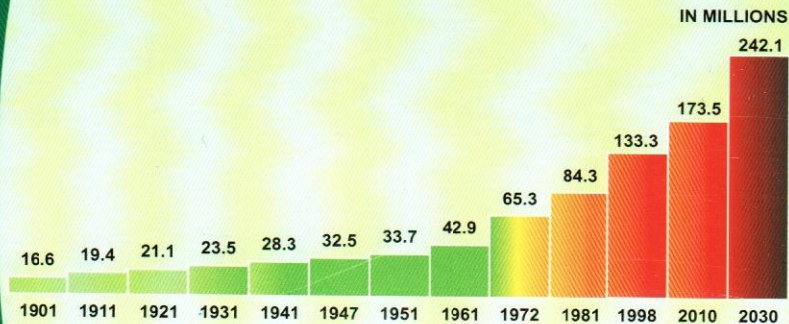
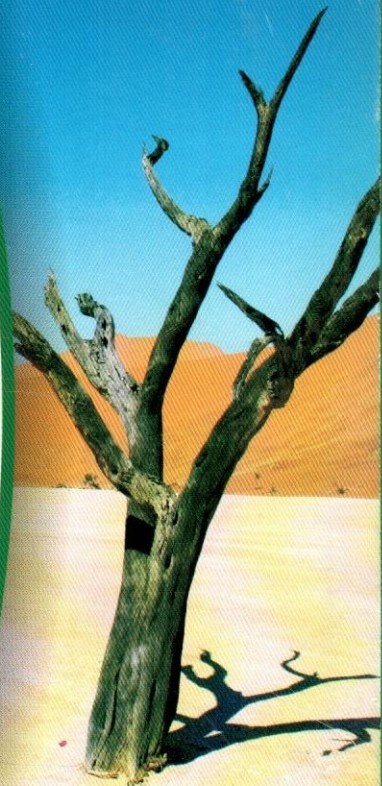


# POPULATION GROWTH AND ITS IMPLICATIONS



**National Institute of Population Studies**

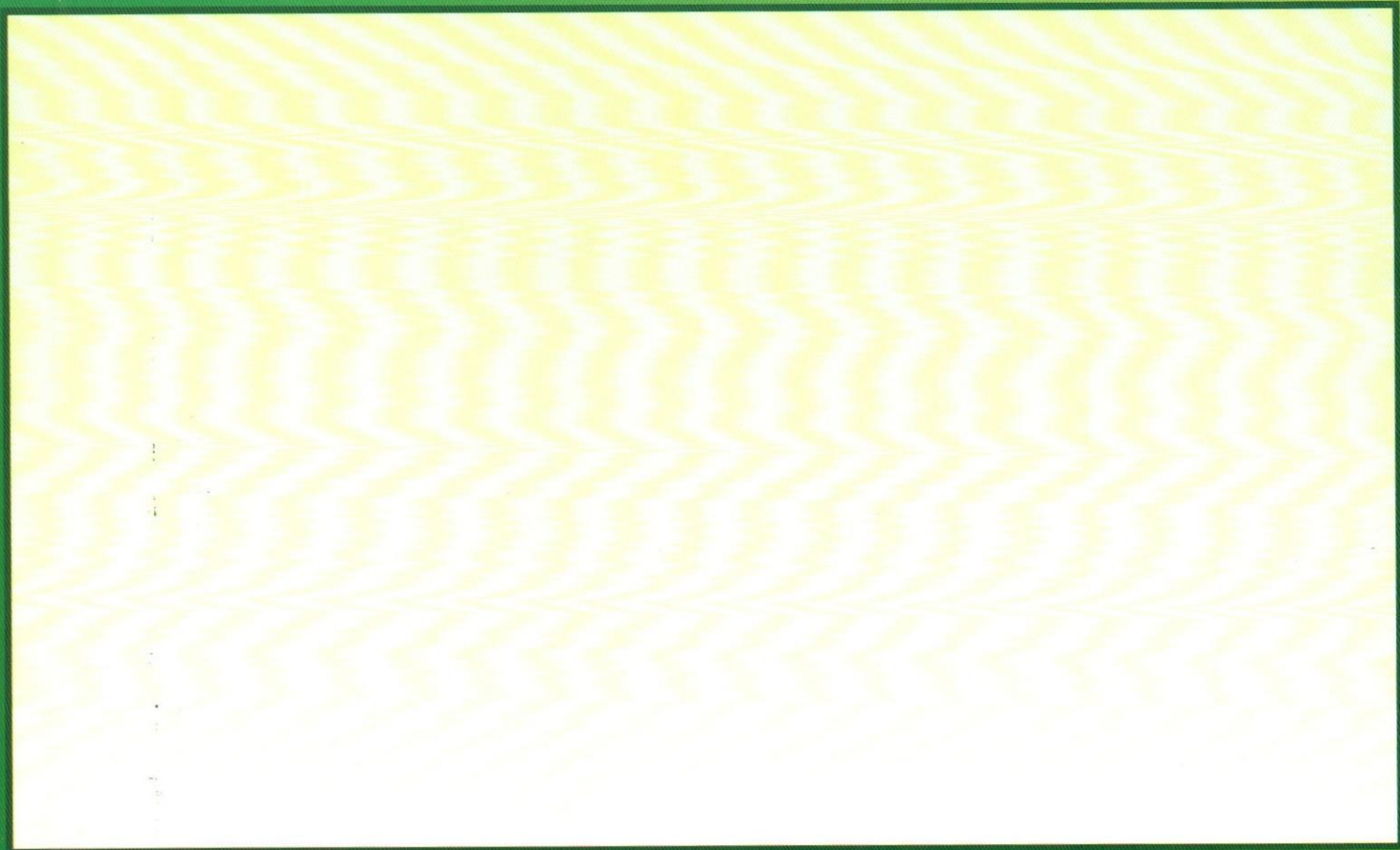
July, 2010





**NATIONAL INSTITUTE OF POPULATION STUDIES  
ISLAMABAD**

July, 2010



# 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 70 years. How?

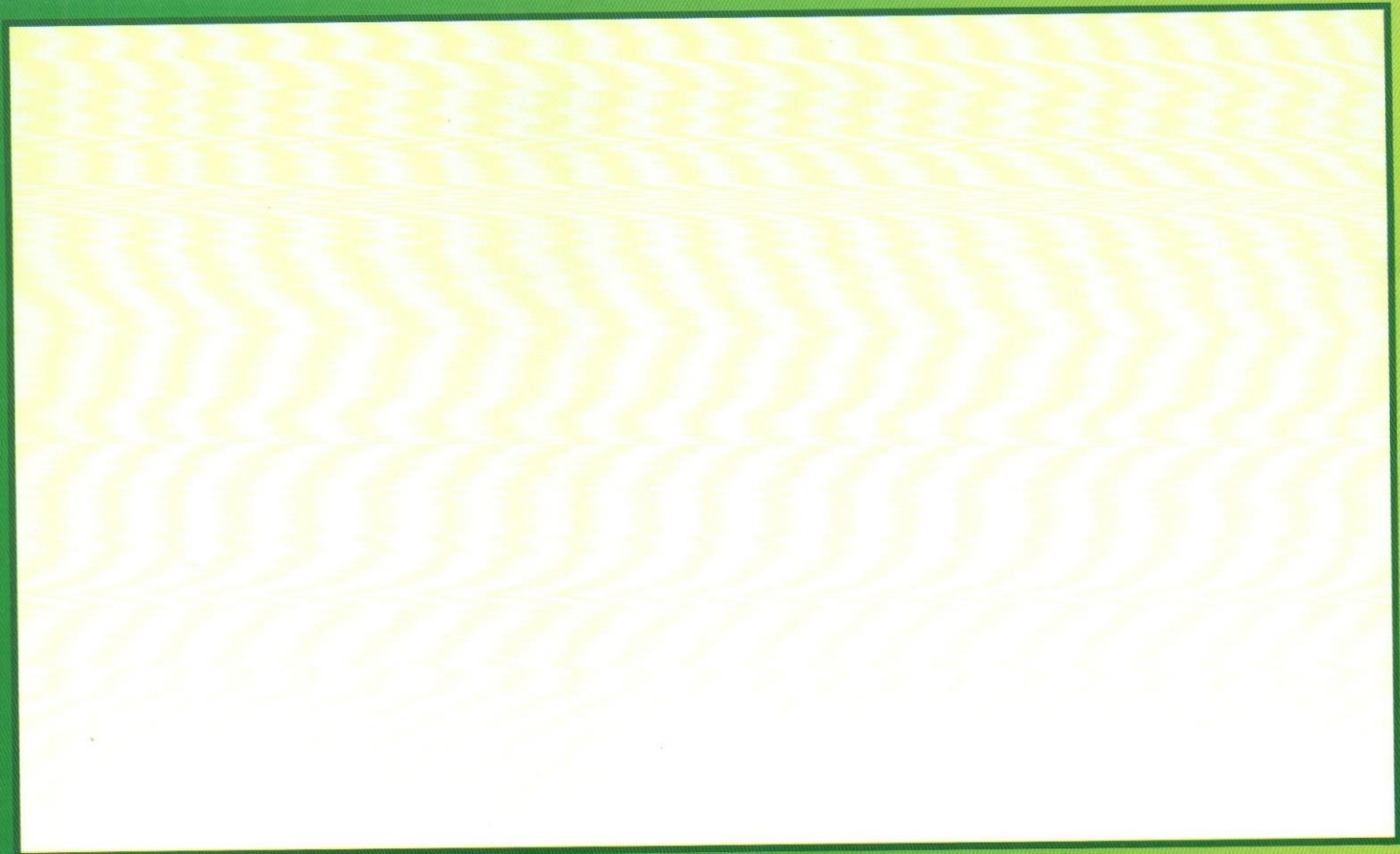
The formula is very simple: Just divide 70 years by the rate of growth:  $70 / 3 = 23$  years

It may be called the **Law of Seventy**.

Note:

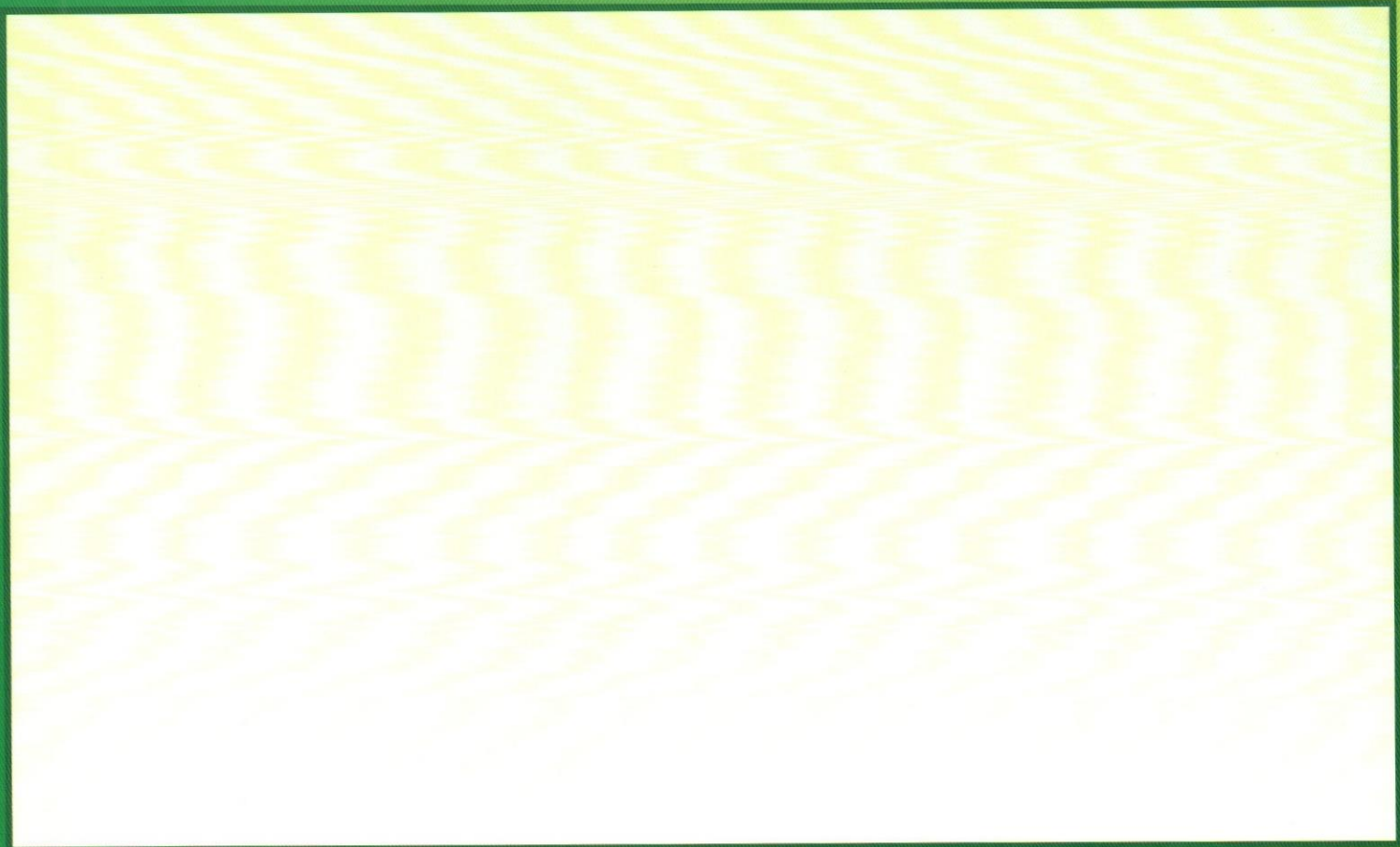
**B** = Births  
**Im** = Immigration

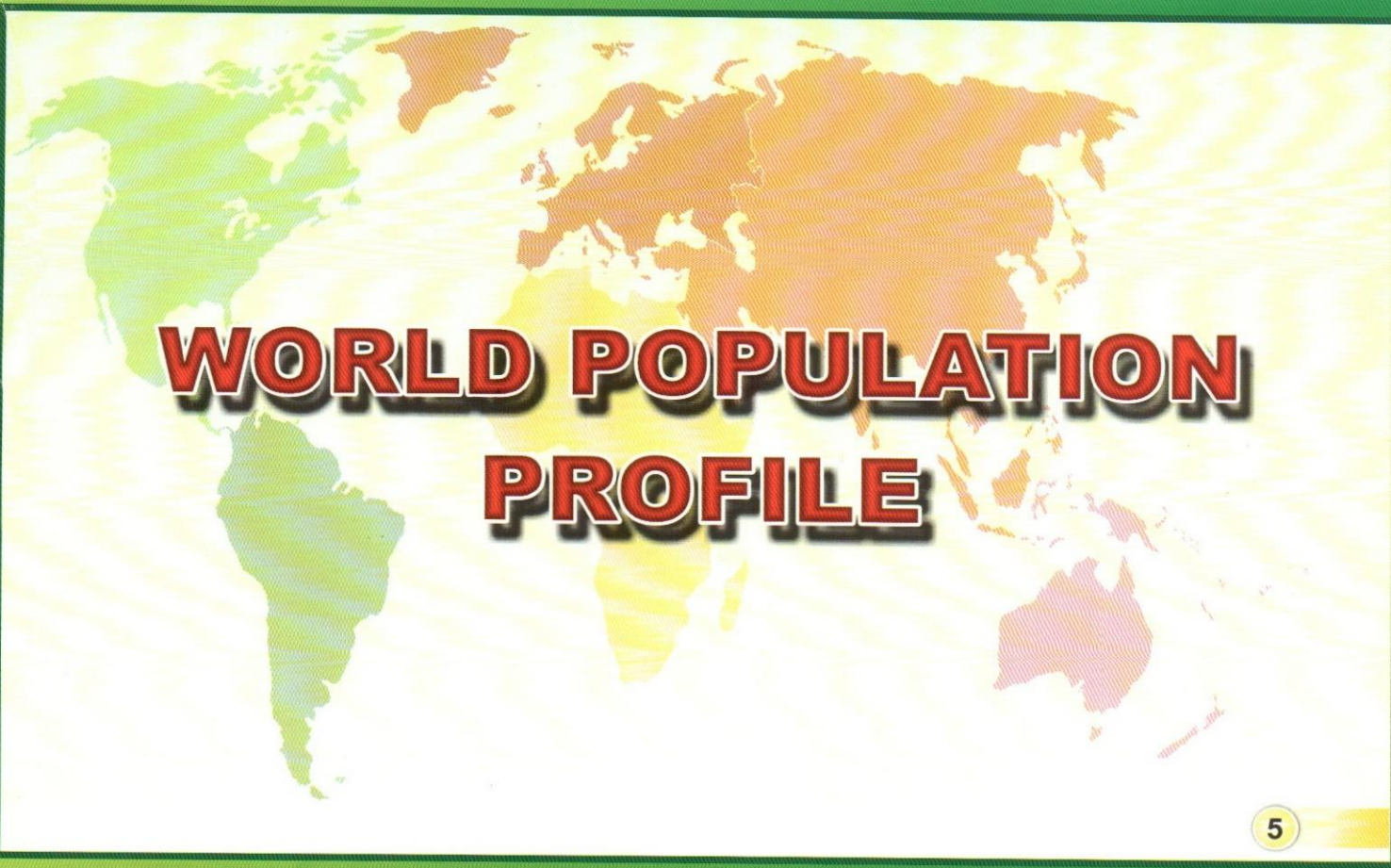
**D** = Deaths  
**Em** = Emigration



## CONTENTS

- World Population Profile
- Pakistan Population Profile
- Health and Family Planning Indicators
- Human Development Index
- Implications of Population Growth
- Pakistan Population Policy
- New Initiatives



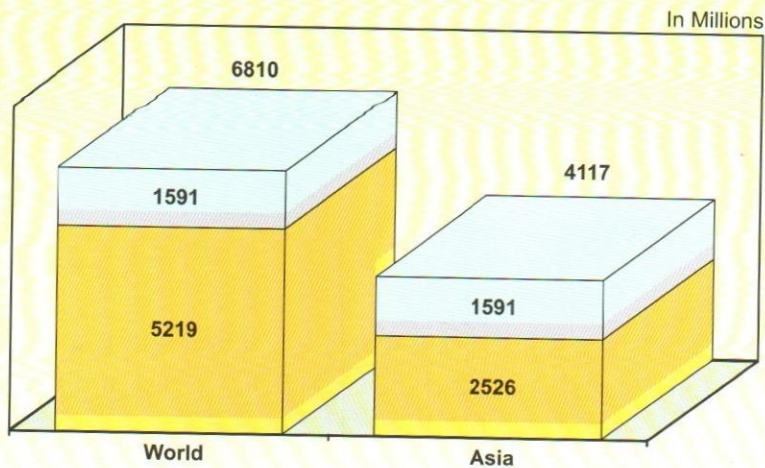
A world map is shown in the background, with continents colored in various shades: North America is green, South America is light green, Europe and Africa are yellow, Asia is orange, and Australia is pink. The map is set against a light yellow background with a subtle grid pattern.

# **WORLD POPULATION PROFILE**





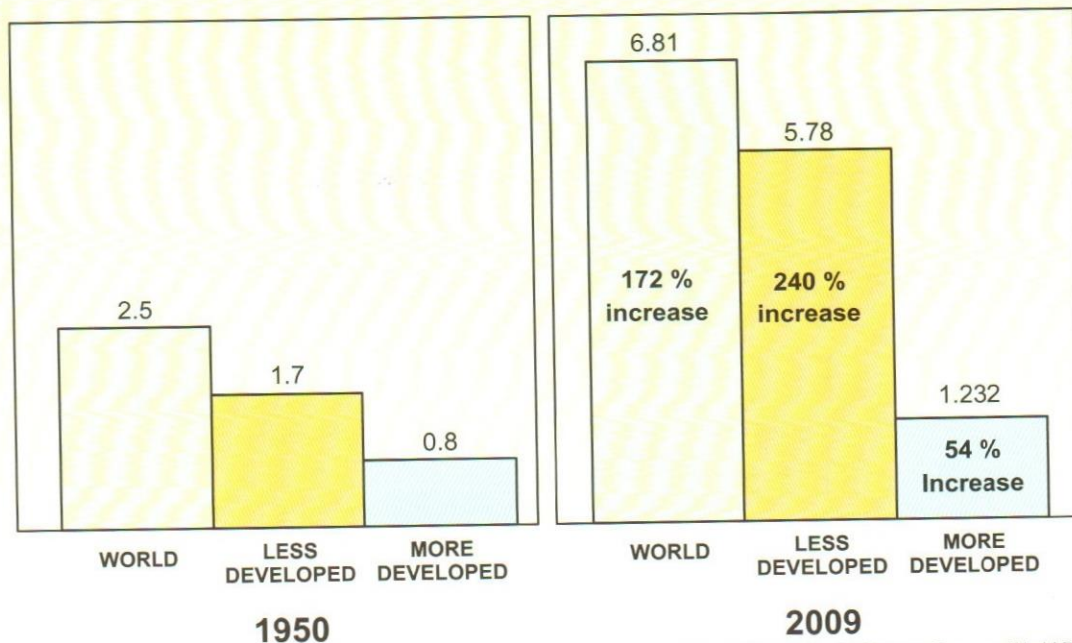
# WORLD POPULATION, 2009



Region	% of World Population	% of Asia Population
Asia	60.4%	--
SAARC	23.4%	38.6%

# POPULATION TRENDS 1950 - 2009

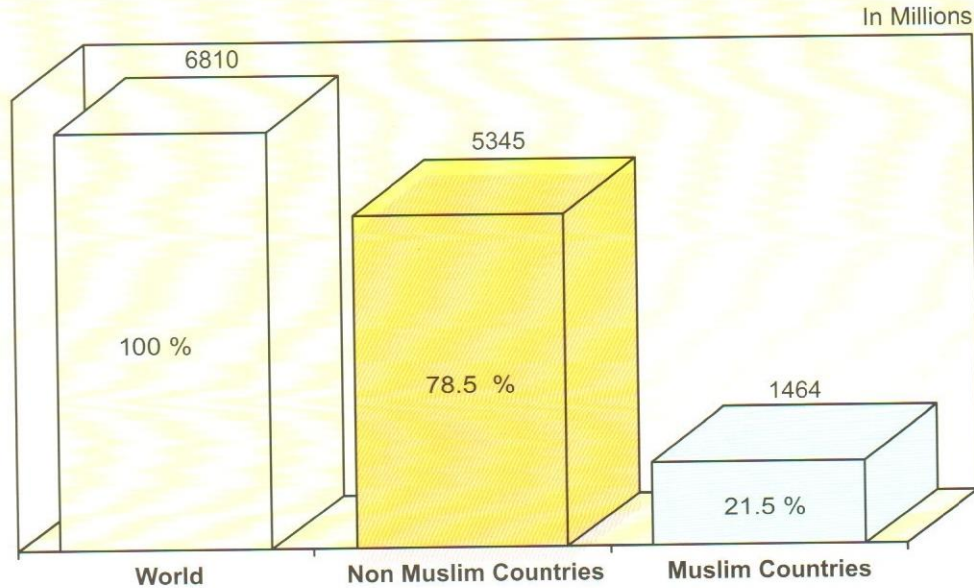
(In Billions)



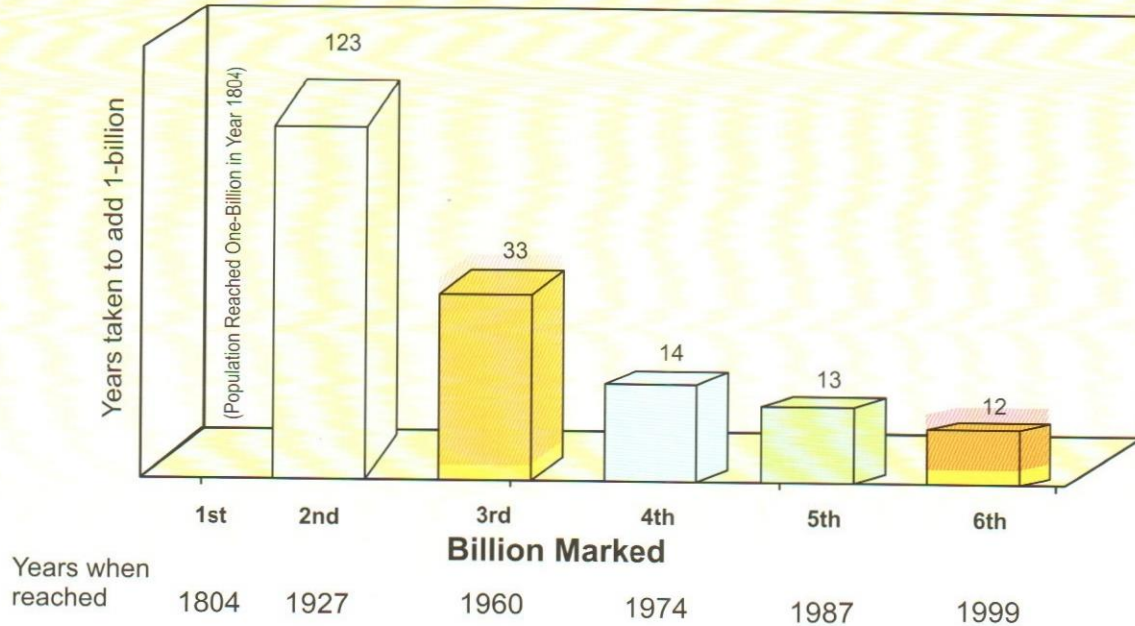
## MOST POPULOUS CITIES OF THE WORLD

Country	Population (millions)	Rank
Tokyo (Japan)	36.67	1
Delhi (India)	22.16	2
Sao Paulo (Brazil)	20.26	3
Mumbai (India)	20.04	4
Mexico City (Mexico)	19.46	5
New York (USA)	19.43	6
Shanghai (China)	16.58	7
Calcutta (India)	15.55	8
Dhaka (Bangladesh)	14.65	9
Karachi (Pakistan)	13.12	10

# POPULATION IN MUSLIM AND NON-MUSLIM COUNTRIES, 2009



## TIME TAKEN TO ADD ONE BILLION



## WORLD POPULATION CLOCK, 2009

	<b>Births</b>	<b>Deaths</b>	<b>Addition</b>
In one year	138949000	56083000	82666000
One month	11879083	4673583	6905500
One day	380683	153653	227030
One Hour	15862	6402	9460
One minute	264	107	157

## POPULATION AND GNI/CAPITA

Regions	Population, 2009 (Million)	GNI - PPP/ Capita, 2009 ( US \$ )
World	6,810	10,090
More developed	1,232	32,320
Less developed	5,578	5,170
Asia	4,117	6,020
SAARC	1,591	2,857





# PAKISTAN POPULATION PROFILE

## PAKISTAN Share of World 2010

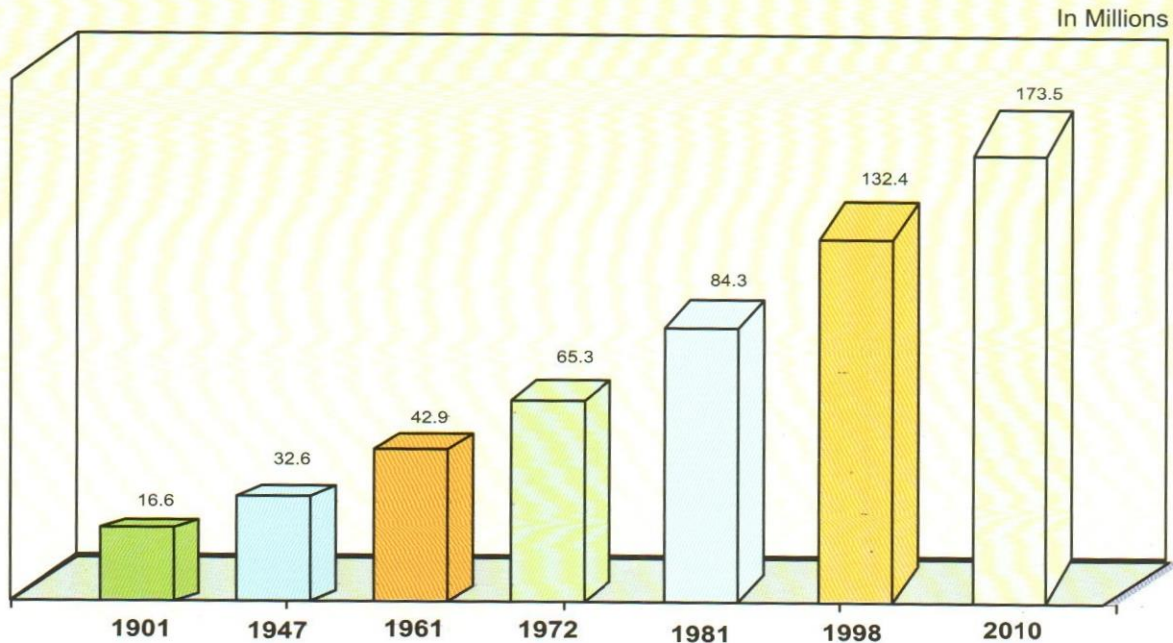
Area	0.796 (Million Sq. Km)	0.60 %
Population	173.51 (Million)	2.55 %

## PAKISTAN'S POPULATION RANK ORDER IN THE WORLD

Year	Rank	Population (Million)
1950	14	33.0
2010	6*	173.5

\* After China, India, Indonesia and Brazil having surpassed Japan, Bangladesh, Nigeria, Russia etc.

# POPULATION SIZE OF PAKISTAN



Source: Population Census Organization - 1998 Census  
Planning & Development Division, June 2010

## MOST POPULOUS CITIES, 2010

In Millions

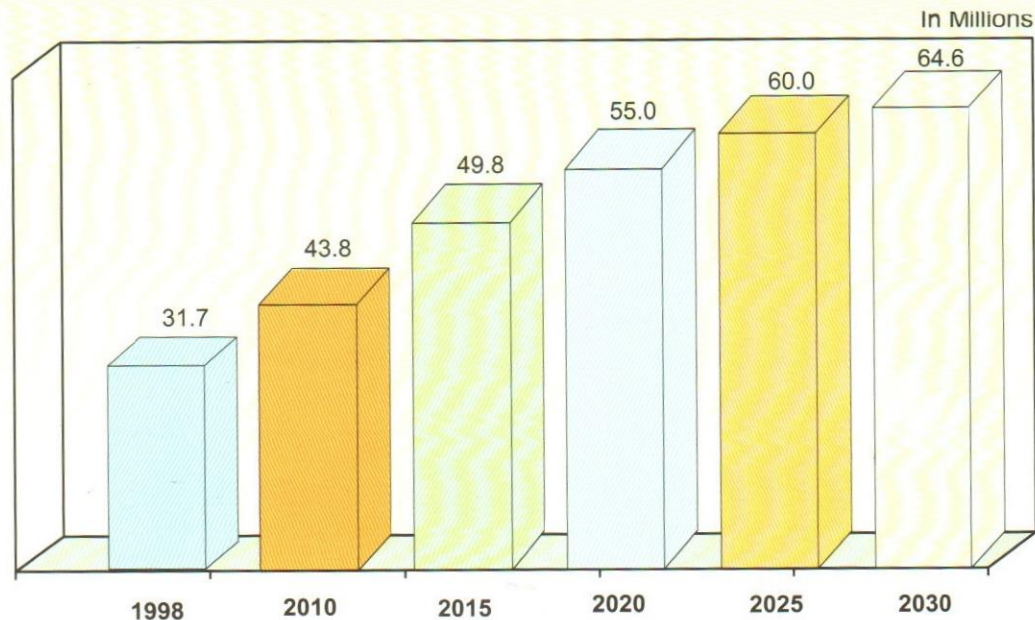
Cities	1981	1998	2010
Karachi	5.21	9.34	13.38
Lahore	2.95	5.14	7.21
Rawalpindi	0.79	1.41	2.01
Faisalabad	1.10	2.01	2.91
Gujranwala	0.60	1.13	1.67

## POPULATION PROJECTIONS BY PROVINCE (1998 - 2030)

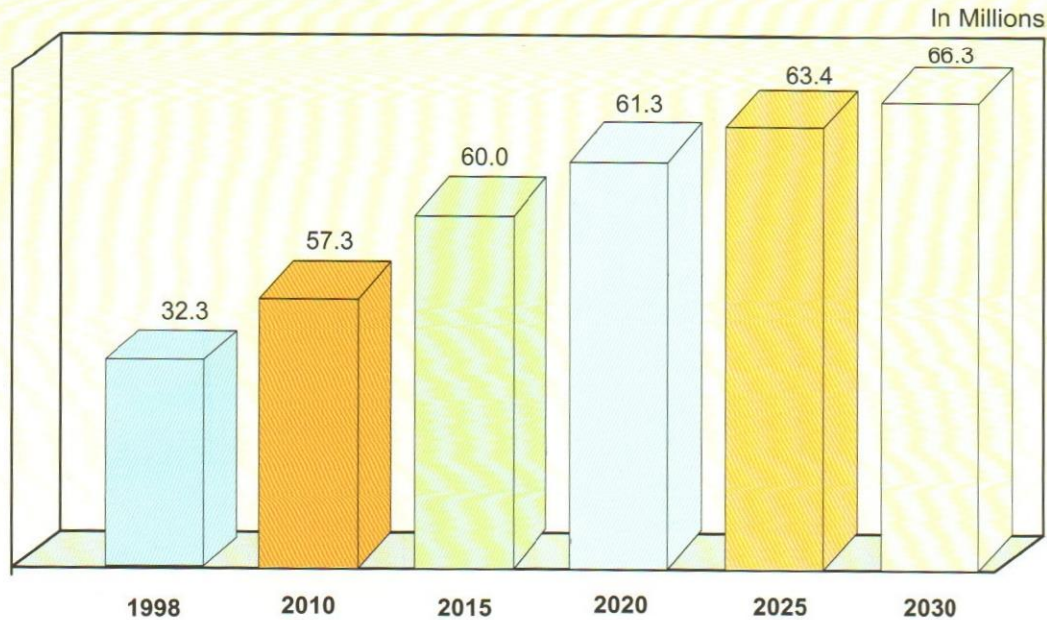
Region	1998	2007	2010	2015	2020	2030
Pakistan	132.4	162.9	173.5	191.7	210.1	242.1
Punjab	73.6	89.4	94.7	103.8	112.9	128.3
Sindh	30.4	38.5	41.3	46.0	50.8	59.1
KPK*	17.9	21.8	23.3	25.8	28.5	33.0
Balochistan	6.6	8.2	8.8	9.9	11.1	13.3
FATA	3.2	3.8	4.1	4.6	5.2	6.3
Islamabad	0.8	1.2	1.3	1.5	1.7	2.0

\* Khyber Pakhtunkhwa

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



## PROJECTED POPULATION, OF YOUTH (10-24 YEARS)





## POPULATION BY SELECTED AGE GROUPS

In Millions

Age groups	1998	2010	2015	2020	2025	2030
00 – 04	14.80	21.81	22.76	23.28	22.44	20.35
05 – 09	15.65	20.17	21.33	22.35	22.95	22.18
10 – 14	12.95	20.19	20.07	21.24	22.28	22.88
15 – 19	10.37	19.88	20.12	20.01	21.19	22.24
20 – 24	8.97	17.22	19.80	20.05	19.95	21.14
25 – 29	7.37	14.81	17.13	19.71	19.98	19.89
30 – 34	6.22	12.50	14.72	17.04	19.62	19.91
35 – 39	4.77	10.49	12.40	14.62	16.94	19.53
40 – 44	4.44	8.64	10.36	12.27	14.49	16.81
45 – 49	3.53	7.09	8.49	10.20	12.01	14.31
50 – 54	3.21	5.81	6.88	8.26	9.95	11.84
55 – 59	2.15	4.68	5.53	6.57	7.93	9.60
60 – 64	2.04	3.64	4.31	5.13	6.14	7.45
65+	3.50	6.60	7.82	9.39	11.39	13.93
Total	132.35	173.51	191.71	210.13	227.35	242.05

## POPULATION GROWTH RATE

Period	Growth Rate (%)
1951 - 61	2.45
1961 - 72	3.66
1972 - 81	3.05
1981 - 98	2.69
<b>2010</b>	<b>2.05</b>

## PAKISTAN POPULATION CLOCK, 2009

	<b>Births</b>	<b>Deaths</b>	<b>Addition</b>
In one year	4820000	1290000	3530000
One month	401667	107500	294167
One day	13205	3534	9671
One Hour	550	147	403
One minute	8	2	6

## PAKISTAN ADDING > 3.5 MILLION TO ITS POPULATION ANNUALLY, MEANS:

78 countries having total population less than 3.5 million

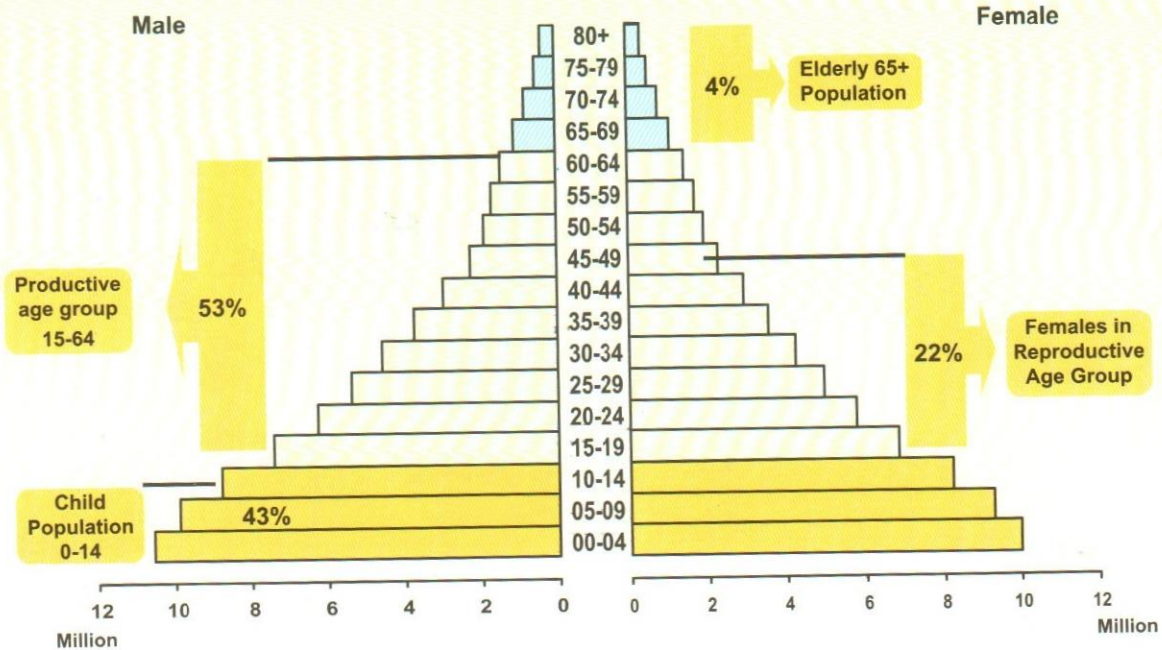
Adding Rawalpindi and Multan OR Gujranwala and Peshawar OR Hyderabad, Quetta and Islamabad in one year

Selected Countries	Population (In Million)
Mauritania	3.3
Panama	3.5
Kuwait	3.0
Oman	3.1
Albania	3.2
Uruguay	3.4
Armenia	3.1
Mauritania	3.3

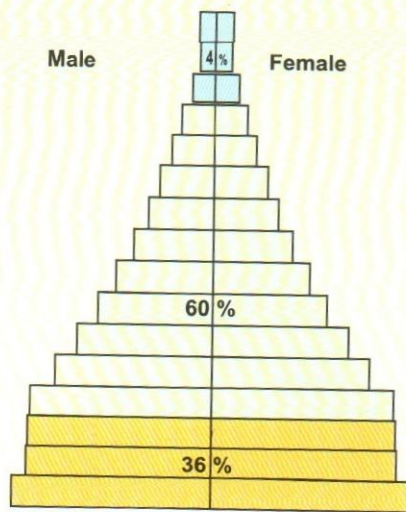
Major Cities of Pakistan	Population (In Million)
Faisalabad	2.9
Rawalpindi	2.0
Multan	1.6
Hyderabad	1.5
Gujranwala	1.7
Peshawar	1.4
Quetta	0.9
Islamabad	1.0

# POPULATION PYRAMID

## 1998 Census

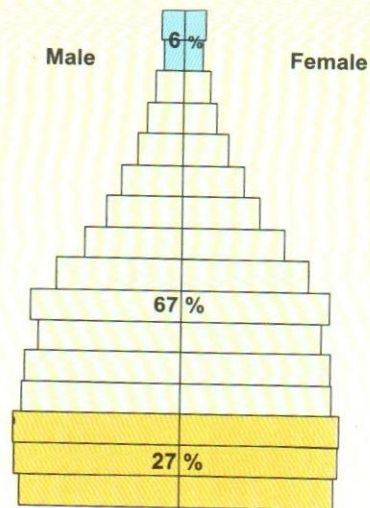


# POPULATION PYRAMID, 2010 & 2030



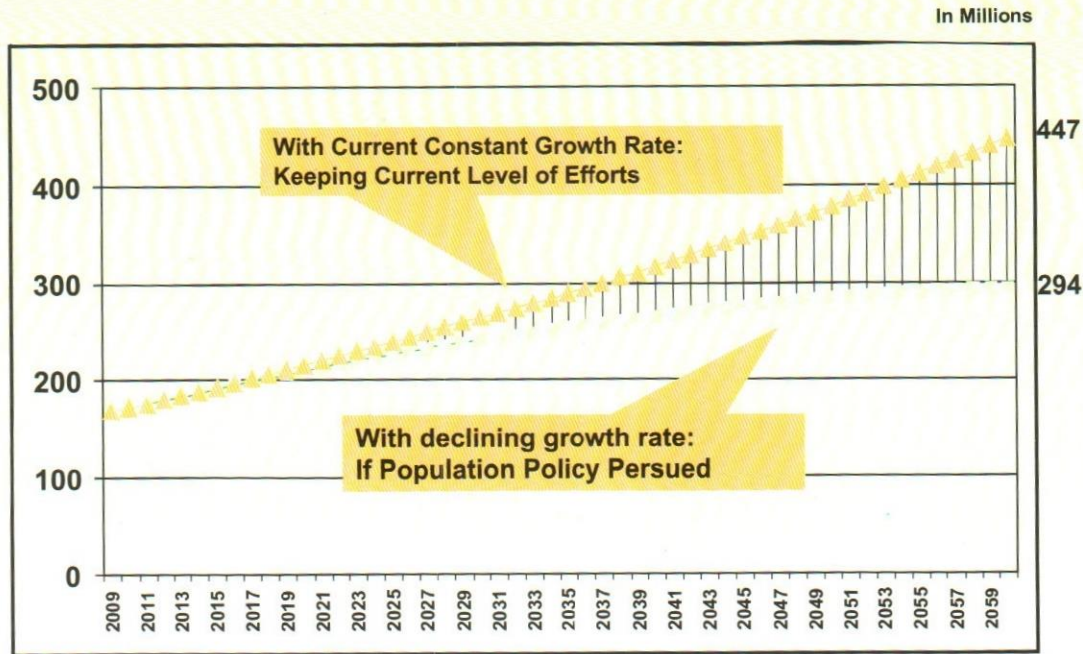
2010

75+  
70-74  
65-69  
60-64  
55-59  
50-54  
45-49  
40-44  
35-39  
30-34  
25-29  
20-24  
15-19  
10-14  
05-09  
00-04



2030

# POPULATION GROWTH BY CONSTANT AND DECLINING GROWTH RATE ASSUMPTIONS, 2009 - 2060



# **HEALTH AND FAMILY PLANNING INDICATORS**

**PAKISTAN AND SELECTED COUNTRIES**



## SELECTED HEALTH INDICATORS, 2009

Countries	Births attended by skilled health personnel (%)	Infants with low birth weight (%)	Maternal Mortality Ratio
Afghanistan	14	46	1600
Pakistan	39	31	276
Bangladesh	18	22	570
India	43	46	250
Srilanka	94	23	44
Maldives	—	26	140

## SELECTED HEALTH INDICATORS 2009

Countries	Births attended by skilled health personnel (%)	Infants with low birth weight (%)	Maternal Mortality Ratio
Bhutan	15	14	260
Nepal	11	39	280
Nigeria	39	27	1100
Sudan	49	38	450
Indonesia	79	20	420
Iran	97	9	140

## INFANT MORTALITY AND LIFE EXPECTANCY

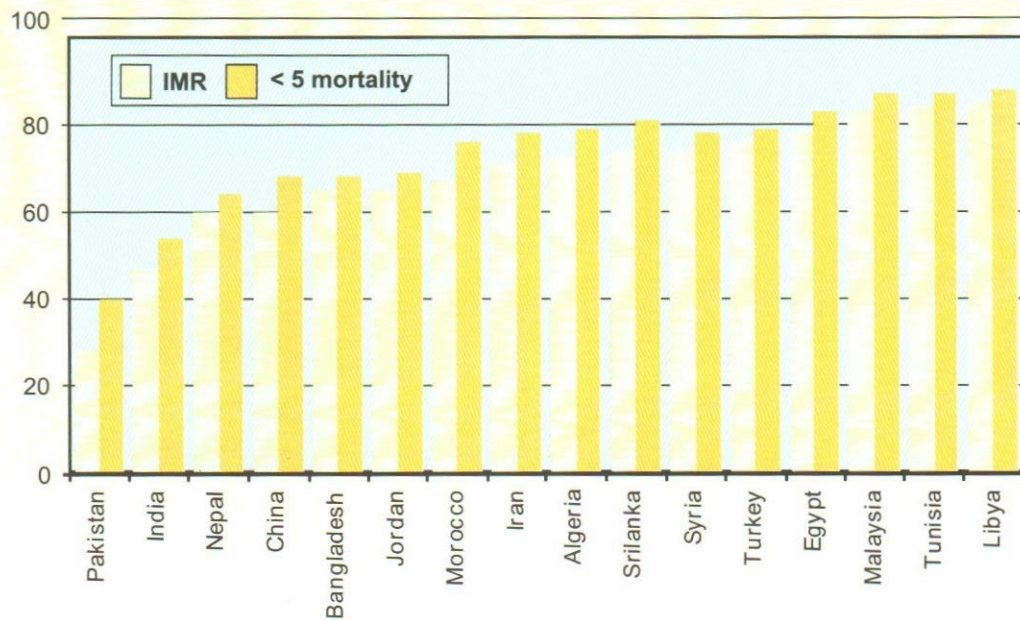
Countries	IMR	Life Expectancy (Male) Years	Life Expectancy (Female) Years
Afghanistan	155	44	44
Pakistan	72	63.6	65.4
Bangladesh	48	64	66
India	55	63	65
Srilanka	15	67	75
Maldives	10	72	74

*Contd.*

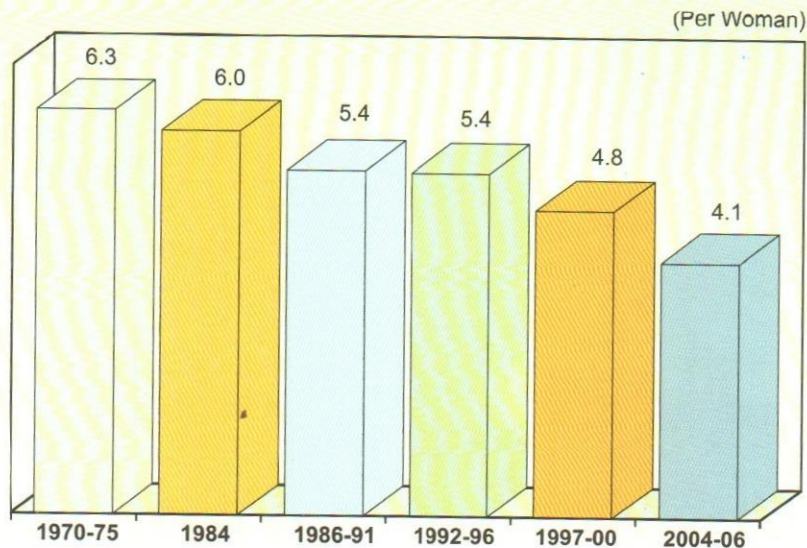
## INFANT MORTALITY AND LIFE EXPECTANCY

Countries	IMR	Life Expectancy (Male) Years	Life Expectancy (Female) Years
Bhutan	40	67	68
Nepal	48	63	64
Nigeria	75	47	48
Sudan	81	57	60
Indonesia	34	69	73
Iran	35	69	73

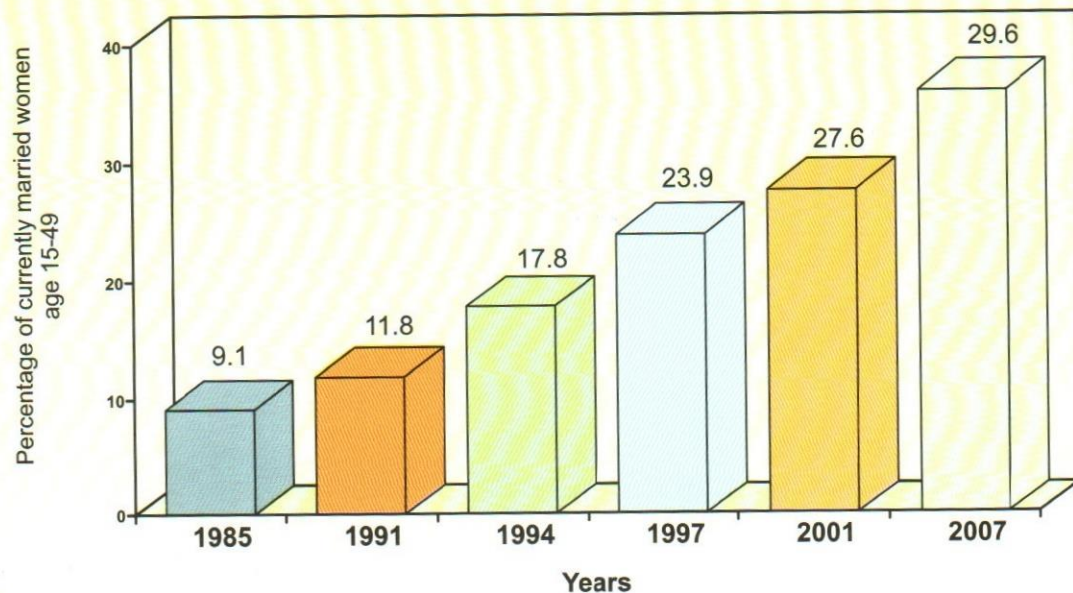
## PERCENT DECLINE IN MORTALITY RATES IN SELECTED COUNTRIES 1970-75 To 2000-05



## TREND IN TOTAL FERTILITY RATE PAKISTAN, 1970-2007



## TRENDS IN CONTRACEPTIVE PREVALENCE RATE (%), PAKISTAN, 1985-2007



## TOTAL FERTILITY AND CONTRACEPTIVE PREVALENCE RATES, 2009

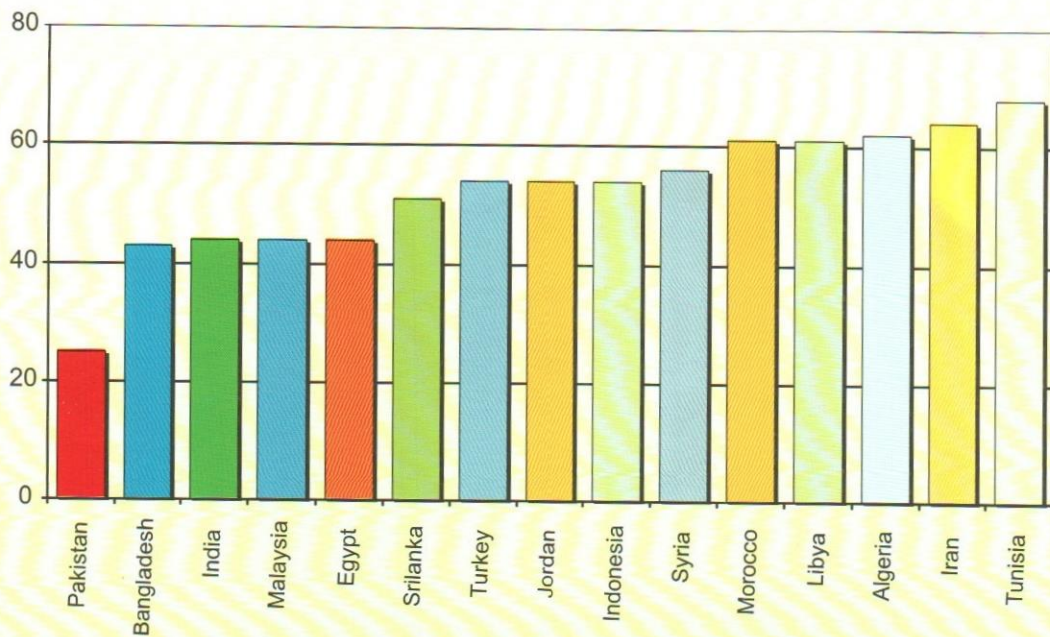
Countries	Total Fertility Rate	Contraceptive Prevalence Rate
Afghanistan	5.7	10
Pakistan	3.6	30
Bangladesh	2.5	56
India	2.7	56
Srilanka	2.4	70
Maldives	2.3	40



## TOTAL FERTILITY AND CONTRACEPTIVE PREVALENCE RATES, 2009

Countries	Total Fertility Rate	Contraceptive Prevalence Rate
Bhutan	3.1	31
Nepal	3.1	48
Nigeria	5.7	13
Sudan	4.5	8
Indonesia	2.5	60
Iran	2.0	74

## PERCENT DECLINE IN TFR IN SELECTED COUNTRIES 1970-75 To 2000-05



# HUMAN DEVELOPMENT INDEX

## HUMAN DEVELOPMENT INDEX, 2009

Human Development Index (HDI)	Number of Countries
Very High (0.9 – 1.0)	38
High (0.8 - < 0.9)	45
Medium (0.5 -< 0.8)	75
Low (< 0.5)	24
Total	182

(Figures in parenthesis are ranges of HDI)

## POPULATION OF MUSLIM COUNTRIES LIVING BELOW INTERNATIONAL POVERTY LINE, 2009

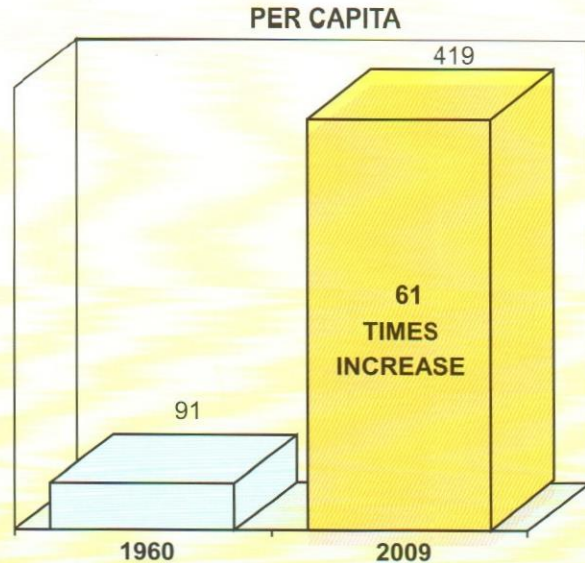
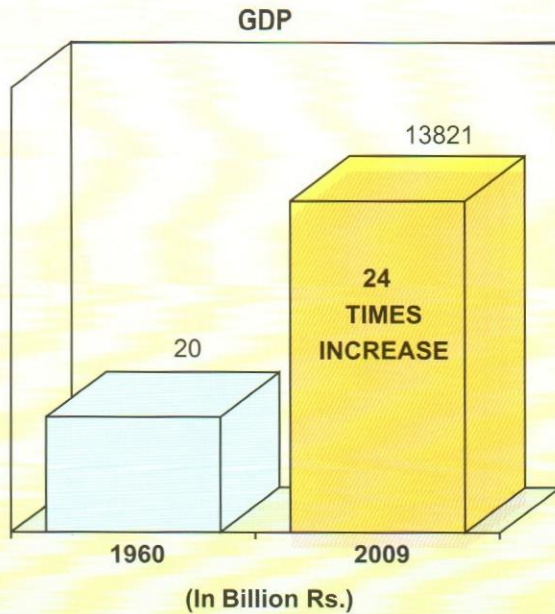
Muslim Countries	Total Population (million)	Rank Order Human Development Index	Percent of Population living below \$2 a day
Afghanistan	28.4	181/182	–
Algeria	35.4	104/182	24
Bangladesh	162.2	146/182	81
Egypt	78.6	123/182	18
Ethiopia	82.8	171/182	78
Indonesia	243.3	111/182	54
Iran	73.2	88/182	8

## POPULATION OF MUSLIM COUNTRIES LIVING BELOW INTERNATIONAL POVERTY LINE, 2009

Muslim Countries	Total Population (million)	Rank Order Human Development Index	Percent of Population living below \$2 a day
Malaysia	28.7	66/182	8
Morocco	31.5	130/182	14
Nigeria	152.6	158/182	84
Pakistan	173.5	141/182	60
Sudan	42.3	150/182	-
Turkey	74.8	79/182	9
Uzbekistan	27.6	119/182	77

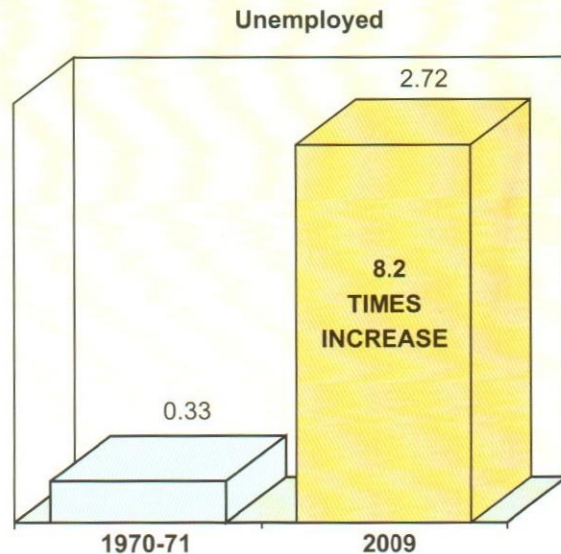
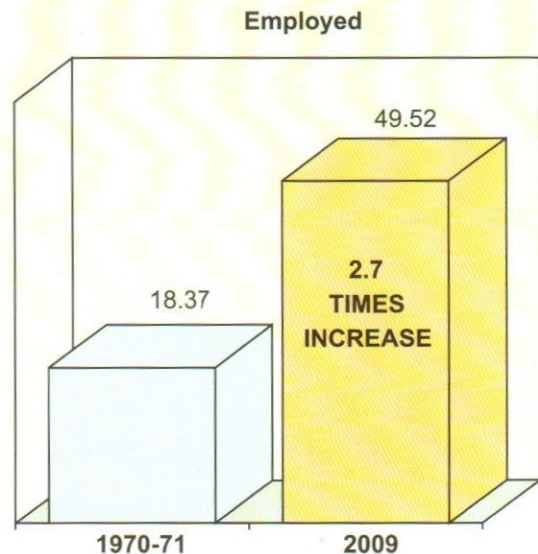
# IMPLICATIONS OF POPULATION GROWTH

# GDP AND PER CAPITA INCOME OF PAKISTAN 1960 - 2009

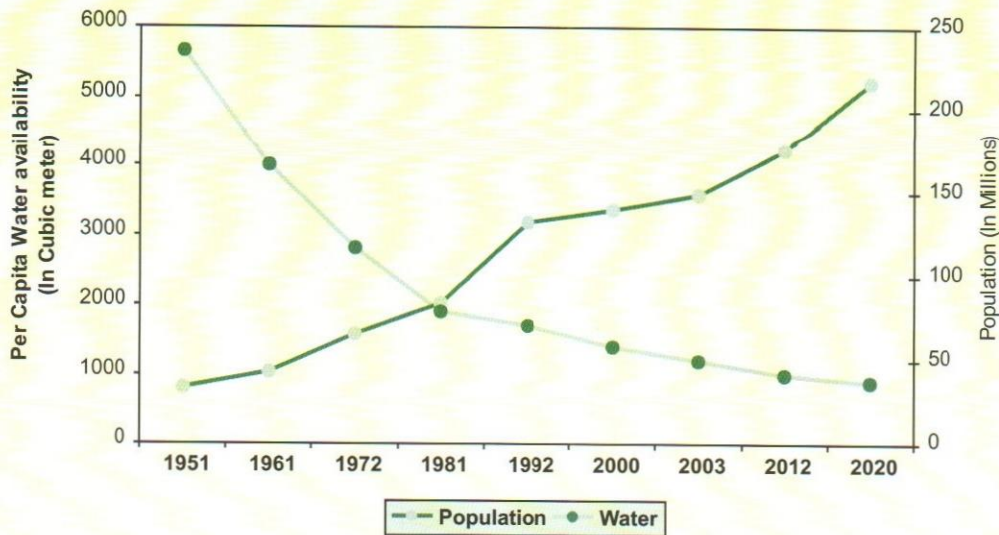




# EMPLOYMENT AND UNEMPLOYMENT (Persons in Million)



# WATER AVAILABILITY VS POPULATION GROWTH



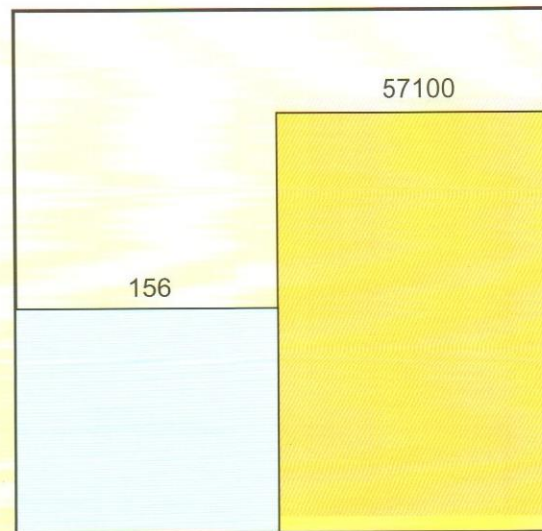
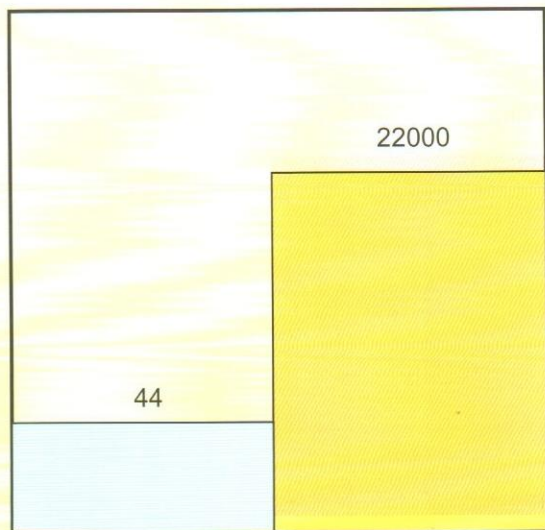
Parameters/Years	1951	1961	1972	1981	1992	2000	2003	2012	2020
Water availability	5650	4000	2800	1900	1700	1400	1200	1000	885
Population	33.7	42.8	65.3	84.2	132.0	140.0	149.0	180.7	210.1

# PRIMARY SCHOOLS AND ILLITERATE POPULATION 1961 - 2009

(In Thousand)

1961

2009



## POPULATION LITERACY RATES AND NUMBER OF ILLITERATES BY PROVINCE, 2009

Region	Population age 10 + (Millions)		Literacy rate (%)		Number of Illiterate (Millions)		
	Male	Female	Male	Female	Male	Female	Total
Punjab*	37.2	35.4	69	50	11.7	17.9	29.6
Sindh	16.3	14.7	71	45	4.7	8.1	12.8
KPK**	8.8	8.6	61	31	4.1	6.9	11.0
Balochistan	3.5	3.1	62	23	1.3	2.4	3.7
<b>Total</b>	<b>67.9</b>	<b>63.6</b>	<b>69</b>	<b>45</b>	<b>21.8</b>	<b>35.3</b>	<b>57.1</b>

KPK=Khyber Pakhtunkhwa

\* Included ICT; \*\* included FATA

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

## OTHER HARD FACTS

In Millions

Population living below poverty line	44.0
Population with no access to safe drinking water	64.2
Population with one room houses	65.4
Population with no sanitation	88.2

## 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 2010

(Draft)

## VISION

- To promote a prosperous, healthy and skilled society where every pregnancy is planned, every child is nurtured and cared for; and every citizen is provided with choices to improve the quality of his and her life.



## STRATEGIES

- Main streaming Population in Development Planning
- Advocacy and Demand Generation
- Enhancing Access to Improving Quality of Family Planing and Reproductive Health Services
- Contraceptive Community Security
- Training and Human Resource Development
- Research and Evaluation
- Public-Private Partnership
- Monitoring

## SERVICE DELIVERY COMPONENTS

<b>PROGRAMME:</b>	
Family Welfare Centres (FWC)	2,853
Reproductive Health Services 'A' Centres	260
Mobile Service Units	292
RHS-B Centres	103
Safe Mother Homes	02
Multi-purpose Service centers	07
<b>RESEARCH AND TRAININGS:</b>	
National Institute of Population Studies, Islamabad	1
National Research Institute of Fertility Care, Karachi	1
Population Welfare Training Institutes	2
Regional Training Institutes	15

# NEW INITIATIVES

## POPULATION SECTOR INITIATIVES

- Establishment of Family Health Homes through community partnership
- Social Mobilization through IMMAMS and KHATEEBS
- Franchising with corporate and private sector (Public-Private Partnership)
- Establishment of Seven Multipurpose Service Centers
- Establishment of two Safe-Mother Homes
- Establishment of Two Regional Training Institutes





## **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, human resource development and 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 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.