

## **PRODUCTIVE & REPRODUCTIVE FEMALES - A ROADMAP TO SUCCESS FOR DEPOPULATING JAPAN**

**S. Saravanan**

Assistant Professor, Justice K S Hegde Institute of Management, Nitte, India  
Email: saravanansnr@gmail.com

### **ABSTRACT**

*Japan today faces a crisis in its population reducing over time commonly known as depopulation. The depopulation generates various kinds of social, cultural and economic problems. This article introduces the phenomenon of depopulation with special emphasis on Japan. Also it highlights the major causes for depopulation and how some of these factors selectively apply to Japan.*

*Increase in percentage of literates and those seeking jobs among females has increased. This naturally leaves less time for females to spend their time on looking after children. While devising strategies to combat depopulation considering the need of the corporate female employees is important for success. Starting from early 1990s to till date more than 80% of the Japanese new born are contributed by the female age group of 20-40 years. Currently, the majority of this 20-40 years female age group is working as corporate employees in Japan. As the topic suggests the Japanese government should refocus its strategies on corporate female employees in the age group of 20-40 years (known as productive & reproductive females). Different countries have adopted different means to overcome the depopulation problem. In all these measures there are some assumptions made by the respective governments of what the public values. This paper takes the position that the misconception of government regarding the value proposition that the public deem important is one of the main reasons for failure their depopulation strategies. This paper suggests specific strategies to Japanese population problems. It tracks the important demographic changes which are the core contributors of depopulating Japan. The statistical data used in this paper is taken from the recent survey done by National Institute of Population and Social Security Research. A unique solution has been devised and discussed in detail for each & every demographic problem. It ends with a solution checklist for different*

*population problems of Japan which will help as a ready reckoner for Japanese population issues.*

**Keywords:** Female Employees, One Child per Family, Depopulation, Aging Society, Strategy

## INTRODUCTION

Depopulation is quite a common problem in several countries. But the main reason of depopulation widely varies across countries. For example, emigration is the main cause of depopulation problem in Albania. Similarly, AIDS in Guyana, high death rate in Serbia, high abortion rates in Russia& Bulgaria are the main causes of depopulation in respective countries. In Japan, depopulation is mainly due to low birth rate and up to some extent due to low level of immigration as well. In order to get an overview of the problem, it is necessary to compare the population data of different depopulating countries.

**Table 1.** List of Depopulating Countries Due to Low Birth Rate (Lowest to Highest)

Country*	Population (2012)	Rate of natural decrease (%)
Poland	38,415,284	0.075
<b>Japan</b>	<b>127,368,088</b>	<b>0.077</b>
Croatia	4,480,043	0.092
Czech Republic	10,177,300	0.134
Hungary	9,958,453	0.184
Germany	81,305,856	0.2
Romania	21,848,504	0.26
Lithuania	3,525,761	0.278
Belarus	9,542,883	0.362
Latvia	2,191,580	0.598
Montenegro	657,394	0.633
Estonia	1,274,709	0.65
Moldova	3,656,843	1.014

**Note:** \*Only depopulating countries due to low birth rate included)

**Source:** [http://en.wikipedia.org/wiki/Population\\_decline](http://en.wikipedia.org/wiki/Population_decline)

From the above table it is evident that Japan has the highest population among depopulating countries and lowest rate of natural decrease. (i.e) In other words, reproductive rate of Japan is comparatively better than other countries. The proactive initiatives will help Japan to overcome population issues.

## Highlights of Japanese Population Trend

The Japanese population reached its peak at 127 million (in2004) projected to be 115 million (in 2030) and further to be 95 million (in 2050). Some of the important aspects of the

projected future population are: The annual population growth rate decreased from 4.02% (in 1945) to nil. The birth rate has been gradually reduced over the years and matched death rate recently and expected to decline further. The birth rate is expected to be 5 times lesser than death rate in 2055. It is estimated that only 3/4<sup>th</sup> of the current population will be the total population in 2055. The new born (0-4) years are currently 4% of total population, estimated to reach 3% in 2030 further 2% by 2055. The number of deaths has been reduced due to medical sophistication and the number of new born also decreased due to life style change resulting in ageing population. The new born rate is tenfold times reduced and death rate is reduced up to six fold times (As per the comparison of 1925 data).

The proportion of 65 years and above to the total population increased up to five times but the proportion of teenager is reduced to nearly half. In other words the total dependent ratio remains the same but the proportion of child dependent decreasing whiles the proportion of elderly dependent increasing in trend (projected to be 80% of total dependents in 2055). The annual growth rate of 65 years and above significantly increased (from 0.38% to 3.63%) but the same for teenager (0-14 years) is reduced (from 3.06% to -0.49%). The mean age is increased from 28 years (1884) to 43 years currently and expected to reach 55 years in 2055. The current Sex ratio at birth is 105.3 (ratio of males to 100 females). The current Sex ratio at death is 115.6 (ratio of males to 100 females). This difference in long run will lead to inappropriate proportion of males and females. The sex ratio will be distorted due to higher death rates of males. Taking preventive steps in the initial phase is easier than corrective steps in the later phase.

## **Strategies for Japan to Combat against Depopulation**

### **Population Research Forums**

All depopulating countries can create a common research forum in collaboration with UNICEF. The research forum can focus on researches related to population issues and suggest initiatives to respective countries government. Further, the research forum should monitor the initiatives and give corrective measures for better implementation. The collaborative researches tend to yield more due to synergic effect.

### **Reproductive Females**

Since 1925, the age group of (20-40) years (Reproductive females) has been contributing maximum to the Japanese population growth. The current contribution is up to 80% of the total new born population which is comparatively higher than any other female age group of Japan.

The reproductive females proportion to total population has been at constant level of around 14% proportion to total population over these years and estimated to be 10% (in 2030) and 8% (in 2055).

The specific analysis of the age group of (20-40) years (Reproductive females) is important as it is the only age group has capacity to increase the birth rate significantly. The death rate has been reduced from 64‰ to 2‰. The major causes of deaths are suicide, accidents and malignant neoplasm. The corporate married females are responsible for household work as

well. They can reduce the domestic burden with the help of housemaid. The counseling centers should teach yoga which is really useful to reduce the mental tensions and help to concentrate. The counseling therapy will be very useful for reproductive females to overcome suicidal tendency. The Japanese government can encourage public to follow traffic rules by offering more NCB (No Claim Bonus) for automobile insurance etc. Similarly the traffic violations can be discouraged by imposing heavier penalties. The number of deaths due to malignant neoplasm can be reduced by specialized cancer hospitals which are into research& practice.

### **Occupation Rate (Reproductive Females)**

As per the recent survey, most of the reproductive females are employed in tertiary industries (Tertiary industry: electricity, gas, heat supply and water, transport and communications, wholesale and retail trade, eating and drinking places, financing and insurance, real estate, services, government (not elsewhere classified). More specifically employed into manufacturing, wholesale& retail trade, medical-healthcare& welfare and services not elsewhere classified

Employee rate to employed persons (Reproductive females) is significantly increased to more than 90%. More than 70% are working as employees in companies (rest is self-employed etc) and nearly half of them are currently married. The government should give special attention to obstetricians. Japan corporate should be clustered into small units and each unit should have one specialized maternity hospital. The obstetrician needs to conduct meeting periodically among corporate females regarding bigger and happier family and explain about quality services of specialized maternity hospitals. The best obstetrician awards can be given to create healthy competition among doctors. The physicians should be encouraged to take obstetrics as a career.

Pre and post maternity leaves can be extended. Each corporate should provide special cab for (free pickup and drop) for female employees with newborn. Also, corporate can develop a child care center inside the campus and provide extended tea breaks and lunch breaks for female employees with new born. Wherever possible, “work from home” can be adopted. Specialized maternity hospitals should spread the awareness and inculcate the importance of bigger family to corporate reproductive females. The Japan corporate (more specifically industries like manufacturing, wholesale& retail& medical services etc) should provide extended maternity benefits to its employees. The Japanese government is not solely responsible for population control but public, corporate are also equally responsible. The Government can devise a population strategy but the support of public& corporate is required for successful implementation. In order to get such support the legal regulations of Japan should be modified. For example, the reproductive females should be empowered to avail the extended maternity benefits any number of times. At the end of each financial year, the government should access the corporate accounts to ascertain the provision of extended maternity benefits. A reasonable corporate subsidy can be given to compensate the losses due to extended maternity benefits.

**Divorce Proportion (Reproductive Females)**

The divorce proportion to total marriages increased from 14% to 93% recently. Most of the divorce cases occur in the initial years of married life and few in the later stages too. The divorce proportion is increasing in trend and need to be dealt with a sense of urgency. The counseling centers can actively participate and reduce the divorce proportion. Each counseling center should have a chief counselor (preferably psychiatrist) and volunteers from different walks of life. Completion of minimum 5 years of married life can be made as mandatory for each couple before divorce. This minimum requirement trigger can considerably reduce the divorce proportions.

**Fertility Status (Reproductive Females)**

The fertility rate (Reproductive Females) has been drastically reduced from an average of 258 % to 193 % recently. This shows people preference towards one or two children only. The 1<sup>st</sup> birth proportion to total newborn increased from 27% (1950) to 48% recently. Similarly the 2<sup>nd</sup> birth proportion to total newborn increased from 28% to 37%. This reveals people earlier preferred to have more number of children and now prefer to have either one or two children only. The total fertility rate reduced from 5.10 (1925) to 1.36. This shows earlier parents had on an average of 5 children and now has only one. The initiatives for larger family should be routed through specialized obstetrics hospitals. The obstetrician should be trained to counsel and convince public to have at least two children. The role of supportive staffs is vital for successful implementation of population control initiatives. The proportion of people having higher education increased substantially over the period of time for Japan. The educated people do not expect merely any incentives etc. But they are more concerned with quality higher education, standard of life of their children. The Japanese government should ensure increased accessibility to higher education and employment opportunities. *Further*, the government can provide concession of service charges for new born instead of incentives. By providing concessional services, the government can assure the benefit reaches the child. The cash incentives may be misused for other personal purposes. It is preferable to devise concession plans for tax and non-tax payers differently. The non-tax payer's benefits should be slightly higher than others. Also, the government can avoid free services for 1<sup>st</sup> child as everyone prefers to have at least one child per family. The 2<sup>nd</sup> child onwards services can be provided at concessional rates for a fixed term.

**Table 2. Services Concession Chart\***

	<b>1st Child</b>	<b>2nd Child (Up to 10 Yrs)</b>	<b>3rd and so on (Up to 10 Yrs)</b>
Tax payers	No Concession	50% Concession	Free
Non-tax payers	No Concession	Free	Free

**Note:** \*The services cover important areas like healthcare, education, transportation etc.

In order to encourage bigger family, the government can announce assured government job for every 5<sup>th</sup> new born of the family. The nature of the job will commensurate with the educational qualification of the child.

**Reinforcement of Self-interest**

Manpower is the need of the hour for Japan. Each citizen should realize he/she can contribute for tomorrow's manpower. Having at least two children should be positioned as responsibility of each citizen. One astonishing fact to be observed that starting from 7<sup>th</sup> JNFS-Japanese National Fertility Survey (1977) to recent survey each married women intended to have at least two children on an average. The Japanese Govt. should reinforce this self-interest of public through effective advertisements. Advertisements can be shown in television regarding having bigger family. A specific slogan can be created for advertisements. (i.e) We two- for us two. In TV serials, movies bigger and happier family can be shown and seriousness of depopulation can be inculcated. In schools and colleges essay competition on "Devising strategies to overcome depopulation" should be conducted to create awareness among youngsters. Mini pocket-size booklets on "Depopulation – issues& solutions for Japan" can be printed and circulated (or) E-book can be made available in Government websites and circulated through mail. Short films encouraging bigger family can be shown to corporate employees. Government can send mass E-mails and sms's periodically to create and sustain the awareness about depopulation

**Mean Age at Marriage and Birth**

The mean age of brides at 1<sup>st</sup> marriage increased from 23 (1910) to 28 (2006). The mean age of females at 1<sup>st</sup> birth increased from 25 (1955) to 28 (2006). The mean age of females at 2<sup>nd</sup> birth increased from 27 (1955) to 30 (2006). In 1955 around 85% of people had first child with 2 years after marriage. But recently only 63% of people had first child with in 2 Years of marriage further it is projected that the percentage will fall further. The people should be encouraged to marry at the age of 20 years (Female age) and not to delay pregnancy. The married couple should be encouraged to have children in the initial years of marriage. So that the children can support the parents at their later stages of life.

**Specialized Hospitals in Obstetrics& Consultation Centers**

The contraceptive device usage increased from 19% (1950) to 52%. The use of condoms for contraception increased from 35% (1950) to 78%. The Abortion-birth ratio increased from 3.8%(1949) to 25. 3%. Proportion of induced abortion increased from 68% (1952) to 71%.

Only the specialized hospitals should be authorized to sell contraceptive pills, devices and condom. The price of such products should be kept high. This will reduce the accessibility to contraceptive measures. The promotion of contraceptive devices in media should be discouraged to reduce the awareness level. The government should discourage the contraceptive pills, devices and condom usage. The contraceptive devices usage should be banned for reproductive females (20-40 years).

The sterilization& abortion should be banned for the productive& reproductive females (20-40 years) and can be allowed if they have 2 or more children.

## **Mortality Ratios (Related to Maternity)**

Infant mortality ratio (deaths per ‰) reduced from 155 (1900) to 2. The Neonatal mortality ratio (deaths per ‰) (death rate during the first 28 days of life) reduced from 79 (1900) to 1. The perinatal mortality ratio (deaths per ‰) (death rate during the 5 months before & 1 month after birth). Reduced from 21 (1979) to 4. Maternal mortality rate (for 1,00,000 births) reduced from 409 (1899) to 4. The number of specialized maternity hospitals should commensurate with the requirement to sustain the mortality rates.

## **Immigrants and Emigrants**

Majority of the foreign labourers working in Japan are migrating in search of better prospects. The rate of Immigration and emigration are currently equal in Japan. The Japan government should start world class higher educational institutions in collaboration with foreign universities. Specifically, new courses in the fields of medical, engineering & management can be started to meet the requirement. Working in Japan, at least for a period of 5 years can be made as legally mandatory for the fresh medical and technical graduates from Japan. The Japan can change the immigrants & emigrants ratio to its favour by providing lucrative employment opportunities for long run. The focus can be given on importing potential manpower (untrained). The young's in the age group of around 20 yrs can be imported and trained in different fields to fit the corporate requirements. The excess manpower in countries like China, India etc can be imported to Japan. The long-term commitment of this young age group will be higher than others. If we import well educated and trained manpower, they tend to leave Japan soon in search of better prospects.

## **CONCLUSION**

The specialized maternity hospitals are shown as a solution for different population related problems in the checklist (Please refer the checklist below). It is important to start specialized maternity hospitals in Japan as it can answer several issues. These maternity hospitals should provide dedicated services to *reproductive females* in their respective territory. The successful implementation of population control measures to a larger extent depends on the efficiency of these maternity hospitals. The Japan can be a role model for other depopulating countries if it successfully establishes such specialized maternity hospitals.

		Solutions						
		Specialised hospitals in Cancer, obstetrics& consultation centres	Counseling centres	Extended employee benefits during& after pregnancy	Restrictions by legal regulations	Encouragem ent to have larger families	Encouragem ent for early marriage& child	Discouragem ent to contraceptive devices& abortion
S P e c i f i c J a p a n e s e p r o b l e m s	Reproductive females - decreasing					★		
	Main causes of death of reproductive female - Suicide, Accident& Cancer	★	★		★			
	Reproductive female employee rates -increasing	★		★	★			
	Reproductive female employees - nearly 50% are married	★		★				
	Reproductive female Divorce proportion - increasing		★		★			
	Reproductive females degrowth of Fertility rate	★				★		
	Proportion of 1st birth - Increasing	★				★		
	One child per family	★				★		
	Mean Age at marriage - increasing						★	
	Mean age at 1st birth - increasing						★	★
	Interval between marriage& 1st child - increasing						★	★
	Measures to avoid pregnancy - increasing	★			★			★
	Abortion to birth - ratio - increasing	★			★			★
	Immigration rate - increasing				★			

**Checklist - Specific Japanese population problems& solutions**

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