higher figure of 14.8 million in 2025.

Table 3. - Gulf Principalities. Population size 1995-2025 according to the 2 forecast scenarios, immigration assumptions, UN 1998 and UN 2000

Year	1995	2000	2005	2010	2015	2020	2025
Scenario 1*	7336	8263	9150	10013	10825	11575	12264
Scenario 2*	7336	8291	9271	10301	11365	12389	13303
Without migration	7336	7997	8640	9280	9891	10450	10938
UN 1998	7161	8171	9167	10193	11245	12275	13247
UN 2000		8263	9358	10490	11642	12740	13775

* Scenario 1 = Rapid fertility decline. Scenario 2 = Slow fertility decline

Source: Calculation by the component method. The age-sex structure of the population in 1995 was reconstituted from United Nations, *The Sex and Age Distribution of the World Populations. The 1998 Revision*, New York, 1999.

The very existence of these oil-rich, human resource-poor states, with their foreign-dominated populations and economic activity, depends on rapid growth in a more evenly-constituted population. But indigenous fertility decline and continued immigration will worsen the imbalance. The uncertainty of both is likely to increase as respects the regional giants of Yemen, Saudi Arabia, Iraq and Iran. There is also the less-visible component of ageing. The large foreign component of the labour force is approaching retirement. Some will return to their homelands. Others - perhaps most - neither can nor want to do so. Many would like to take advantage of these welfare States, namely their medical facilities. The proportion of older people - only 2% in 1995 - may rise to 10.4% by 2025 - a fivefold increase in share, but a nine-fold rise in numbers.

Accompanying Table 1. - Gulf Principalities. Structure by broad age groups (%) (Variant 1 only)

Age	1995	2000	2005	2010	2015	2020	2025
0-14	38.0	34.4	29.5	25.9	25.0	24.2	23.4
15-64	60.0	63.3	67.2	69.7	68.9	67.5	66.2
65+	2.0	2.5	3.3	4.4	6.1	8.3	10.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Accompanying Table 2. - Gulf Principalities. Crude birth rate, crude death rate, natural increase, migration and rate of growth (per 1000) (Variant 1 only)

	1995- 2000	2000- 2005	2005- 2010	2010- 2015	2015- 2020	2020- 2025
Birth	21.6	20.2	19.6	18.6	17.5	16.7
Death	4.3	4.4	4.8	5.3	6.0	6.9
Nat. Incr.	17.3	15.8	14.8	13.2	11.5	9.8
Migration	6.4	4.6	3.2	2.3	1.9	1.7
Growth	23.8	20.4	18.0	15.6	13.4	11.6

Accompanying Table 3. - Gulf Principalities. Population (thousands) by five-year age group and sex

AGE	2000			2005			2010		
	Males	Females	Both	Males	Females	Both	Males	Females	Both
0 4	412	396	808	430	413	843	459	440	899
5 9	516	499	1015	418	402	821	434	417	852
10 14	510	494	1004	528	512	1040	428	413	841
15 19	435	420	855	524	510	1034	539	524	1063
20 24	355	334	689	451	432	884	537	519	1055
25 29	290	257	547	372	343	715	464	439	903
30 34	276	213	489	303	263	566	382	347	729
35 39	370	231	601	283	216	499	308	265	573
40 44	441	230	670	371	232	603	284	217	501
45 49	379	185	565	437	229	666	368	231	599
50 54	271	130	401	371	183	554	427	226	653
55 59	168	84	252	261	127	389	357	179	537
60 64	105	56	161	158	81	239	246	123	369
65 69	61	38	99	95	52	148	144	75	219
70 74	31	25	56	51	33	85	81	45	127
75+	24	26	51	33	33	65	51	42	93
TOTAL	4645	3618	8263	5089	4062	9150	5511	4502	10013
AGE	2015			2020			2025		
	Males	Females	Both	Males	Females	Both	Males	Females	Both
0 4	474	455	929	484	464	948	492	471	963
5 9	462	443	905	477	458	935	487	467	954
10 14	442	426	867	468	450	918	483	465	948
15 19	437	422	859	449	434	883	476	459	934
20 24	549	531	1080	445	428	873	458	440	898
25 29	546	524	1070	557	535	1092	454	433	887
30 34	471	442	913	552	526	1078	563	537	1100
35 39	385	348	733	474	442	915	554	526	1080
40 44	309	265	573	385	347	732	473	441	914
45 49	282	216	498	306	263	569	382	345	727
50 54	361	228	589	277	213	490	301	259	561
55 59	413	221	634	349	223	572	269	208	477
60 64	338	172	510	392	212	604	333	213	546
65 69	226	113	339	311	159	470	363	194	557
70 74	124	64	189	196	96	292	273	132	405
75+	80	57	137	125	79	204	199	115	314
TOTAL	5899	4925	10825	6249	5326	11575	6560	5704	12264

4. IRAN

Overestimates of its population size and fertility have often produced overstated forecasts for Iran. A 1996 census reported a population of just over 60 million. As a result, the population of Iran was overestimated by more than 3 million at the UN forecasts baseline date (1995). The US Bureau of the Census estimate for this year is also exaggerated : 61.5 million. The World Bank estimate of 59 million is more in accordance with census figures.

Fertility has been estimated from efficiently-kept, near-exhaustive registration records (table 1) and more recently thanks to detailed analysis of the 1996 census, through the own-children method. It shows that from its peak of 6.5 in 1979, it went down to 6.2 in 1986 and further to 5.3 in 1989. From 1990, the transition accelerated, fertility dropping from 5.32 to 2.93 in 1994-1996 (a 12% yearly decrease). Urban areas were below replacement level at this date (2.03) and six provinces (Tehran, Isfahan, East Azarbayjan, Gilan, Semnan, Mazandaran)⁶. Apparently this trend was unabated, as shown by the Population Growth Estimation Survey in 1998, with a TFR of 2.06 for Iran as a whole (1.68 in Tehran).

All sources confirm that fertility has collapsed since the mid-Eighties - broadly, since the end of the Iran-Iraq war and the adoption of an ambitious family planning programme contemporaneous with but not explanatory of it. The fact is that Iran had all the conditions in place for fertility decline: high literacy rate, namely among females (74% according to the 1996 census) and urbanization (61% town-dwellers in 1996) are the breeding ground for small families - a preference manifested only once economic hardships kicked in. Falling oil prices and family purchasing power gave the impetus. Lastly, the Islamic State swapped its previous militantly anti-family planning stance for a more pragmatic ultra-proactive antinatalism from 1988. Hence contraceptive prevalence rate has reached 73% (77% in urban areas).

Table 1. Iran. - Recent total fertility rate trend

Year	Rate	Year	Rate	Year	Rate	Year	Rate
1983	6.8	1986	6.2	1989	5.1	1992	3.8
1984	6.8	1987	6.0	1990	4.7	1993	3.5
1985	6.7	1988	5.4	1991	4.2		

Source: Marie Ladier. Fouladi, « La transition de la fécondité.. - » op. cit.

In fact, notwithstanding its physical distance from the Mediterranean region, Iran is affected by the same generalised fertility decline in much the same way as Turkey and the Arab countries notwithstanding the Arabian Peninsula. In fact, if one decides to get rid of the common international stereotypes portraying Iran as a “traditional” Moslem society, hence resistant to population changes, there are no reasons why fertility should not plunge below replacement level. The United Nations Population Division did not ratify the veracity of Iran’s very rapid fertility transition. Hence, the 2000 estimate of the TFR for 1995-2000 : 3.20 is not only much higher than those of the census and

⁶ Mohammad Jalal Abbassi-Shavazi, « Below replacement-level fertility in Iran : Progress and Prospects », *IUSSP Seminar on International Perspectives on Low Fertility : Trends, Theories and Policies*, Tokyo, March 21-23, 2001.

survey made in Iran (about 2.50), but also higher than the previous UN estimate of 1998: 2.80. Contrariwise, the US Bureau of the census substantiates de fact that Iran's fertility might fell below replacement level as soon as 2001 : 2.01 and to reach 1.86 in 2025. Thier estimates are also closer to those of Iran (a TFR of 2.72 in 1995-1999 instead of the 3.20 of the UN).

The fertility forecasts were dictated by the observed rapid decline of fertility during the 1990's and the likelihood that Iran might reach in 2025 a TFR, substantially below replacement. The present TFR depicted in Tehran was taken as the ultimate TFR for the country in 2025 (table 2) in scenario 1. Scenario 2 limits fertility decline to 2.06, which is the TFR found by the Population Growth Estimation Survey in 1998.

Table 2. - Iran. Projected total fertility rate according to two scenarios

	1995	2000	2005	2010	2015	2020	2025
Scenario 1*	2.93	2.06	1.87	1.72	1.67	1.65	1.65
Scenario 2*	2.93	2.06	2.06	2.06	2.06	2.06	2.06

* Scenario 1 = Rapid fertility decline. Scenario 2 = Slow fertility decline

The country's strategic importance and population size, and the sometimes perplexing nature of its transition, would have warranted a full forecast bringing into play rising educational levels and fertility declines at each level. Sadly, this material is not yet available on a national basis⁷. A more detailed forecast for Iran will be called for once the detailed data of the 2000 DHS survey will be published.

It is therefore no surprise to find a significant discrepancy between these and the UN forecasts, chiefly due to over-estimation of the baseline population and of future fertility trends (table 3). UN figure prepared in 2000 for 2025, almost a 100 million (99.3) is much higher than the previous one of the 1998 exercise (94.5) higher than in our two scenarios (82.1-87.1), and higher than figure reached by the US Bureau of the Census : 88.4.

⁷ On a regional level, by contrast, partnership research has been conducted in the town of Shiraz by the INED with Iranian research centres, Marie Ladier_Fouladi, Homa Agha, Jean -Claude Chasteland, Youssef Courbage, and Amir Mehryar, *Famille et fécondité à Shiraz*, INED, *Dossiers et Recherches*, No. 60, July 1997. In 1991_1996, urban fertility of no more than 2.22 varied widely by educational level:

- Illiterate 3.48
- Primary education 2.88
- Lower secondary 2.40
- Upper secondary 2.02

Table 3. - Iran. Population size 1995-2025 (thousands), according to the 2 forecast scenarios, UN 1998 and UN 2000:

Year	1995	2000	2005	2010	2015	2020	2025
Scenario 1*	59186	63467	67507	71716	75689	79184	82139
Scenario 2*	59186	63467	67798	72868	78043	82803	87053
UN 1998	62324	67702	71143	76932	83054	89105	94463
UN 2000		70330	75366	80809	87103	93512	99343

* Scenario 1 = Rapid fertility decline. Scenario 2 = Slow fertility decline
Source: Calculation by the component method.

In spite of the below-replacement fertility level and due to momentum effects, the Iranian population will grow by 23 million people - 39% - by 2025 (28 million - 47% - in the slow fertility decline scenario). Mean annual rates of increase will remain high throughout the forecast period: 14 per 1000 at the turn of the century, 11 per 1000 until 2015. Ageing will be moderate: from 4.35% to 8.5% of people aged 65 and over between 1995 and 2025.

Its future population size will rank Iran among the regional giants, between Egypt and Turkey. But this strategic aspect may be only of limited importance due to Iran's peripheral geographical position compared to other Middle Eastern countries. The government is more concerned to provide jobs for the literally skyrocketing numbers of labour force entrants set to come on the market up to 2005 - up to nearly 1.8 million a year. Only after this date will Iran begin to reap the benefits of its fertility transition as the "depleted" generations reach working age.

Accompanying Table 1. - Iran. Structure by broad age groups (%) (Variant 1 only)

Age	1995	2000	2005	2010	2015	2020	2025
0-14	39.5	31.7	25.7	24.0	22.6	21.2	19.4
15-64	56.1	63.6	69.5	71.1	71.9	72.0	72.2
65+	4.3	4.7	4.8	4.9	5.5	6.7	8.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Accompanying Table 2. - Iran. Crude birth rate, crude death rate, natural increase, migration and rate of growth (per 1000) (Variant 1 only)

	1995- 2000	2000- 2005	2005- 2010	2010- 2015	2015- 2020	2020- 2025
Birth	20.4	18.4	18.0	16.3	14.3	12.7
Death	6.5	6.1	5.9	5.5	5.3	5.4
Nat. Incr.	14.0	12.3	12.1	10.8	9.0	7.3
Migration	0.0	0.0	0.0	0.0	0.0	0.0
Growth	14.0	12.3	12.1	10.8	9.0	7.3

Accompanying Table 3. - Iran. Population (thousands) by five-year age group and sex

AGE	2000			2005			2010		
	Males	Females	Both	Males	Females	Both	Males	Females	Both
0 4	2974	2821	5795	2891	2747	5639	3020	2875	5895
5 9	3077	2907	5984	2939	2781	5720	2862	2715	5578
10 14	4250	4086	8335	3068	2899	5967	2932	2774	5706
15 19	4540	4380	8920	4235	4073	8308	3059	2891	5951
20-24	3510	3468	6978	4518	4360	8878	4218	4058	8276
25 29	2513	2601	5114	3489	3448	6937	4495	4340	8835
30 34	2314	2292	4606	2496	2583	5079	3468	3429	6897
35 39	1965	1922	3886	2293	2274	4567	2476	2566	5042
40 44	1768	1709	3477	1941	1902	3843	2269	2254	4523
45 49	1383	1341	2723	1736	1686	3422	1909	1880	3789
50 54	946	987	1933	1344	1315	2659	1692	1657	3349
55 59	722	726	1448	905	960	1865	1290	1287	2577
60 64	657	609	1265	674	693	1368	849	922	1771
65 69	662	569	1232	590	563	1153	610	647	1257
70 74	471	422	893	555	495	1049	500	496	996
75+	455	420	876	540	513	1053	647	627	1274
TOTAL	32209	31258	63467	34214	33292	67507	36297	35419	71716
AGE	2015			2020			2025		
	Males	Females	Both	Males	Females	Both	Males	Females	Both
0 4	2922	2787	5708	2715	2595	5310	2522	2415	4937
5 9	2996	2849	5845	2904	2769	5673	2704	2585	5289
10 14	2857	2711	5567	2991	2846	5837	2900	2767	5668
15 19	2925	2769	5694	2851	2707	5558	2987	2844	5830
20 24	3049	2883	5932	2917	2763	5680	2846	2704	5549
25 29	4200	4043	8243	3039	2876	5914	2910	2759	5669
30 34	4472	4321	8793	4183	4030	8213	3029	2870	5899
35 39	3445	3411	6856	4448	4304	8752	4165	4020	8185
40 44	2453	2548	5002	3418	3392	6810	4420	4287	8707
45 49	2237	2232	4469	2423	2528	4951	3383	3372	6755
50 54	1865	1853	3718	2191	2205	4396	2380	2504	4883
55 59	1629	1631	3260	1803	1833	3636	2125	2194	4319
60 64	1217	1242	2459	1544	1583	3128	1718	1789	3507
65 69	774	868	1642	1118	1179	2297	1429	1515	2944
70 74	523	578	1100	670	785	1456	978	1081	2059
75+	689	712	1401	738	834	1573	872	1068	1940
TOTAL	38252	37438	75689	39954	39230	79184	41367	40772	82139