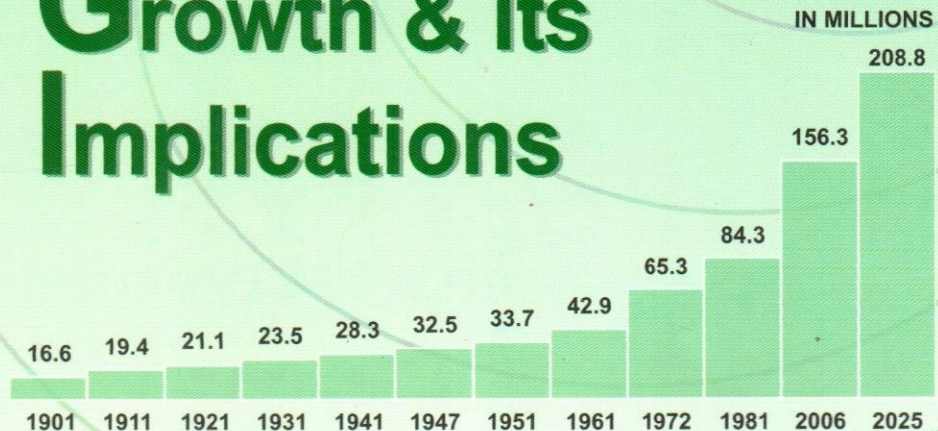


Population Growth & Its Implications



**NATIONAL INSTITUTE OF
POPULATION STUDIES ISLAMABAD**
November, 2006

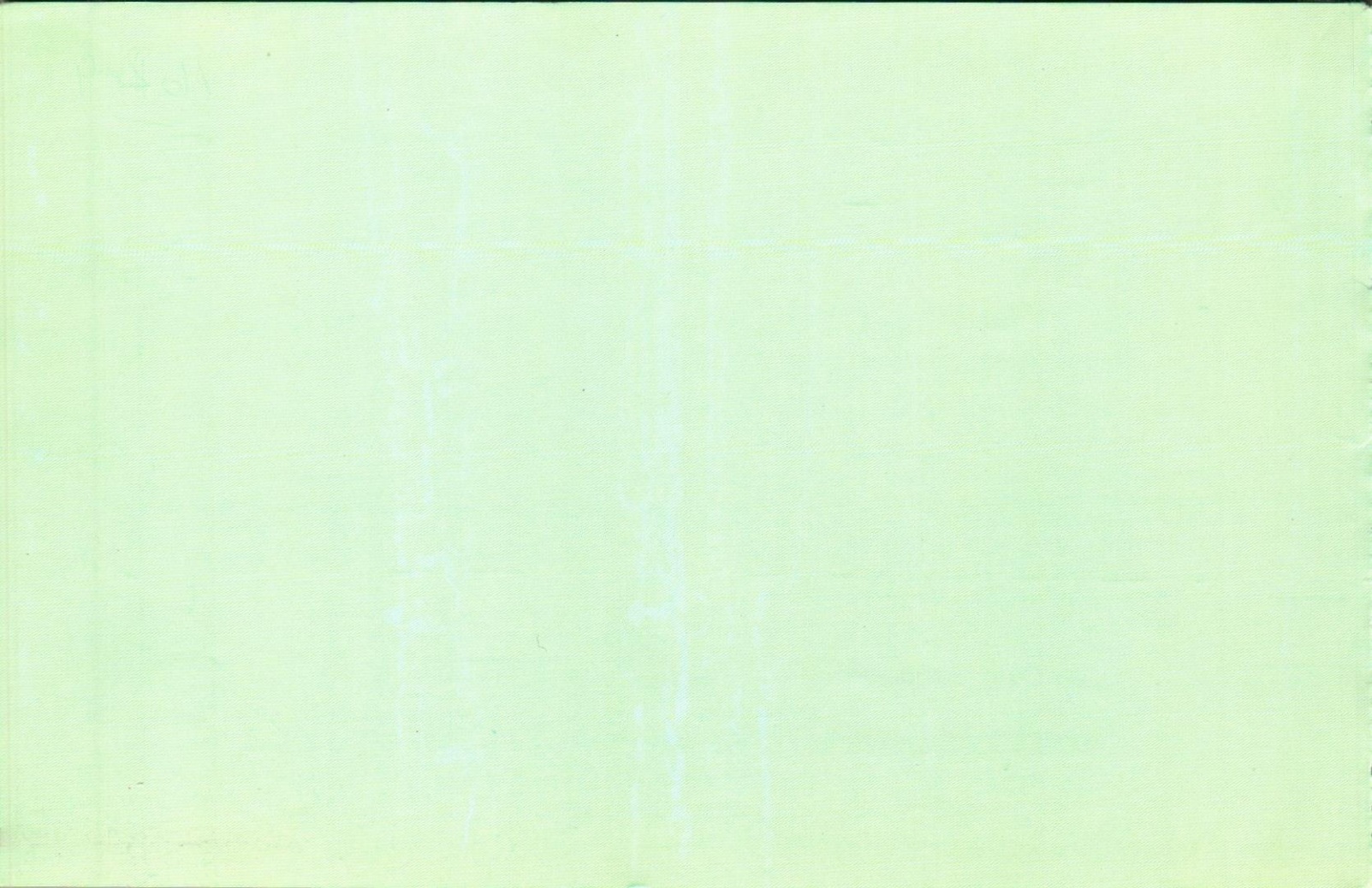
16209



NATIONAL INSTITUTE OF POPULATION STUDIES

ISLAMABAD

November, 2006



TECHNICAL NOTE

How Population Grows?

World

B - D in a year per 1000 Population

Suppose $40 - 10 = 3.0$ percent growth rate per annum

Country:

B - D + Im - Em

Province or District within each country:

B - D + Im - Em + In - Out

Urban Area within each country:

B - D + Im - Em + In - Out + Expansion

Suppose the population grows at 3 percent per annum, what does it mean?

It means the population would double in 23 years. How?

The formula is very simple: Just divide 70 years by the rate of growth: $70 / 3 = 23$ years

It may be called the Law of Seventy.

Note:

B = Births
Im = Immigration

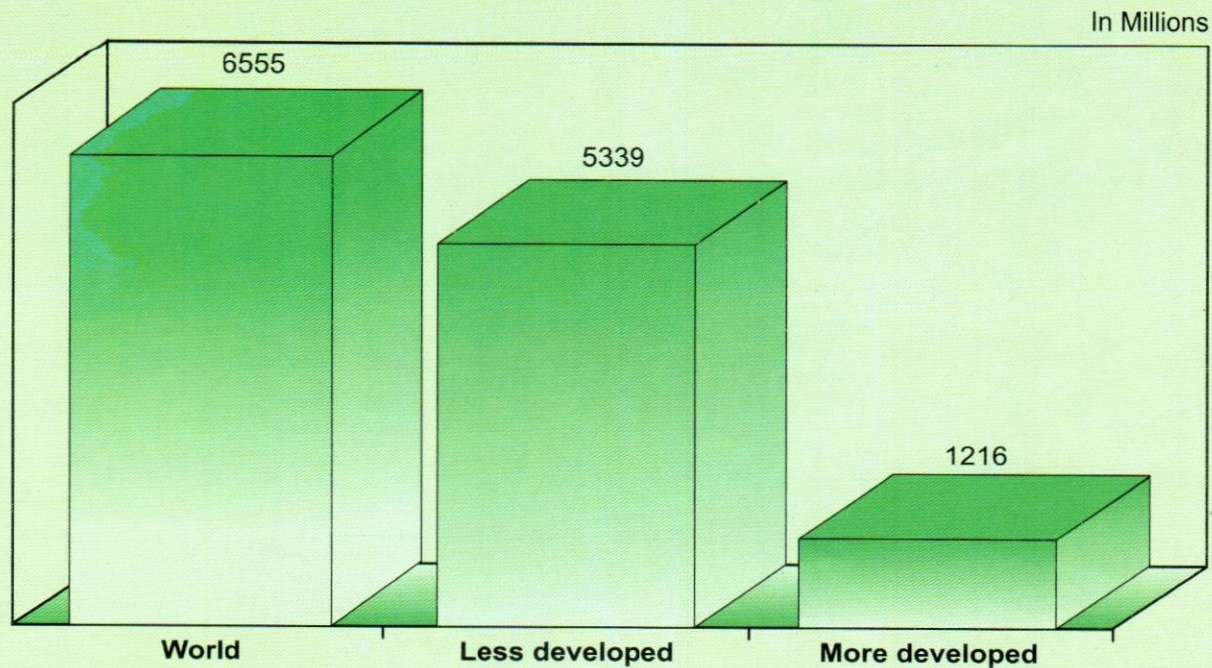
D = Deaths
Em = Emigration

CONTENTS

- World Population Profile
- Population Scenario of Pakistan
- Health and Family Planning Indicators
- Development Indicators
- Implication of Population Growth
- Pakistan Population Policy
- New Initiatives

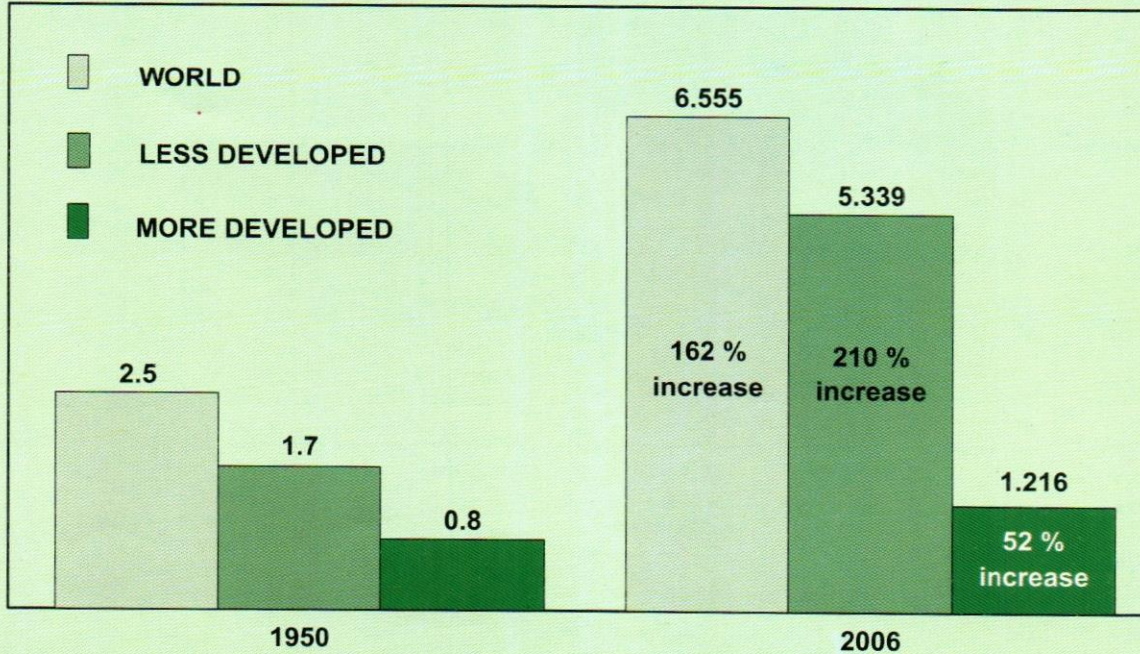
WORLD POPULATION PROFILE

POPULATION, 2006



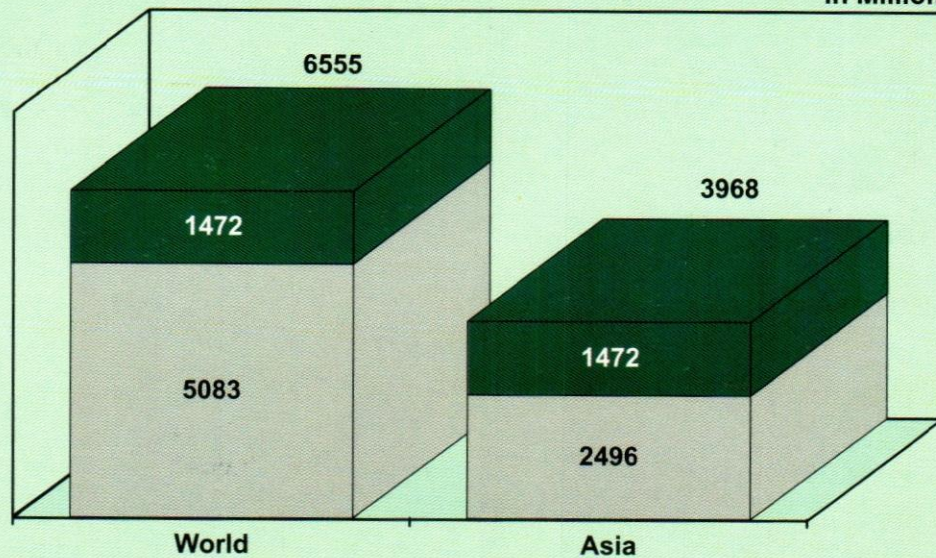
POPULATION TRENDS

In Billions



WORLD POPULATION, 2006

In Millions



Proportions:

SAARC

22.46 %

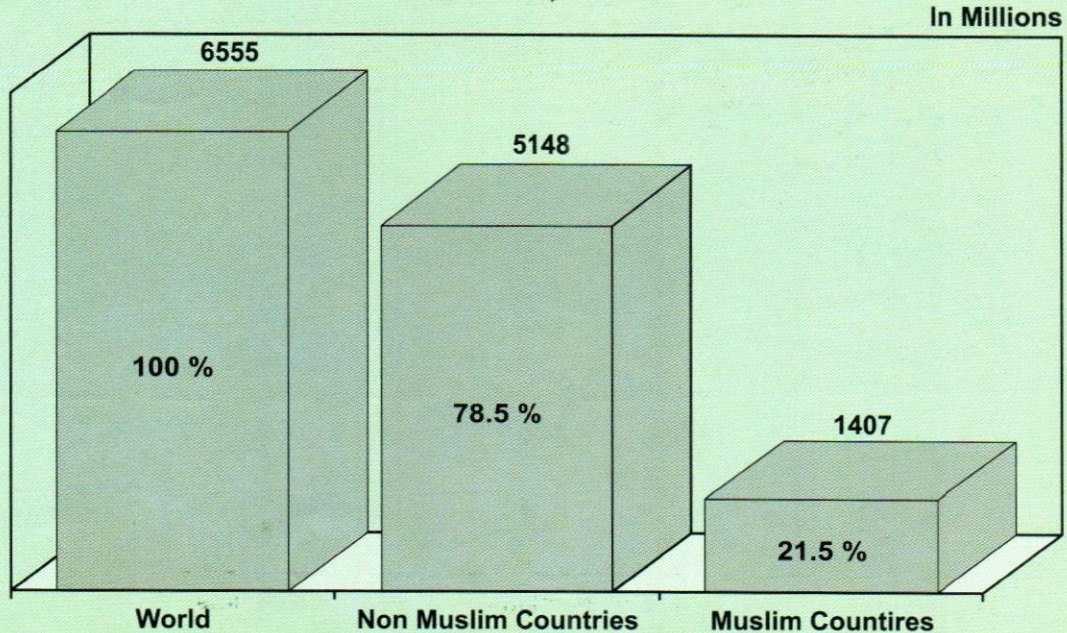
37.1%

Asia

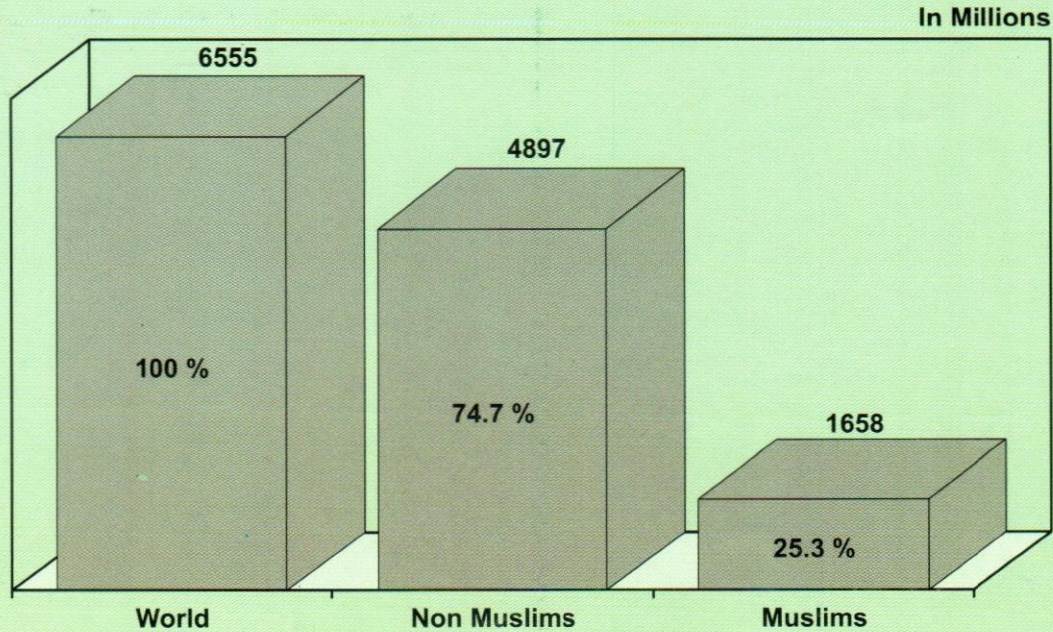
60.5 %

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POPULATION IN MUSLIM AND NON-MUSLIM COUNTRIES, 2006



POPULATION OF MUSLIMS AND NON-MUSLIMS, 2006



TIME TAKEN TO ADD One Billion

Year	World Population	Years
1804	1	---
1927	2	123
1960	3	33
1974	4	14
1987	5	13
1999	6	12

POPULATION AND GNI/CAPITA

Regions	Population, 2006 (Million)	GNI - PPP/Capita, 2005 (\$)
World	6,555	9,190
More developed	1,216	27,790
Less developed	5,339	4,950

POPULATION SCENARIO PAKISTAN

PAKISTAN

Share of World

2006

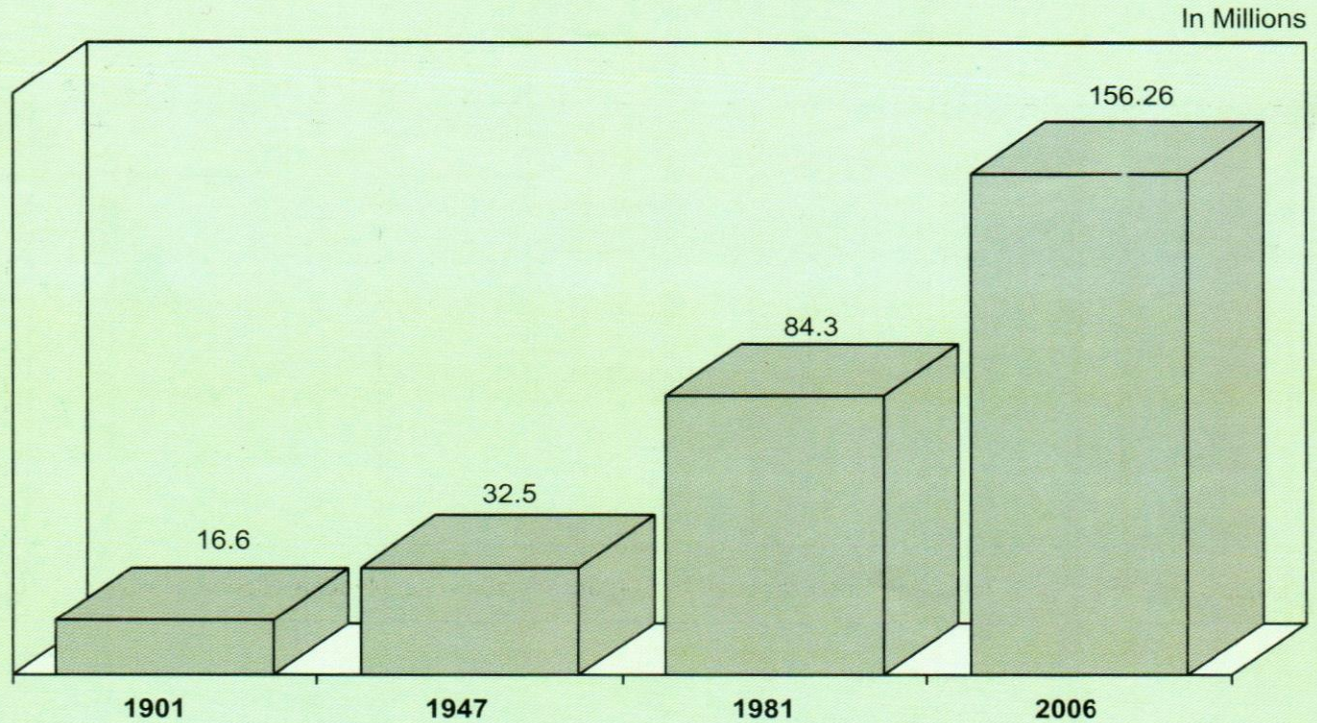
Area	0.796 (Million Sq. Km)	0.60 %
Population	156.26 (Million)	2.38%

PAKISTAN'S POPULATION RANK ORDER IN THE WORLD

Year	Rank	Population (Million)
1950	14	33.0
2006	6*	156.26

* After China, India, USA, Indonesia and Brazil having Surpassed Japan, Bangladesh, Nigeria, Russia etc.

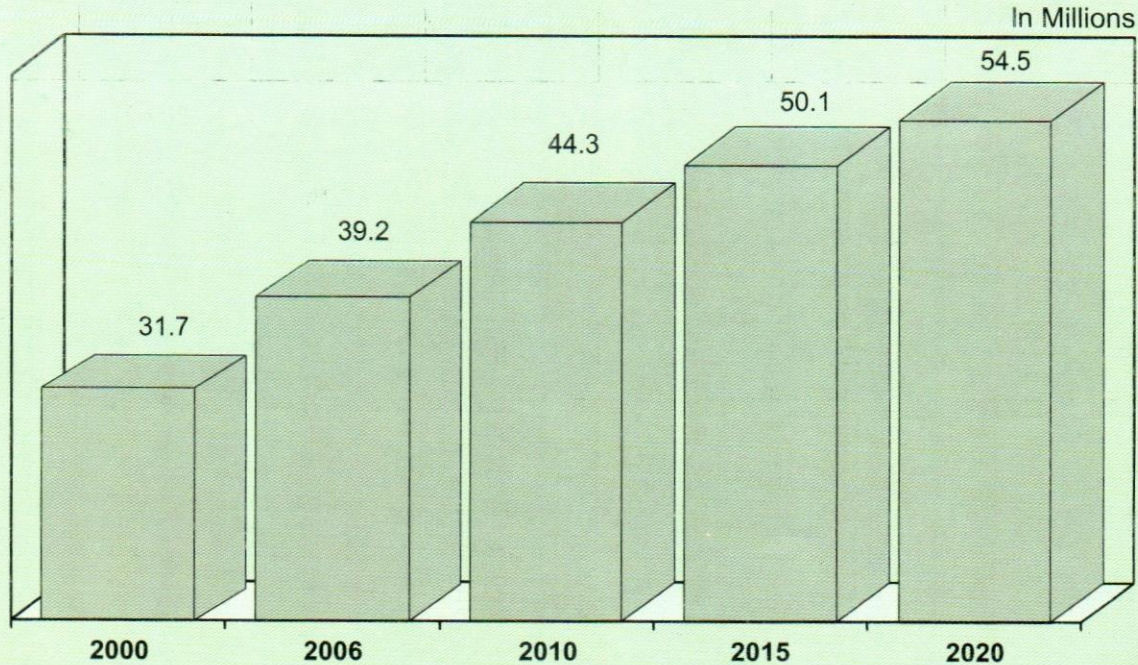
POPULATION SIZE OF PAKISTAN



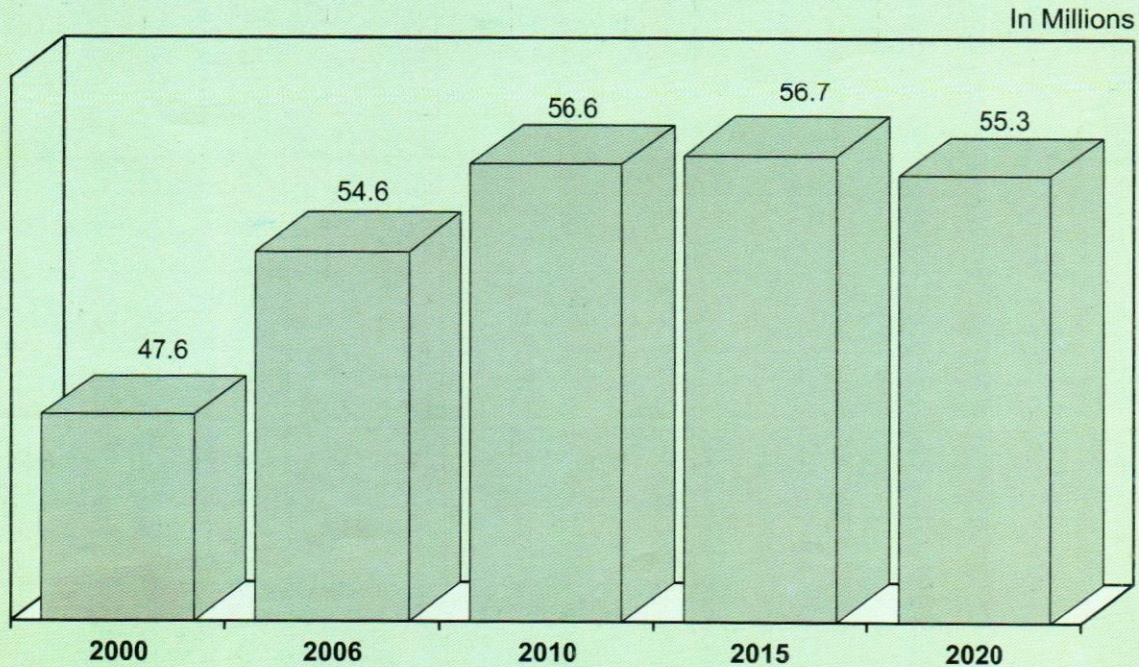
POPULATION PROJECTIONS BY PROVINCE (1998 - 2025)

Region	1998	2006	2010	2015	2020	2025
Pakistan	133.32	156.26	161.86	175.65	189.42	202.11
Punjab	74.20	86.26	89.11	96.15	103.255	109.86
Sindh	30.66	35.87	37.04	39.96	42.88	45.40
NWFP	17.90	21.39	22.33	24.59	26.74	28.85
Balochistan	6.62	8.00	8.38	9.32	10.24	11.08
FATA	3.12	3.62	3.79	4.23	4.71	5.18
Islamabad	0.83	1.12	1.21	1.41	1.59	1.74

PROJECTED POPULATION, WOMEN OF REPRODUCTIVE AGE (15 - 49 YEARS)



PROJECTED POPULATION, OF YOUTH (10-24 YEARS)



POPULATION BY SELECTED AGE GROUPS

In Millions

Age Group	2000	2006	2010	2015	2020
00 - 04	19.75	18.68	18.35	17.87	17.48
05 - 09	19.59	18.84	18.27	18.08	17.67
10 - 18	31.27	34.50	34.84	33.36	32.64
19 - 24	16.31	20.05	21.75	23.32	22.65
25 - 59	43.67	54.77	64.03	76.76	90.01
60 - 64	2.75	3.00	3.28	3.79	4.60
65 +	5.78	6.42	6.85	7.60	8.71
TOTAL	139.12	156.26	167.37	180.78	193.76

POPULATION GROWTH RATE

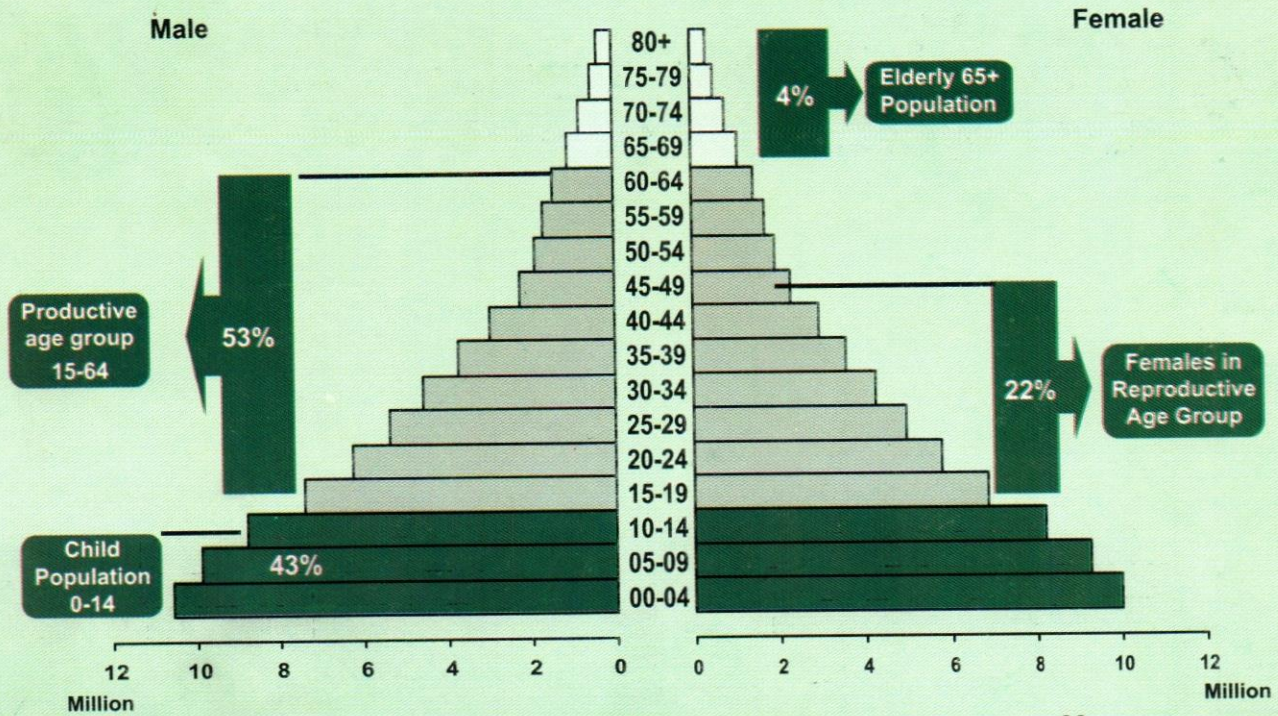
Period	Growth Rate (%)
1951 - 61	2.45
1961 - 72	3.66
1972 - 81	3.05
1981 - 98	2.69
2006	1.86

NET ADDITION IN POPULATION

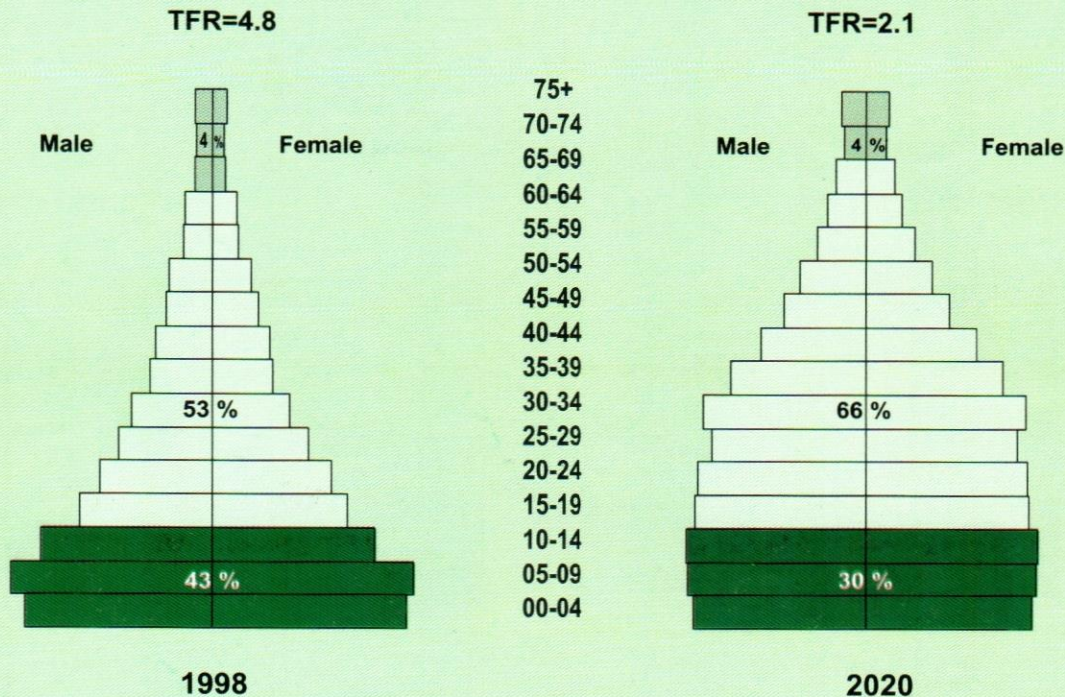
	Births	Deaths	Addition
In one year	4,160,000	1,290,000	2,870,000
One month	346,666	107,500	239,166
One day	11,397	3,534	7,863
One minute	8	3	5

POPULATION PYRAMID

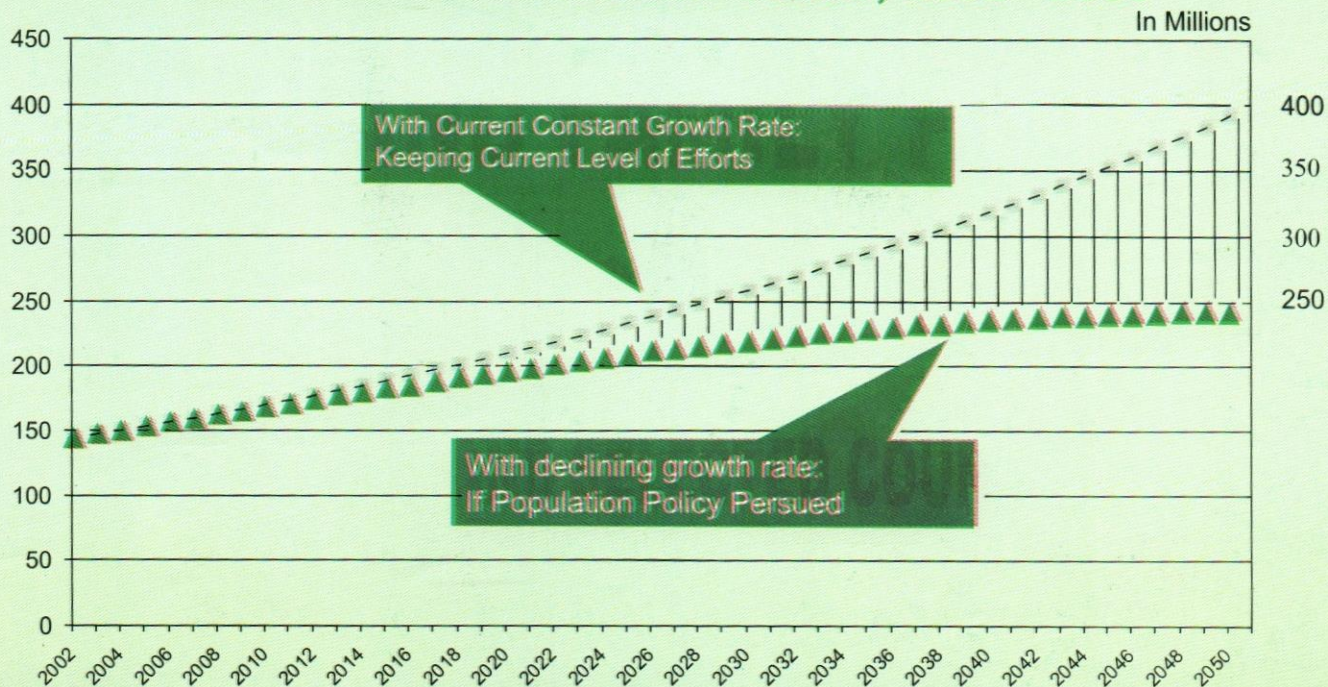
1998 Census

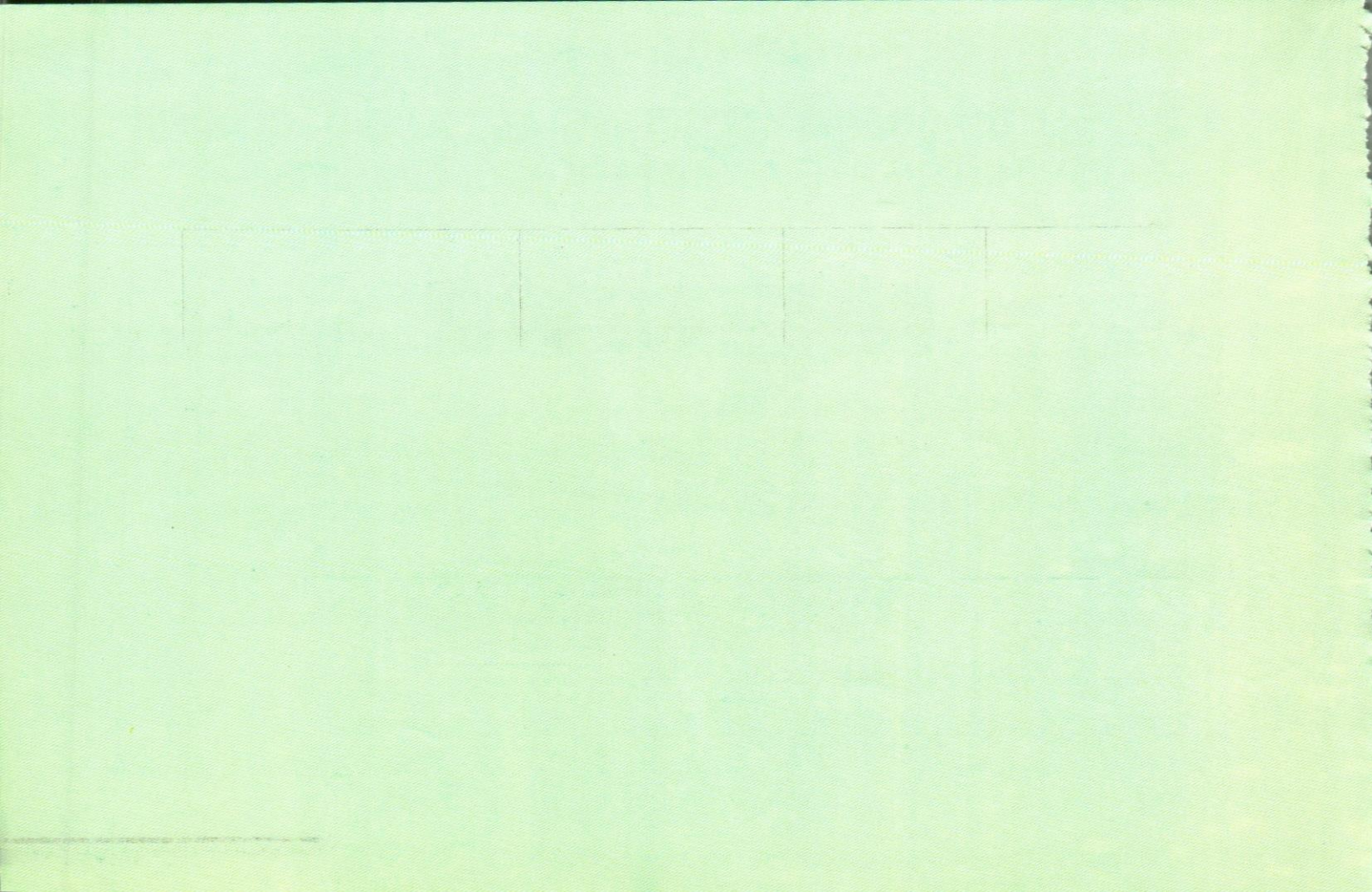


POPULATION PYRAMID, 1998 & 2020



POPULATION GROWTH BY CONSTANT AND DECLINING GROWTH RATE ASSUMPTIONS, 2002 - 2050





HEALTH AND FAMILY PLANNING INDICATORS

PAKISTAN AND SELECTED COUNTRIES

SELECTED HEALTH INDICATORS

Muslim Countries	Births attended by skilled health personnel (%)	Infants with low birth weight (%)	Maternal Mortality Ratio
Afghanistan	—	—	—
Algeria	96	7	140
Bangladesh	13	30	380
Egypt	69	12	84
Ethiopia	6	15	850
Indonesia	72	9	230
Iran	90	7	76

Contd.

SELECTED HEALTH INDICATORS

Muslim Countries	Births attended by skilled health personnel (%)	Infants with low birth weight (%)	Maternal Mortality Ratio
Malaysia	97	10	41
Morocco	63	11	220
Nigeria	35	14	800
Pakistan	20	19	500
Sudan	87	31	590
Turkey	83	16	70
Uzbekistan	96	7	24

INFANT MORTALITY AND LIFE EXPECTANCY

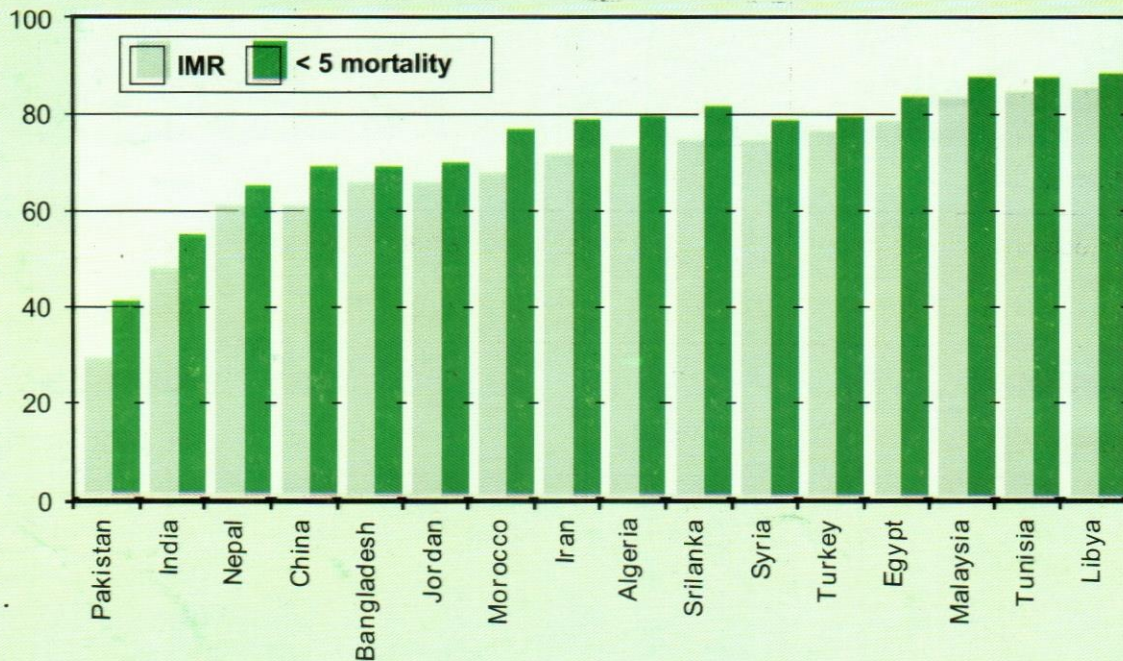
Muslim Countries	IMR	Life Expectancy (Male) Years	Life Expectancy (Female) Years
Afghanistan	172	41.0	42.0
Algeria	35	70.1	72.7
Bangladesh	56	62.5	64.2
Egypt	26	68.0	72.4
Ethiopia	110	46.8	48.8
Indonesia	30	65.3	69.2
Iran	32	69.2	72.3

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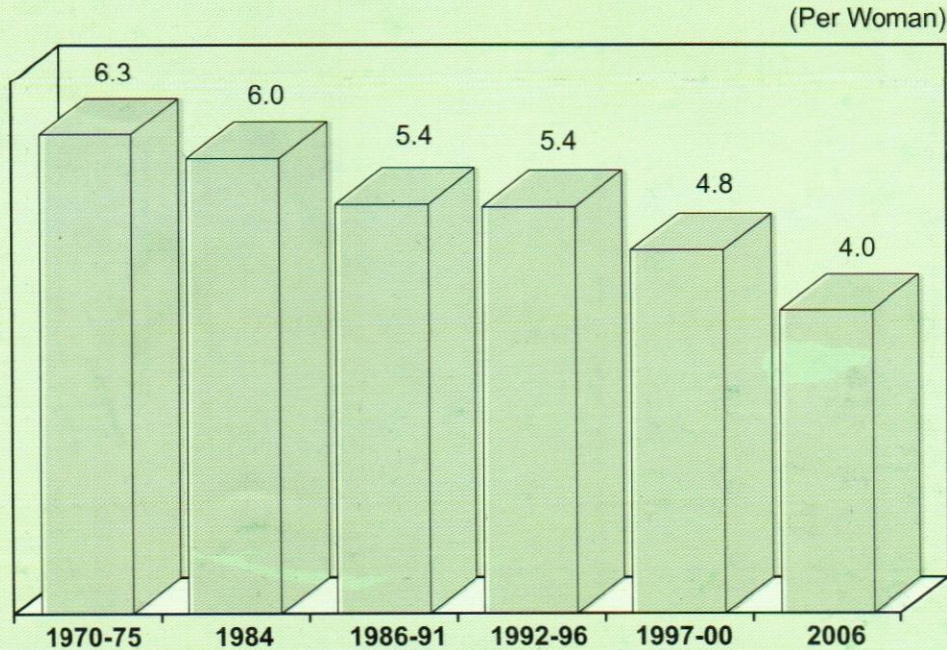
INFANT MORTALITY AND LIFE EXPECTANCY

Muslim Countries	IMR	Life Expectancy (Male) Years	Life Expectancy (Female) Years
Malaysia	10	71.1	75.8
Morocco	38	67.8	72.2
Nigeria	101	43.2	43.5
Pakistan	77	63.2	63.6
Sudan	63	55.1	58.0
Turkey	28	66.6	71.3
Uzbekistan	57	63.4	69.9

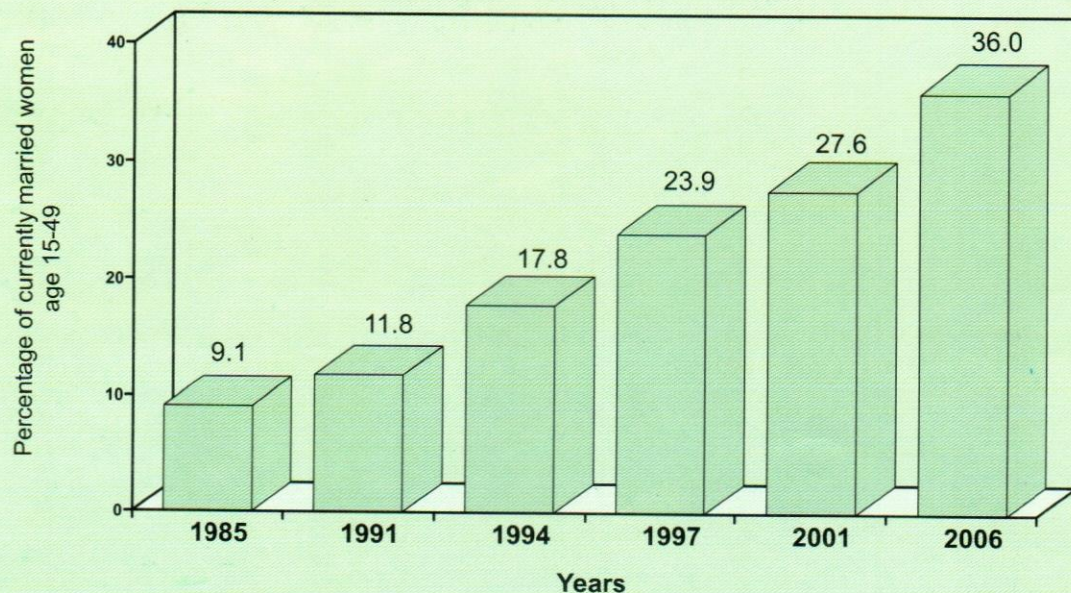
PERCENT DECLINE IN MORTALITY RATES IN SELECTED COUNTRIES 1970-75 TO 2000-05



TREND IN TOTAL FERTILITY RATE PAKISTAN, 1970-2006



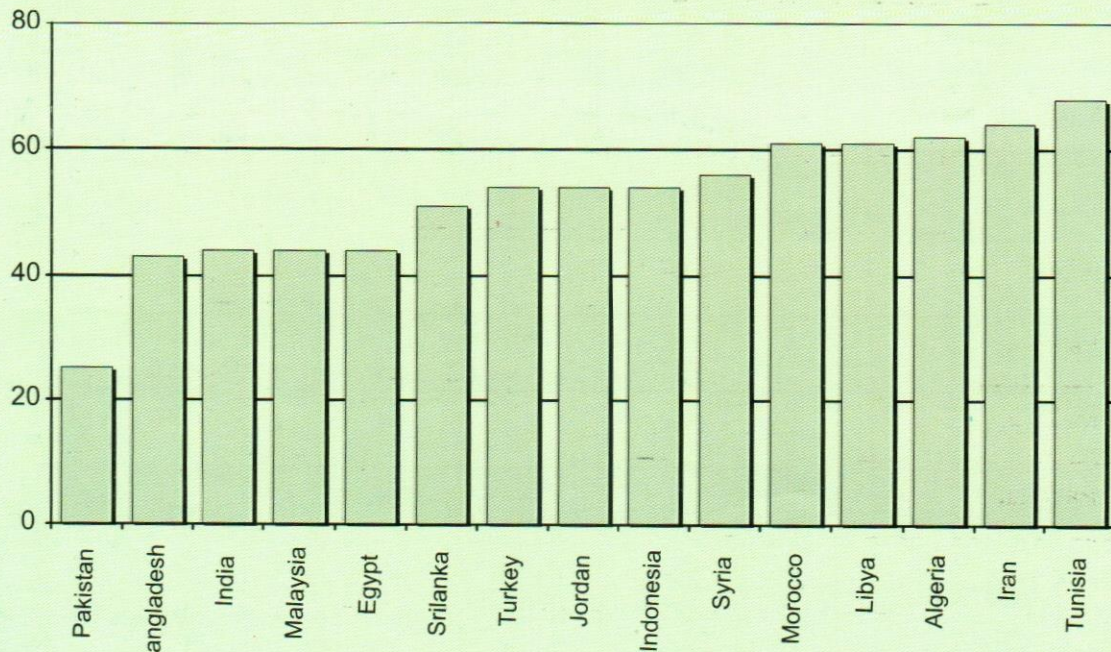
TRENDS IN CONTRACEPTIVE PREVALENCE RATE (%), PAKISTAN, 1985-2006



TOTAL FERTILITY RATE, CONTRACEPTIVE PREVALENCE RATE AND POPULATION GROWTH RATE

Muslim Countries	Total Fertility Rate	Contraceptive Prevalence Rate	Population Growth Rate
Bangladesh	3.0	58	1.5
Egypt	3.1	59	2.1
Indonesia	2.4	60	1.4
Iran	2.0	74	1.2
Malaysia	2.6	55	1.6
Pakistan	4.0	36	1.9
Turkey	2.2	71	1.3

PERCENT DECLINE IN TFR IN SELECTED COUNTRIES 1970-75 TO 2000-05



DEVELOPMENT INDICATORS:
MUSLIM COUNTRIES OF
25 MILLION OR MORE POPULATION

POPULATION LIVING BELOW INTERNATIONAL POVERTY LINE

Muslim Countries	Total Population 2006 (million)	Population living below \$1 a day (%)	Population living below \$2 a day (%)
Afghanistan	31.1	—	—
Algeria	33.5	2.0	15.1
Bangladesh	141.3	36.0	82.8
Egypt	75.4	3.1	43.9
Ethiopia	74.8	23.0	77.8
Indonesia	218.7	7.5	52.4
Iran	70.3	2.0	7.3

POPULATION LIVING BELOW INTERNATIONAL POVERTY LINE

Muslim Countries	Total Population	Population living below \$1 a day (%)	Population living below \$2 a day (%)
Malaysia	26.9	2.0	9.3
Morocco	31.7	2.0	14.3
Nigeria	134.5	70.8	92.4
Pakistan	156.3	17.0	73.6
Sudan	41.2	—	—
Turkey	73.7	3.4	18.7
Uzbekistan	26.2	21.8	77.5

RANKING BY HUMAN DEVELOPMENT AND HUMAN POVERTY INDICES

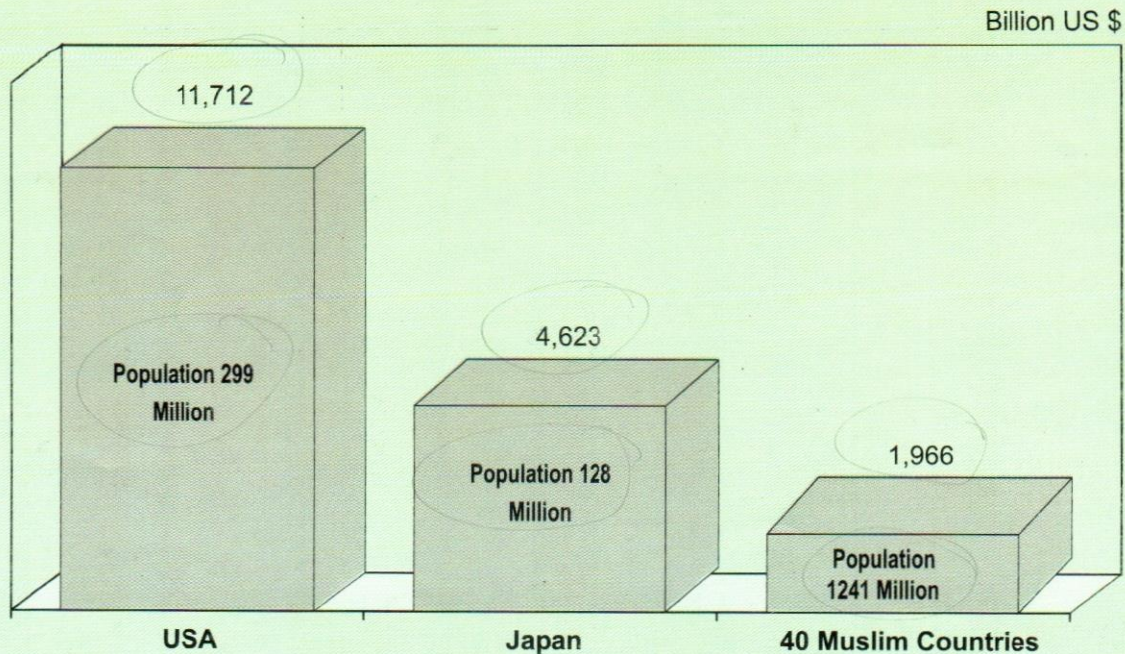
Muslim Countries	Rank Order Human Development Index	Rank Order Human Poverty Index
Afghanistan	—	—
Algeria	102/177	46/102
Bangladesh	137/177	85/102
Egypt	111/177	44/102
Ethiopia	170/177	98/102
Indonesia	108/177	41/102
Iran	96/177	35/102

Contd.

RANKING BY HUMAN DEVELOPMENT AND HUMAN POVERTY INDICES

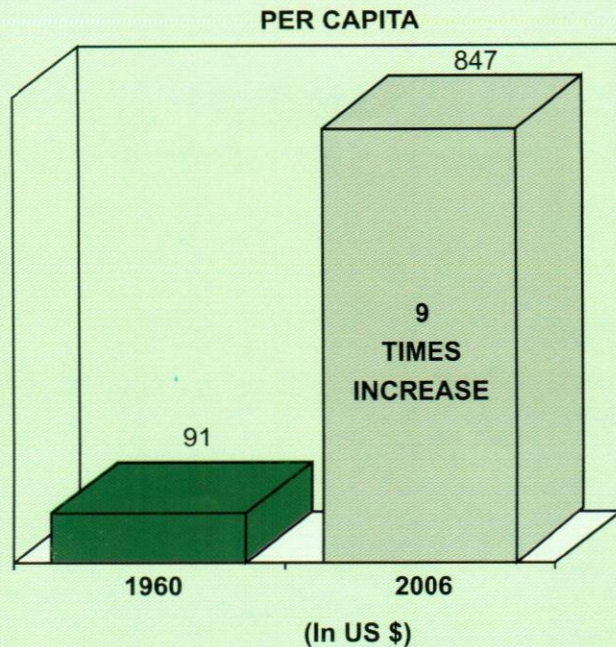
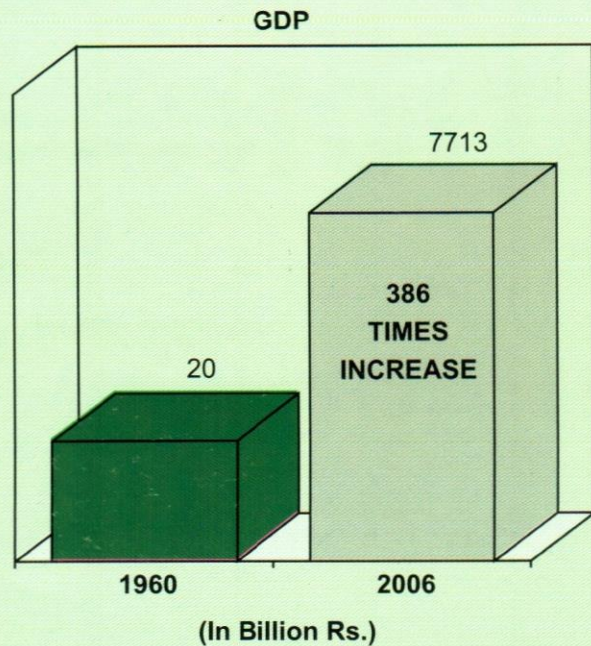
Muslim Countries	Rank Order Human Development Index	Rank Order Human Poverty Index
Malaysia	61/177	15/102
Morocco	123/177	59/102
Nigeria	159/177	76/102
Pakistan	134/177	65/102
Saudi Arabia	76/177	—
Sudan	141/177	54/102
Turkey	92/177	21/102
Uzbekistan	113/177	----

GROSS DOMESTIC PRODUCT, 2004



IMPLICATIONS OF POPULATION GROWTH

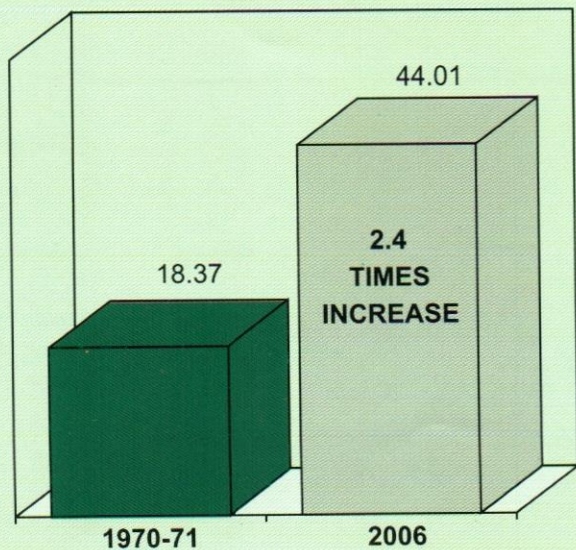
GDP AND PER CAPITA INCOME OF PAKISTAN 1960 - 2006



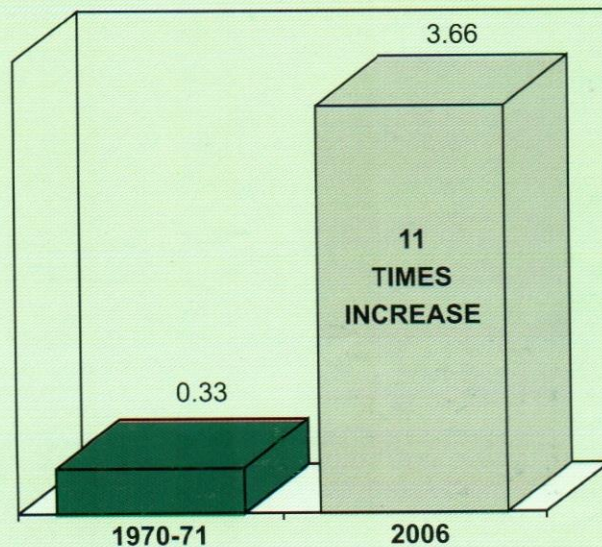
EMPLOYMENT AND UNEMPLOYMENT

(Persons in Million)

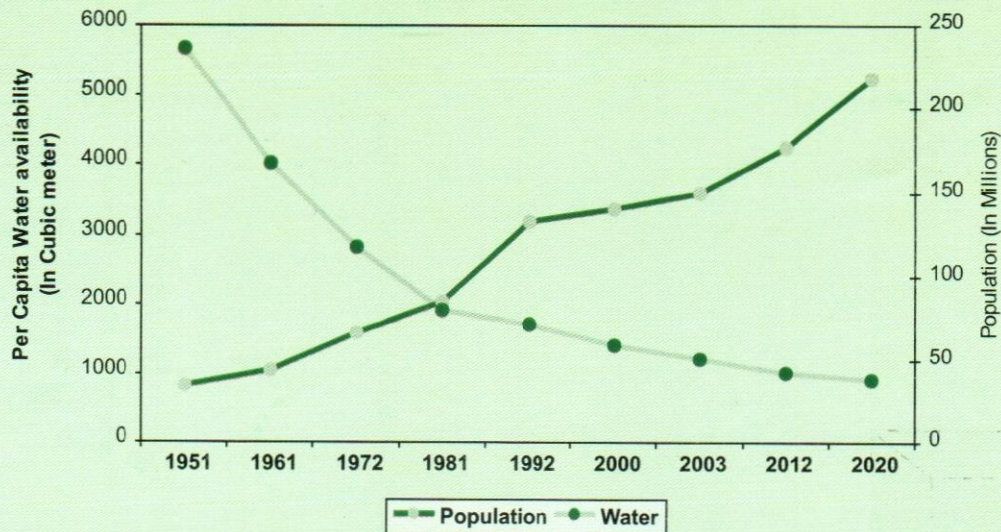
Employed



Unemployed



WATER AVAILABILITY VS POPULATION GROWTH



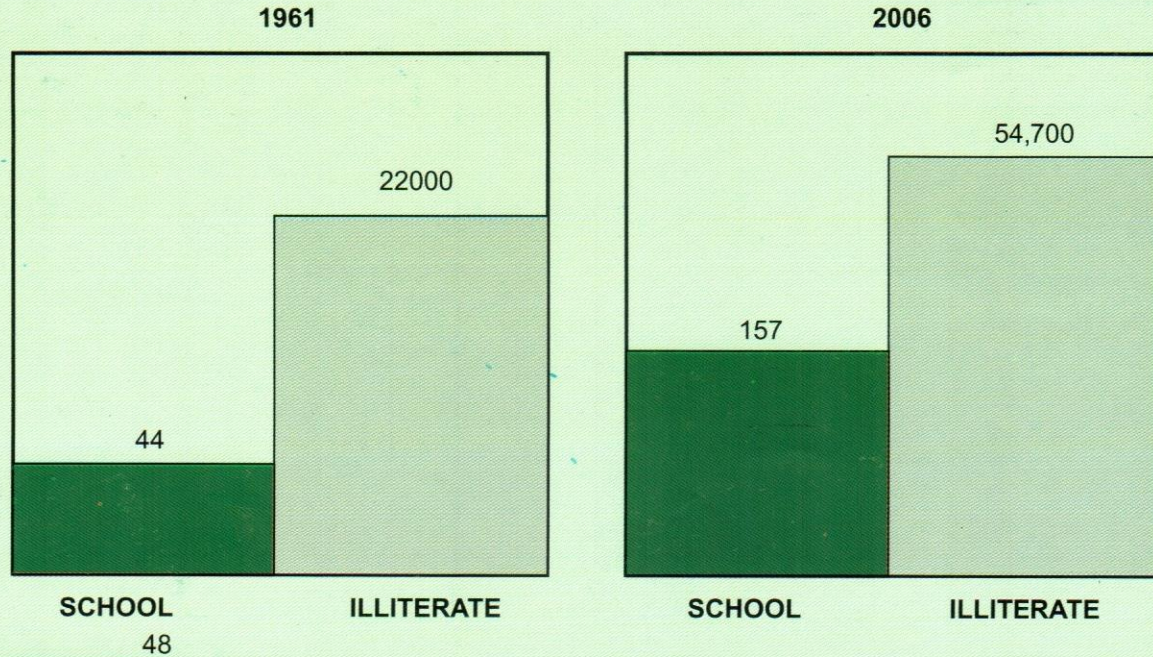
Parameters/Years	1951	1961	1972	1981	1992	2000	2003	2012	2020
Water availability	5650	4000	2800	1900	1700	1400	1200	1000	885
Population	33.7	42.8	65.3	84.2	132.0	140.0	149.0	176.0	216.8

NUMBER OF PRIVATE FARMS

Farm Size (Acres)	1980		2000	
	Number (Million)	Percent	Number (Million)	Percent
Under 3 acres	2.07	50.90	4.78	72.2
03 - 05	0.92	22.60	0.89	13.4
05 - 10	0.71	17.40	0.58	08.8
10 +	0.37	09.10	0.37	05.6
Total	4.07	100.0	6.62	100.0

PRIMARY SCHOOLS AND ILLITERATE POPULATION 1961 - 2006

(In Thousand)



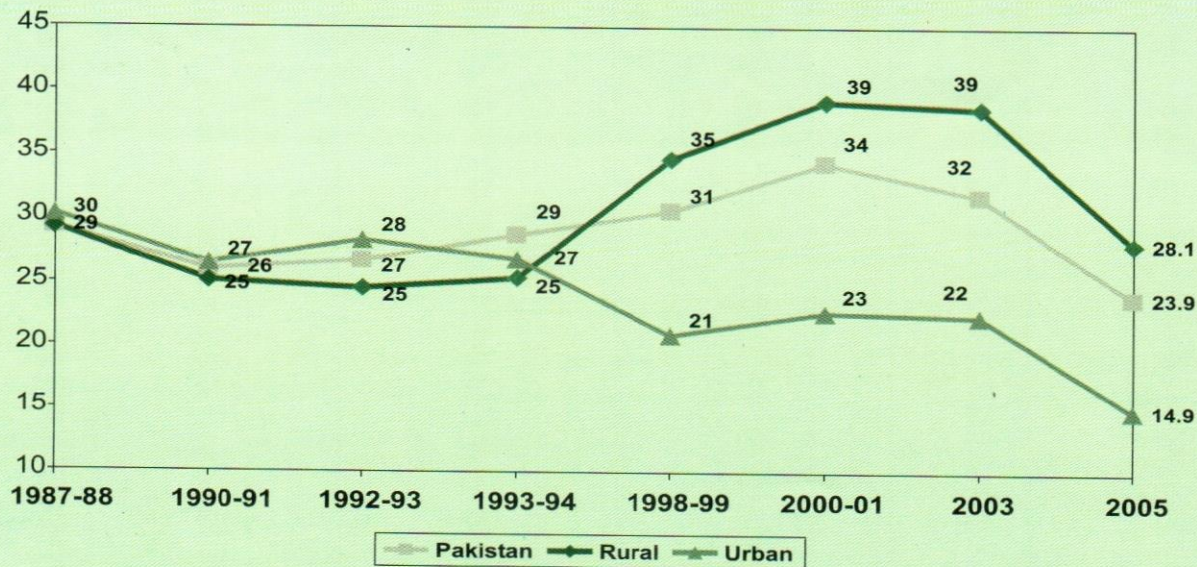
POPULATION LITERACY RATES AND NUMBER OF ILLITERATES BY PROVINCE, 2006

Region	Population age 10 + (Millions)		Literacy rate (%)		Number of Illiterate (Millions)		
	Male	Female	Male	Female	Male	Female	Total
Punjab	34.4	32.39	65	44	12.04	18.138	30.178
Sindh	14.48	12.91	68	41	4.634	7.617	12.251
NWFP	8.04	7.72	64	26	2.894	5.713	8.607
Balochistan	3.10	2.71	52	19	1.488	2.195	3.683
Total	60.02	55.73	65	40	21.056	33.663	54.719

Literacy rate at national level was 26.9 percent for male and 8.2 percent for female in 1961

ESTIMATES OF POVERTY IN PAKISTAN

(Based on 2350 calories per adult) (%)



OTHER HARD FACTS

In Millions

Population living below poverty line	39.7
Population with no access to safe drinking water	57.9
Population with one room houses	59.0
Population with no sanitation	79.6

SUMMARY IMPLICATIONS

SHORTAGE OF:	
o Educational facilities	o Living space
o Health services	o Arable land
o Housing units	o Clean water
o Food	
INCREASE IN:	
o Unemployment	o Over crowding
o Land fragmentation	o Katchi abadies
o Import of food etc.	o Poverty
o Environmental problems	o Unrest
o Congestion in households	o Crime

PAKISTAN

POPULATION POLICY 2002

VISION

- Achieve population stabilization by 2070 though (a) universal coverage of population welfare programme by 2010; and (b) achieving replacement level fertility by 2020.

POLICY GOALS

- Attain a balance between resources and population growth within the broad parameters of the ICPD paradigm.
- Address various dimensions of the population issue within national laws, development priorities while remaining within the national, social and cultural norms.
- Increase awareness of the adverse consequences of rapid population growth at the national, provincial, district and community levels.
- Promote family planning as an entitlement based on informed and voluntary choice.
- Attain a reduction in fertility through improvement in access and quality of reproductive health services.
- Promotion of research: NIPS has been mandated to do research "Covering all aspects of population and development such as education, health, women empowerment, labour force, ageing, adolescent and urbanization".

POLICY OBJECTIVES

- To attain Population Stabilization through:
- Reduction in TFR to 2.1 by 2020
- Increase CPR to 60% by 2020.
- Reduction in PGR to 1.3% by 2020.

STRATEGIES

- Launch advocacy campaigns for all segments of the society.
- Ensure ownership and participation of communities and stakeholders in service delivery.
- Reduce unmet need for quality family planning & RH services.
- Adopt a shift from target oriented to people-centred approach.
- Create a comprehensive network of family planning & RH services in Pakistan.
- Build stronger partnership with all stakeholders in private and public sectors.
- Mainstream population factor as a cross cutting issue.
- Strengthen contribution to population activities by all stakeholders.
- Expand Social Marketing of contraceptives: accessible and affordable in rural and under-served areas.
- Bring attitudinal change in men to adopt small family norms and responsible parenthood.
- Involvement of opinion leaders & religious scholars.
- Expand family planning services to under-served areas

SERVICE DELIVERY COMPONENTS

PROGRAMME:		
Family Welfare Centres (FWC)	2853	2,341
Reproductive Health Services 'A' Centres	260	130
Mobile Service Units	292	282
Male Mobilizers		3,435
NON-PROGRAMME:		
RHS-B Centres		167
Registered Medical Practitioners		17,588
Hakims and Homoeopaths		14,763
Health outlets of Health departments		13,000
Outlets of Provincial Line departments		6,580
Lady Health Workers of National Programme for FP and Primary Health care		96,000
RESEARCH AND TRAININGS:		
National Institute of Population Studies, Islamabad		1
National Research Institute of Fertility Care, Karachi		1
Population Welfare Training Institutes		2
Regional Training Institutes		12

NEW INITIATIVES

POPULATION SECTOR INITIATIVES

- **National Population commission - 2006**
- **Provincial Population Councils - 2006**
- **Joint Steering committee of Health & Population - 2005**
- **Social Sector Coordination Committee**
- **Focal Points in all 38 Ministries/Divisions**
- **Revitalization of District Technical committees**

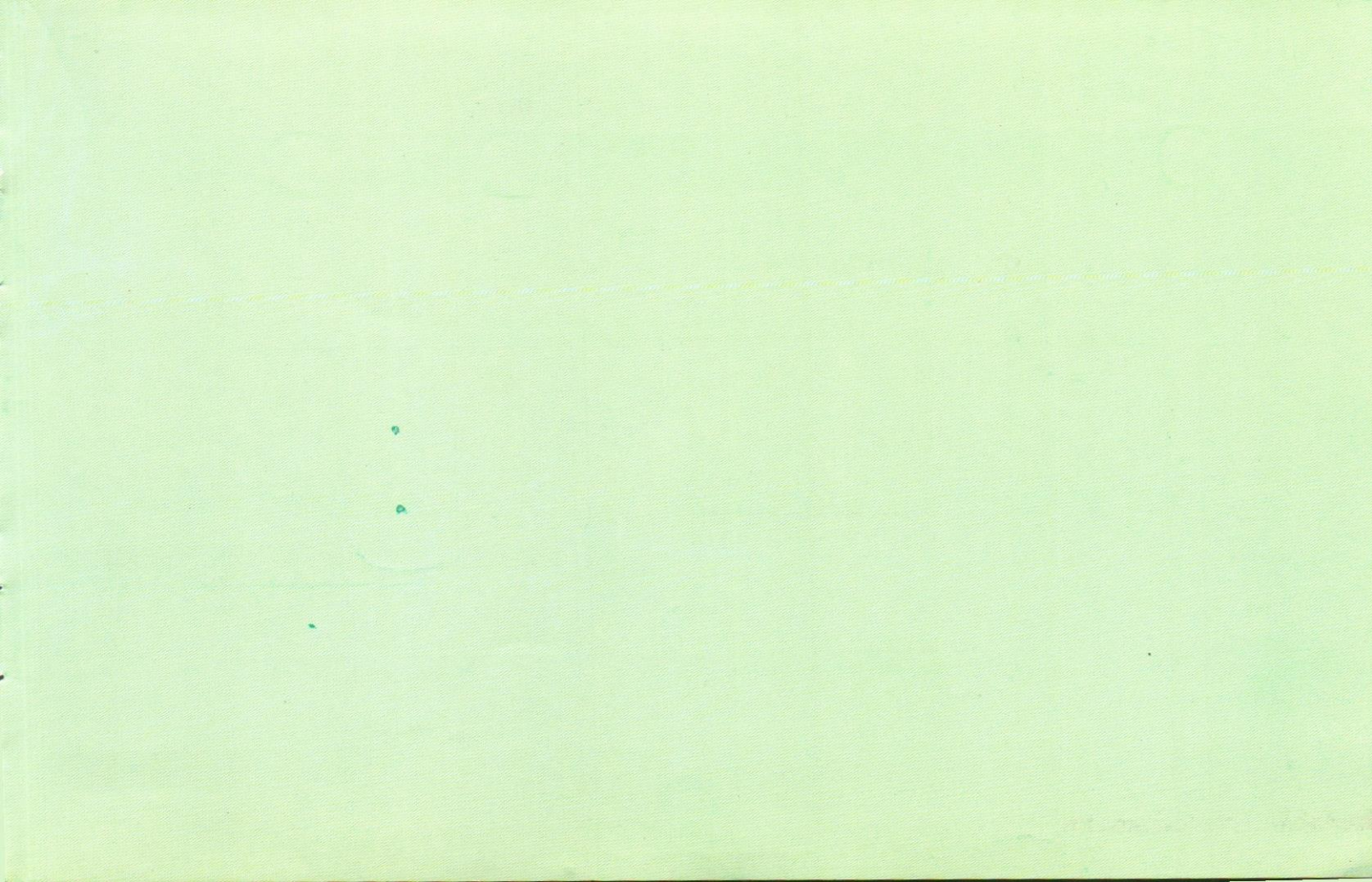
POPULATION SECTOR INITIATIVES

- **Expansion of Service Delivery Outlets**
- **Capacity Building of Training & Research Institutes**
- **Partnership with Private & Corporate Sector Organization**
- **ISO Certification of Service Delivery Outlets**

Contd.

POPULATION SECTOR INITIATIVES

- International Ulama Conference - 2005
- Follow-up of IDPD - 2006
- International Population Summit - 2005 ✓
- Follow-up of Population Summit - 2006 ✓
- Advocacy Seminar for Parliamentarians - 2005 ✓
- Donors Collaboration





NATIONAL INSTITUTE OF POPULATION STUDIES (NIPS)

NIPS aspires to attain prominence as "Centre of Excellence", recognizable nationally and internationally for reliability and high quality of its research, Training and human resources development. Monitoring and evaluation in the areas of population and development. Conceived to fulfill explicit aims. NIPS is set out to play a key role in the dynamics of national population and its complexities. Its canvas of activities is challengingly broad embracing socioeconomic dimensions of a determined young nation.

An autonomous organisation with a board of governors and an Advisory Committee of experts. NIPS's charter assign to it the responsibility of undertaking interdisciplinary research, impact studies of the population welfare programme, dissemination of information, training, special Surveys and action-oriented research. It acts to interlink monitoring or development strategies with the changing demographic situation. Thus at macro level NIPS concerns itself with population and development; policy and programme evaluation; social and behavioral change surveys and action-oriented research pertaining to population welfare undertaken by both the public and private sector.