OVERVIEW OF POPULATION ISSUES

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1 Definition of Population.

Population is the number of people locating and living in a specific place (area, nation, and continent). Population should be viewed in terms of : Size, Constructure, Distribution according to location, fertility, mortality and migration.

2. Population related terms.

2.1. Size of population

Size of population in a specific location (area, nation, anf continent) is a total number of people living there in a certain time.

2.2 **Population development**

To evaluate the development of population through years, sectoral experts use the ratio of development.

The ratio of population development is measured by the number of percent of :

$$r = \frac{P(December) - P(January)}{P(January)} \times 100$$

Population size and development compared among Vietnam, Bangladesh, and France.

Chart1: Population development in Vietnam (1950-2050)

Year	Poulation size		
	Bang	Viet	France
1950	43 595	27 367	41 832
1960	54 138	33 648	45 674
1970	69 178	42 898	50 771
1980	90 397	53 317	53 950
1990	115 632	66 247	56 842
2000	140 767	78 663	59 128
2010	164 425	89 029	62 637
2020	185 552	98 011	64 931
2030	203 214	105 447	66 474
2040	215 339	109 986	67 473
2050	222 495	111 666	67 668

The description of population development as following:
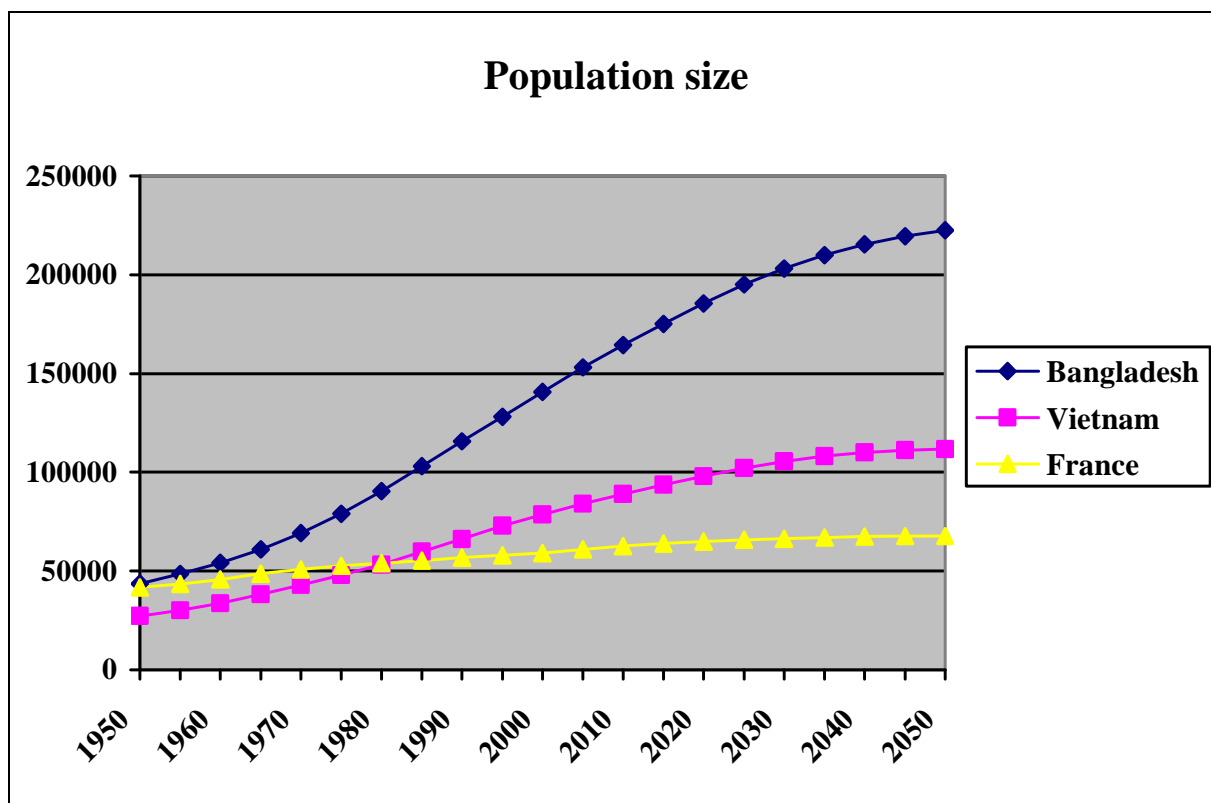
Population size

Chart 2: Data of some countries with high number of population and average density than Vietnam, 2007.

No	Country	Population	Density (people/km^2)	GDP
1	Bangladesh	149,0	1036	1.242
2	Japan	127,7	338	33.525
3	Indian	1131,9	345	2.753
4	Philipins	88,7	296	3.410
5	Vietnam	85,1549	257	2.600

Source: www.prb.org; www.gso.gov.vn and worldbank.org

1.2.2. Distribution

Distribution in terms gender:

- Viewed according to gender: male and female.

Gender construction is described as following:

$$\text{Ratio of male (female)} = \frac{\text{Number of male (female)}}{\text{Population}} \times 100$$

$$\text{Ratio of gender} = \frac{\text{Number of man}}{\text{Number of female}} \times 100$$

Distribution of population according to gender plays an important role of society, economy, population and birth health.

Distrubuted by gender and age group. For example:.

BANGLADESH, 2010			
Age	Both sexes combined	Male	Female
0-4	16 282	8 283	7 999
5-9	17 235	8 769	8 466
10-14	17 242	8 777	8 466
15-19	16 733	8 526	8 207
20-24	16 342	8 314	8 028
25-29	15 667	7 931	7 736

30-34	13 933	7 019	6 914
35-39	11 681	5 865	5 816
40-44	9 614	4 841	4 773
45-49	7 918	4 005	3 913
50-54	6 439	3 262	3 177
55-59	5 179	2 617	2 562
60-64	3 645	1 796	1 849
65-69	2 720	1 288	1 432
70-74	1 888	936	952
75-79	1 126	538	587
80-84	554	265	289
85-89	185	84	101
90-94	36	15	21
95-99	4	2	3
100+	0	0	0
TOTAL	164 425		

In chart 3, population pyramid for Bangladesh:

Population pyramid for Bangladesh, 2010
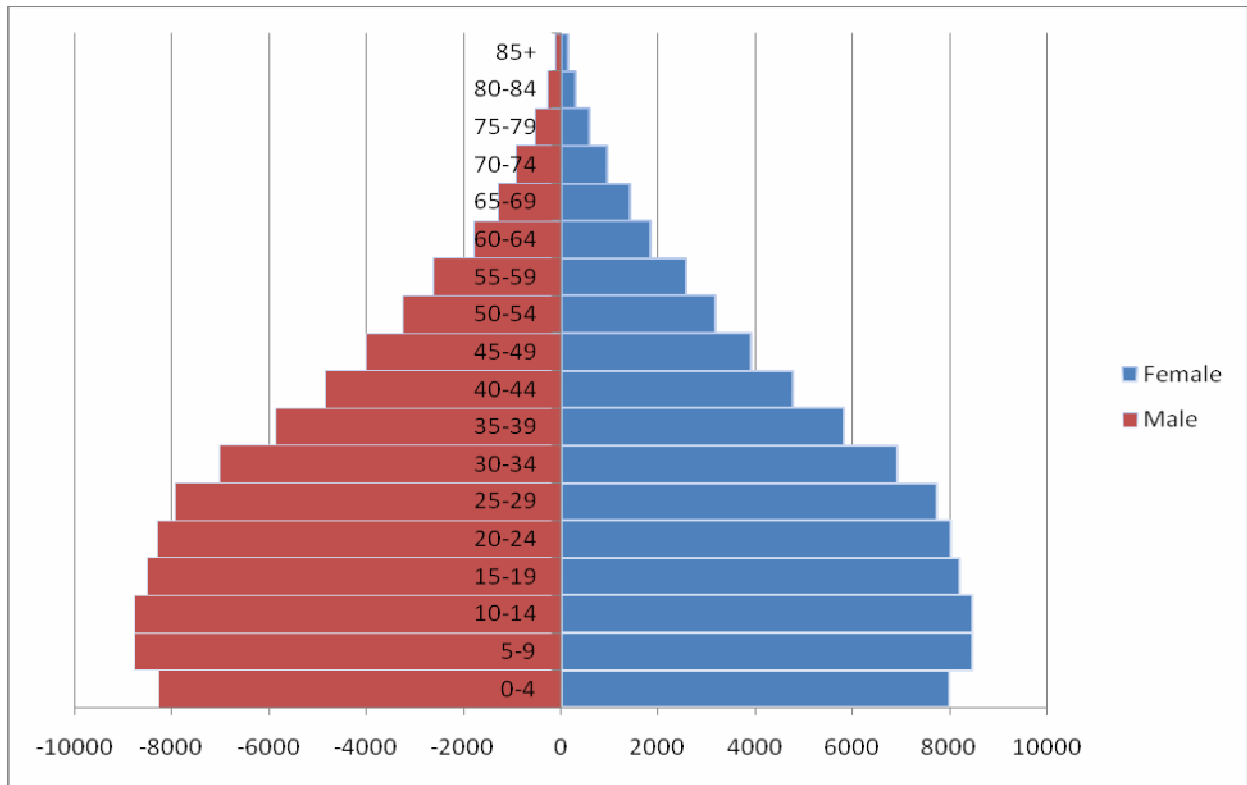
- Ratio of dependants:

Children + Old people

Ratio of dependants =--------------------------------- x 100

People with labour capacities

This ratio in Vietnam:

Year	Dependency Ratios		
	Bangladesh	Vietnam	France
1950	73	56	52
1955	79	65	56
1960	84	78	61
1965	89	93	61
1970	91	96	60
1975	92	92	60
1980	93	90	57
1985	91	83	52
1990	85	79	52
1995	76	73	54
2000	67	64	54
2005	60	55	54
2010	53	46	55
2015	48	42	59
2020	45	42	62
2025	44	44	65
2030	43	47	69
2035	43	51	72
2040	44	54	75
2045	46	56	75
2050	50	58	76

Dependency Ratios
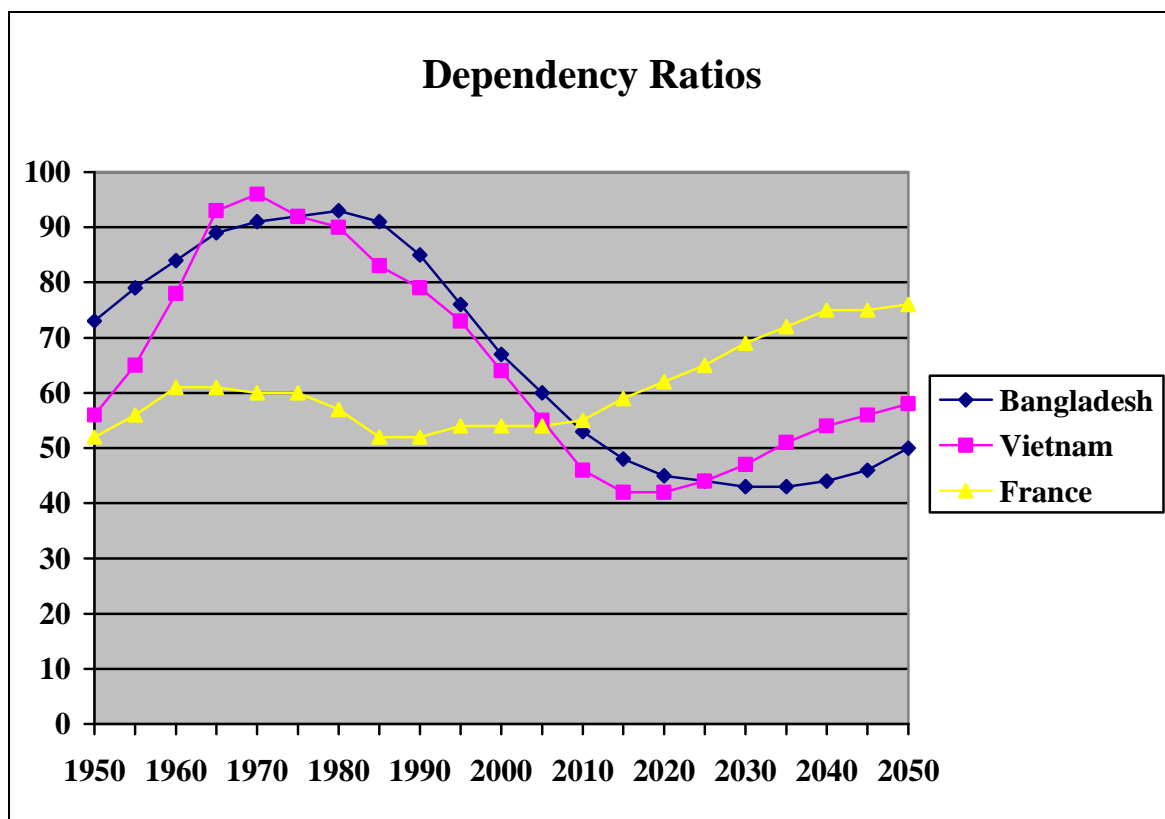
1.2.3. Distribution of population:

Distribution of population in terms of area, locations

Population and land are important factors of impacting on Social economic development. Ensuring the balance of population distribution enhances social development.

Table 4: Distribution of population in Viet Nam (%)

No	Location	Area	Population		
			1979	**1989**	**1999**
1	Mountainous area of the North	30,6	15,3	5,9	17,2
	North West	19,8		11,5	

	North East	10,8	3,0		
2	Mountainous area of the Middle	16,5	2,9	3,9	4,0
3	Middle of the North	15,6	13,8	3,5	13,1
4	In the middle of Vietnam	10,0	11,0	10,5	8,5
5	Cuu Long area	12,1	23,4	22,4	21,2
6	South West of Viet Nam	10,5	11,9	12,3	16,7
7	The Red river area	4,5	21,7	21,4	19,4
	Total	**100,0**	**100,0**	**100,0**	**100,0**

Source: Overall reseach 1979;1989;1999.and 2003

1.1.2.4 Birth rate:

Birth rate shows the capacity of birth rate

CBR

- CBR is measured :

Newly born children more than 1yr

CBR = -------------------------------- ------- x 1000

Average of population

Table 5: Comparision of CBR among Bangladesh, Vietnam

| Period | Crude birth rate | |
	BANGLADESH	VIETNAM
1950-1955	47.7	42.7
1955-1960	47.3	45.5
1960-1965	47.2	45.9
1965-1970	46.9	42.5
1970-1975	47.1	38.9
1975-1980	46.3	36.7
1980-1985	42.7	34.8
1985-1990	37.2	33.3
1990-1995	32.3	28.5
1995-2000	28.8	21.3
2000-2005	25.4	19.1
2005-2010	21.6	17.3
2010-2015	19.9	16.0
2015-2020	18.5	15.1
2020-2025	17.0	14.3
2025-2030	15.5	13.2
2030-2035	14.1	12.3
2035-2040	13.2	11.7
2040-2045	12.7	11.4
2045-2050	12.2	11.2

Source: Population research 1979;1989;1999.

+ Research of change on Population and Labour 1/4/2003

+ Tran Thi Trung Chien. Vietnam Population XXI, 2003

GFR

$$GFR = \frac{\text{Newly born children in 1 year}}{\text{Female (15-49)}} \times 1000$$

ASFR$_x$

$$ASFR_x = \frac{\text{Number of children born by mother x years old}}{\text{Number of mother x years old}} \times 1000$$

TFR

Period	Total fertility	
	Bang.	**Vietnam**
1950-1955	6.70	5.75
1955-1960	6.76	6.55
1960-1965	6.85	7.25
1965-1970	6.85	7.25
1970-1975	6.85	6.70
1975-1980	6.63	5.89
1980-1985	5.92	4.50
1985-1990	4.89	4.02
1990-1995	3.96	3.30
1995-2000	3.30	2.50
2000-2005	2.80	2.25

2005-2010	2.36	2.08
2010-2015	2.20	1.95
2015-2020	2.10	1.85
2020-2025	2.02	1.85
2025-2030	1.95	1.85
2030-2035	1.88	1.85
2035-2040	1.85	1.85
2040-2045	1.85	1.85
2045-2050	1.85	1.85

Impacting factors of the rate of birth: 4

- Natural factor: regards age and gender

- Social economic factor:

Including: job, salary, level of education, life style, custom of offering, marrige, inequality between male and female.

- Political factor:

Goal, strategy and law regarding to birth planning has huge impacts on increasing and decreasing the rate of birth.

- Technical factor:

- Direct factor (more power of impact)

- Indirect factor (less power of impact)

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┌──────────────┐        ┌──────────────┐        ┌──────────────┐
│   Indirect   │        │    Direct    │        │   Mức sinh   │
│   factors    │───────▶│   factors    │───────▶│              │
└──────────────┘        └──────────────┘        └──────────────┘
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1.1.2.5 Rate of death:

CDR

$$CDR = \frac{\text{Number of death per year}}{\text{Population average in that year}} \times 1000$$

CDR in Vietnam 9-10 , quite low but stable

Period	Crude death rate	
	BANGLADESH	VIETNAM
1950-1955	26.6	23.9
1955-1960	25.0	22.9
1960-1965	23.3	21.1
1965-1970	21.3	18.8
1970-1975	20.2	16.6
1975-1980	18.8	12.9
1980-1985	15.9	11.0
1985-1990	13.3	9.0
1990-1995	11.1	6.8
1995-2000	9.1	5.7
2000-2005	7.6	5.3
2005-2010	6.6	5.4
2010-2015	6.3	5.5
2015-2020	6.2	5.6
2020-2025	6.2	5.8
2025-2030	6.5	6.2

2030-2035	6.9	7.0	
2035-2040	7.4	7.9	
2040-2045	8.1	8.9	
2045-2050	8.9	9.9	

The ratio of increase: = *CBR - CDR*

The mortality ratio of child under 1 year old (IMR)

The mortality ratio of child under 1 year old

IMR= ---x1000

Newly born children

Ratio of below 1 year children (IMR)

Period	Both sexes combined (infant deaths per 1,000 live births)	Male (infant deaths per 1,000 live male births)	Female (infant deaths per 1,000 live female births)
1950-1955	200.5	199.6	201.4
1955-1960	187.0	186.9	187.1
1960-1965	174.1	174.7	173.6
1965-1970	159.4	162.3	156.4
1970-1975	152.0	157.7	146.0
1975-1980	142.5	148.1	136.7
1980-1985	123.7	129.0	118.2
1985-1990	107.3	111.5	102.9
1990-1995	90.8	94.3	87.1
1995-2000	72.6	75.4	69.8

2000-2005	57.2	59.4	54.9
2005-2010	44.7	46.4	42.8
2010-2015	37.3	39.4	35.0
2015-2020	30.6	33.1	28.0
2020-2025	25.3	28.0	22.5
2025-2030	21.0	23.8	18.0
2030-2035	17.6	20.3	14.7
2035-2040	15.3	17.2	13.3
2040-2045	13.4	14.8	12.0
2045-2050	11.8	12.6	11.0

Mortality rate:

Similar to the birth rate,mortality rate is influenced by 4 major group factors: natural factors, socio-economic factors, government policy and technological factors(directly Medicine and Healthcare).Specifically, the natural factors, for example, population pattern by age, mortality rate are affected by old population or natural disaters(flooding, hurricane,etc.)

History shows us that social reproduction of population are changing from high CBR and CDR(negative balance) to low CBR and CDR (positive balance), which leads to the change in population growth. Specifically, this change can be divided into 3 periods with the following characteristics:

+ **1st stage:** high CBR(over 40%) and CDR(over 30%), low natural growth rate, and low population growth. Population increases slowly after hundred even thousand years. Natural growth rate is below 1% per year. In the world population's history, the growth rate was 0.3% during the year 1650-1750, O.6 %

1850-1990 and approxmately 1.0% 1930-1940.

+ **2nd stage:** high CBR, low CDR, high natural growth rate. This period is called population explosion. At the beginning of this stage, CBR is high but it starts decreasing slowly. CDR fall sharply due to the innovation in medicine, the achievements in struggling against epedemics and the improvements in living standards. After that, CBR falls dramatically but CDR tends to level off at low rate. Thus, natural growth rate rises to high peak and then decreases gradually but still remains very high. That stage witnesses the rapid increase in population called "population explosion".

+**3rd stage:** after CBR falls and nearly reach the bottom, CDR still stays at low level. This change results in low natural and overall population growth, or even a decrease in population growth.

These three periods and overcome stage can be described in the chart number 3.
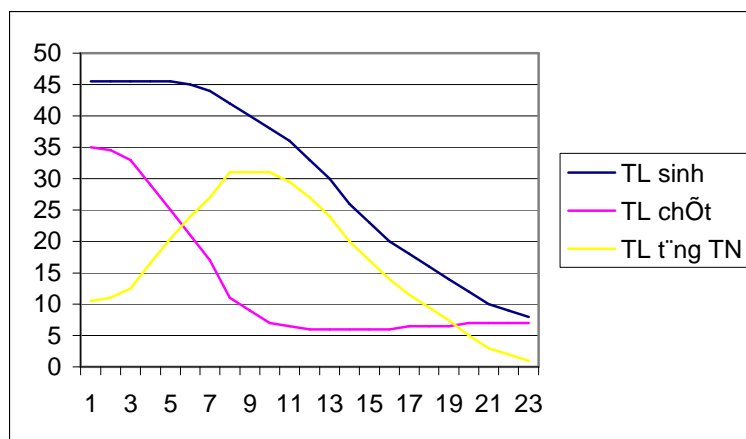
1. *Ratio of birth*   *2. Ratio of death*   *3. Ratio of death*

VIETNAM EXPERIENCES IN FAMILY PLANNING

1. Policy and strategy

2. Communication

3. Family planning service

4. Administration of family planning

5. Training and research

6. Budget plan

7. Concentrating on mountainous area

8. Integration population activities into social economic development

9. Socialization

10. International cooperation