## CHAPTER I: SIZE AND GEOGRAPHICAL DISTRIBUTION OF THE POPULATION

#### 1. Trends in the Population of Japan

# The population of Japan is 127.77 million. It increased by 0.7% over the five-year period, the lowest since the end of World War II.

The 2005 Population Census shows that the total population of Japan as of October 1, 2005 is 127.77 million, which is an increase of 0.84 million or 0.7% compared with the population reported in the previous Population Census conducted in 2000 (126.93 million).

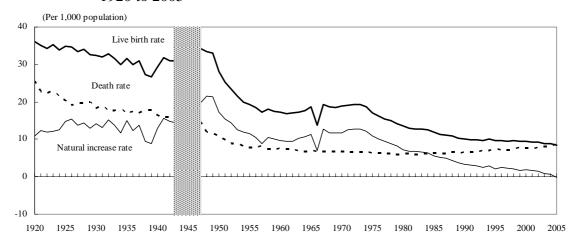
Compared with the figure in 1920, the year in which the first Population Census was conducted, the population of Japan has grown 2.3 times over the past 85 years. (Table 1.1, Figure 1.1)

Incidentally, the trends in the population from 2000 to 2005 as of October 1 in each year show that the population reported by the Population Census in 2005 is 20 thousand less than 127.79 million, the population estimated in 2004. This is the first time since the end of World War II that the population of the current year as of October 1 has fallen below that of the previous year.

#### The live birth rate continues to decline.

According to the observed trends in the live birth rate and the death rate reported in the Vital Statistics of the Ministry of Health, Labour and Welfare, the death rate, which was 25.4 per 1,000 population in 1920, declined significantly after 1920 and remained in the range of 6 from 1966, and then fell to 6.0 in 1979 and 1982. The death rate then went up, and continued to rise reaching 7.4 in 1995, 8.0 in 2003, and 8.6 in 2005 as society ages. Meanwhile, between 1947 and 1949, the live birth rate rose back to the level recorded in 1924 to 1928 of 33 to 34 births per 1,000 population, thanks to the first baby boom, but dropped sharply in 1950 to 1954, leveling off to around 17 and 18 between 1955 and 1970. The second baby boom from 1971 to 1974 pushed the live birth rate up to the 19 range, but the rate then showed a downtrend, dropping to 8.4 in 2005, which is the first time that the live birth rate has dropped below the death rate since the start of the statistics. (Table 1.2, Figure 1.1)

Figure 1.1 Trends in the Live Birth Rate, Death Rate and Natural Increase Rate: 1920 to 2005



Source: "Vital Statistics", Ministry of Health, Labour and Welfare.

Note: The trend between 1944 and 1946 is excluded.

**Table 1.1 Trends in the Population, Population Change and Population** 

**Density**: 1872 to 2005

	Population <sup>1)</sup>	Population over fix	on change ve years	Population	Population	
Year	Topulation	Number	Rate	density	index	
	(thousands)	(thousands)	(%)	(per km <sup>2</sup> )	(1920=100)	
1872 1875 1880 1885 1890	34,806 35,316 36,649 38,313 39,902 41,557	4) 510 1,333 1,664 1,589 1,655	4) 1.5 3.8 4.5 4.1 4.1	91 93 96 100 105	62 63 65 68 71 74	
1900	43,847	2,290	5.5	115	78	
1905	46,620	2,773	6.3	122	83	
1910	49,184	2,564	5.5	129	88	
1915	52,752	3,568	7.3	138	94	
1920	71,733	3,211	6.1	147	100	
1925		3,774	6.7	156	107	
1930		4,713	7.9	169	115	
1935		4,804	7.5	181	124	
1940 <sup>2)</sup>		2,679	3.9	188	129	
1945 <sup>3)</sup> 1950 1955 1960 1965	72,147	780	1.1	196	129	
	84,115	11,052	15.3	226	150	
	90,077	5,962	7.1	242	161	
	94,302	4,225	4.7	253	169	
	99,209	4,908	5.2	267	177	
1970	104,665	5,456	5.5	281	187	
1975	111,940	7,274	7.0	300	200	
1980	117,060	5,121	4.6	314	209	
1985	121,049	3,989	3.4	325	216	
1990	123,611	2,562	2.1	332	221	
1995	125,570	1,959	1.6	337	224	
2000	126,926	1,356	1.1	340	227	
2005	127,768	842	0.7	343	228	

<sup>1)</sup> The figures for 1915 and before refer to the estimated population as of January 1 of the respective years by the Statistics Bureau of the Cabinet. Those for 1920 and thereafter refer to the population as of October 1. The figure for 1945, however, is as of November 1.

Source: For the figures in and before 1915, "Population of Japan in and after 1872", Statistics Bureau of the Cabinet. For the figures between 1920 and 2005, the results of the Population Census or Population Survey.

<sup>2)</sup> The population as corrected by subtracting 1,181 thousand, which is the estimated number of military and civilian personnel, etc. outside of Japan, from 73,114 thousand, which is the population reported in the Population Census.

<sup>3)</sup> The population count as corrected by adding 149 thousand, which is the estimated number of military personnel and foreign residents, to 71,998 thousand, which is the population reported in the 1945 Population Survey. Excludes Okinawa-ken.

<sup>4)</sup> Population increase over the three-year period.

<sup>5)</sup> Excludes Okinawa-ken.

Table 1.2 Trends in the Live Birth Rate, Death Rate, Natural Increase Rate and Total Fertility Rate: 1920 to 2005

Year <sup>1)</sup>	Live birth rate (per 1000 population)	Death rate (per 1000 population)	Natural increase rate (per 1000 population)	Total fertility rate
1920	36.2	25.4	10.8	-
1925	34.9	20.3	14.6	5.11
1930	32.4	18.2	14.2	4.72
1940	29.4	16.5	12.9	4.12
1950	28.1	10.9	17.2	3.65
1955	19.4	7.8	11.6	2.37
1960	17.2	7.6	9.6	2.00
1965	18.6	7.1	11.4	2.14
1970	18.8	6.9	11.8	2.13
1975	17.1	6.3	10.8	1.91
1980	13.6	6.2	7.3	1.75
1985	11.9	6.3	5.6	1.76
1990	10.0	6.7	3.3	1.54
1995	9.6	7.4	2.1	1.42
2000	9.5	7.7	1.8	1.36
2001	9.3	7.7	1.6	1.33
2002	9.2	7.8	1.4	1.32
2003	8.9	8.0	0.9	1.29
2004	8.8	8.2	0.7	1.29
2005	8.4	8.6	-0.2	1.26

<sup>1)</sup> Between 1950 and 1970, excludes Okinawa-ken.

Source: "Vital Statistics", Ministry of Health, Labour and Welfare.

### 2. Japan's Population from a Worldwide Perspective

### The population of Japan ranks tenth in the world, dropping in rank.

The United Nations estimates that the world population is 6.515 billion as of mid-2005, of which the total population of Japan accounts for 2.0%. According to the population of the respective countries reported in the U.N. estimates, China is the most populous country with 1.313 billion people, followed by India (1.134 billion), the United States (300 million), Indonesia (226 million), Brazil (187 million), Pakistan (158 million), Bangladesh (153 million), Russia (144 million), and Nigeria (141 million), next to which comes Japan, ranking tenth. (Table 1.3, Figure 1.2)

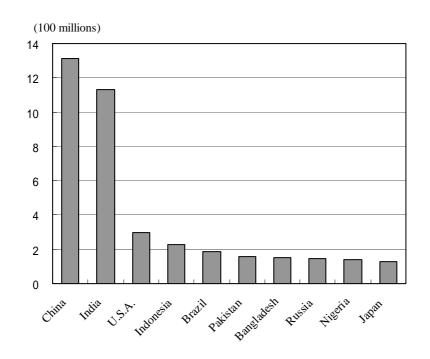


Figure 1.2 International Comparison of Population: 2005

Source: United Nations, *World Population Prospects, The 2006 Revision*. For Japan, based on the Population Census.

# The population density of Japan is 343 per square kilometer, 7.1 times the world population density.

The population density of Japan as of 2005 is 343 per square kilometer, which is 7.1 times the world population density (48 per square kilometer) estimated by the United Nations. According to the population density of other countries reported in the U.N. estimates, Japan ranks fifth among countries with a population of 10 million or more, following Bangladesh (1,064 per square kilometer), Korea (481 per square kilometer), Netherlands (393 per square kilometer), and India (345 per square kilometer). Among countries with a population of 10 million or more, countries with the lowest population density are Canada and Australia each recording 3 per square kilometer. Among countries with a population of 100 million or more, the United States, Brazil, and Russia each record a population density below the world average population density. (Table 1.4)

**Table 1.3 International Comparison of Population**: 2005, 2025 and 2050

-	2005				2025		2050			
Rank	Country	Population	world population	Country	Population	world population	Country	Population	Proportion to whole world population	
		(thousands)	(%)		(thousands)	(%)		(thousands)	(%)	
	World	6,514,751	100.0	World	8,010,509	100.0	World	9,191,287	100.0	
1	China	1,312,979	20.2	India	1,447,499	18.1	India	1,658,270	18.0	
2	India	1,134,403	17.4	China	1,445,782	18.0	China	1,408,846	15.3	
3	U.S.A.	299,846	4.6	U.S.A.	354,930	4.4	U.S.A.	402,415	4.4	
4	Indonesia	226,063	3.5	Indonesia	271,227	3.4	Indonesia	296,885	3.2	
5	Brazil	186,831	2.9	Brazil	228,833	2.9	Pakistan	292,205	3.2	
6	Pakistan	158,081	2.4	Pakistan	224,956	2.8	Nigeria	288,696	3.1	
7	Bangladesh	153,281	2.4	Nigeria	210,129	2.6	Brazil	254,085	2.8	
8	Russia	143,953	2.2	Bangladesh	206,024	2.6	Bangladesh	254,084	2.8	
9	Nigeria	141,356	2.2	Russia	128,193	1.6	Congo	186,837	2.0	
10	Japan	127,768	2.0	Ethiopia	124,996	1.6	Ethiopia	183,404	2.0	
11	Mexico	104,266	1.6	Mexico	124,695	1.6	Philippines	140,466	1.5	
12	Viet Nam	85,029	1.3	Japan	119,270	1.5	Mexico	132,278	1.4	
13	Philippines	84,566		Philippines	115,878	1.4	Egypt	121,219	1.3	
14	Germany	82,652	1.3	Congo	107,481		Viet Nam	119,971	1.3	
15	Ethiopia	78,986	1.2	Viet Nam	106,357	1.3	Russia	107,832	1.2	
16	Turkey	72,970	1.1	Egypt	98,513	1.2	Iran	100,174	1.1	
17	Egypt	72,850	1.1	Turkey	89,557	1.1	Turkey	98,946	1.1	
18	Iran	69,421		Iran	88,027		Japan	95,152	1.0	
19	Thailand	63,003		Germany	80,341		Uganda	92,935		
20	France	60,991	0.9	Thailand	68,803	0.9	Tanzania	85,077	0.9	

Source: United Nations, World Population Prospects, The 2006 Revision, Medium Variant. For Japan, the figures for 2005 are based on the Population Census, and the figures for 2025 and 2050

are based on "Population Projections for Japan (December, 2006)", National Institute of Population and Social Security Research, Medium Variant.

**Table 1.4 International Comparison of Population** 

**Density**: 2005

Country	Population density (per km <sup>2</sup> )	Country	Population density (per km <sup>2</sup> )		
World	48				
Bangladesh	1,064	Germany	232		
Korea	481	Italy	195		
Netherlands	393	Nigeria	153		
India	345	China	137		
Japan	343	France	111		
Belgium	341	U.S.A.	31		
Sri Lanka	291	Brazil	22		
Philippines	282	Russia	8		
Viet Nam	256	Canada	3		
U.K.	248	Australia	3		

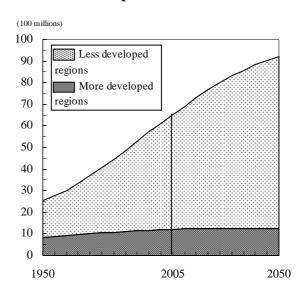
Source: United Nations, *World Population Prospects, The 2006 Revision.* For Japan, based on the Population Census.

### 3. International Comparison of Population Projections

### The world population is expected to reach almost 9.2 billion by 2050.

According to the United Nations' estimates, the world population, which was approximately 500 million in 1500, exceeded one billion in the first half of the 19th century. The increase in the world population then gradually accelerated, reaching two billion by 1930, three billion by 1960, four billion by 1975, and exceeding six billion by 2000. It is estimated that the world population will reach 8.3 billion by 2030 and almost 9.2 billion 2050. The average population change rate, which ranged from 0.4 to 0.5% until the 19th century, also started rising sharply at the dawn of the 20th century, and was around 2% from 1960 to 1970. The population increase ratio then declined gradually, and is expected to keep declining in years to come. (Table 1.5, Figure 1.3)

Figure 1.3 Trends in the World
Population: 1950 to 2050



Source: United Nations, *World Population Prospects, The 2006 Revision*, Medium Variant.

## The total population of Japan is estimated to decrease to 95.15 million by 2050.

According to the population projections of the National Institute of Population and Social Security Research (worked out in December 2006), the total population of Japan is expected to enter into a long phase of decline from 2005. It is estimated that the population will drop to 115.22 million by 2030, fall below 100 million to 99.38 million by 2046, and finally shrink to 95.15 million in 2050, which is equivalent to three-quarters of the population recorded in 2005. (Table 1.6)

### Population decreases are projected in European countries as in Japan.

According to the population projections of other countries by 2050, there are many countries with decreasing populations in the European region, and their rates of population decrease are expected to rise gradually as in the case of Japan. In most countries outside the European region, the population is expected to increase in the future. (Table 1.6)

**Table 1.5 Trends in the World Population** : 1500 to 2050

Year	Population (millions)	Annual population change rate (%)			
1500	500	-			
1750	790	0.18			
1800	980	0.43			
1850	1,260	0.50			
1900	1,650	0.54			
1950	2,535	0.86			
1960	3,032	1.81			
1970	3,699	2.01			
1980	4,451	1.87			
1990	5,295	1.75			
2000	6,124	1.47			
2005	6,515	1.24			
2010	6,907	1.17			
2020	7,667	1.05			
2030	8,318	0.82			
2050	9,191	0.50			

Source: The figures for 1950 and thereafter are based on United Nations, *World Population Prospects, The 2006 Revision*, Medium Variant, and those for 1950 and before are based on United Nations, *The World at Six Billion*.

Table 1.6 International Comparison of Population Projections: 2005 to 2050

	Population (thousands)						Population change rate (%)					
Country	2005	2010	2015	2020	2030	2040	2050	2005- 2015	2010- 2020	2020- 2030	2030- 2040	2040- 2050
Asia												
China	1,312,979	1,351,512	1,388,600	1,421,260	1,458,421	1,448,355	1,408,846	5.8	5.2	2.6	-0.7	-2.7
India	1,134,403	1,220,182	1,302,535	1,379,198	1,505,748	1,596,719	1,658,270	14.8	13.0	9.2	6.0	3.9
Indonesia	226,063	239,600	251,567	261,868	279,666	292,061	296,885	11.3	9.3	6.8	4.4	1.7
Pakistan	158,081	173,351	190,659	208,315	240,276	268,506	292,205	20.6	20.2	15.3	11.7	8.8
Bangladesh	153,281	166,638	180,114	193,333	217,932	238,600	254,084	17.5	16.0	12.7	9.5	6.5
Japan	127,768	127,176	125,430	122,735	115,224	105,695	95,152	-1.8	-3.5	-6.1	-8.3	-10.0
Viet Nam	85,029	90,845	96,467	101,656	110,429	116,676	119,971	13.5	11.9	8.6	5.7	2.8
Philippines	84,566	93,001	101,090	108,748	122,388	132,862	140,466	19.5	16.9	12.5	8.6	5.7
Turkey	72,970	77,703	82,111	86,070	92,468	96,787	98,946	12.5	10.8	7.4	4.7	2.2
Korea	47,870	48,673	49,117	49,221	48,411	45,961	42,327	2.6	1.1	-1.6	-5.1	-7.9
North America												
U.S.A.	299,846	314,692	329,010	342,547	366,187	385,868	402,415	9.7	8.9	6.9	5.4	4.3
Canada	32,271	33,752	35,191	36,588	39,105	41,069	42,754	9.0	8.4	6.9	5.0	4.1
South America												
Brazil	186,831	198,982	210,048	219,992	236,480	247,814	254,085	12.4	10.6	7.5	4.8	2.5
Mexico	104,266	110,293	115,756	120,559	128,125	132,237	132,278	11.0	9.3	6.3	3.2	0.0
Argentina	38,747	40,738	42,676	44,486	47,534	49,786	51,382	10.1	9.2	6.9	4.7	3.2
Europe												
Russia	143,953	140,318	136,479	132,407	123,915	115,782	107,832	-5.2	-5.6	-6.4	-6.6	-6.9
Germany	82,652	82,365	81,825	81,161	79,348	76,852	74,088	-1.0	-1.5	-2.2	-3.1	-3.6
France	60,991	62,507	63,746	64,825	66,605	67,819	68,270	4.5	3.7	2.7	1.8	0.7
U.K.	60,245	61,517	62,787	64,033	66,162	67,581	68,717	4.2	4.1	3.3	2.1	1.7
Italy	58,646	59,032	59,001	58,601	57,519	56,277	54,610	0.6	-0.7	-1.8	-2.2	-3.0
Ukraine	46,918	45,170	43,428	41,679	38,053	34,468	30,937	-7.4	-7.7	-8.7	-9.4	-10.2
Poland	38,196	37,902	37,580	37,079	35,353	32,934	30,260	-1.6	-2.2	-4.7	-6.8	-8.1
Africa												
Nigeria	141,356	158,313	175,715	193,099	226,855	259,233	288,696	24.3	22.0	17.5	14.3	11.4
Ethiopia	78,986	89,566	100,967	112,896	137,052	160,781	183,404	27.8	26.0	21.4	17.3	14.1
Egypt	72,850	79,537	86,219	92,578	104,070	113,895	121,219	18.4	16.4	12.4	9.4	6.4
Congo	58,741	69,010	80,569	93,375		154,938	186,837	37.2	35.3	31.4	26.2	20.6
South Africa	47,939	49,278	50,260	51,281	53,236	54,616	55,590	4.8	4.1	3.8	2.6	1.8
Uganda	28,947	34,040	39,966	46,749	61,548	77,100	92,935	38.1	37.3	31.7	25.3	20.5
Oceania												
Australia New Zealand	20,310 4,097	21,362 4,285	22,397 4,457	23,418 4,616	25,287 4,895	26,778 5,089	28,041 5,209	10.3 8.8	9.6 7.7	8.0 6.0	5.9 4.0	4.7 2.4

Source: United Nations, *World Population Prospects, The 2006 Revision,* Medium Variant. For Japan, the figures for 2005 are based on the Population Census, and those between 2010 and 2050 are on "Population Projections for Japan (December, 2006)", National Institute of Population and Social Security Research, Medium Variant.