

日本人口の構造と変動

— 上 —

まえがき

(1) 若干の歴史的回想

国立人口問題研究所の設立が朝野を通じて強く要望されるに至ったのは昭和の初頭であった。そのころの日本は長く慢性的不況のさなかにあり、それに加えて1930（昭和5）年には世界恐慌の波が押し寄せてきた。深刻な生活難と失業問題に直面して人口問題に対する基本的な反省が強く要望されるに至ったのはきわめて当然のことであった。それは明治以降近代日本の成長のあとを、もう一度根本から反省してみようという願いの結晶でもあった。

しかし、研究所創設の要望が実際に達成されたのは、ずっと遅れて1939（昭和14）年であった。日本はその行き詰まりの打開を国民経済の軍事化に求め、1937年にはすでにシナ事変に突入していた。したがって研究所の当面の仕事も、人的資源の動員計画や戦争による直接間接の人口損耗に対する対策に全勢力を投入せねばならなかったが、事態が深刻さを濃くするほど、わが国人口問題の歴史的特殊性をもう一度基礎理論的に反省してみねばならないという気持ちは、十分に満たされなかったとは言え、かえっていっそう痛切に感ぜられた。

終戦は事態を全く一変した。人口問題は人口と食糧との極端なアンバランスという最も原始的な形で再出発した。いままで禁断の知恵であった産児の調節が国民的関心をひき始めたのも局面の急変を回想させる思い出の一つである。にもかかわらずわれわれは、1947（昭和22）年から49年にかけての3年間に、異常な出生ブームに直面した。それは戦時にやむなく抑制されていた婚姻や出生が一時に累積して現われてきた結果ではあったが、いわば全国民的な窮乏生活の気安さがその発生をいっそう容易にしたことも否定しがたい。

戦後国民経済の再建復興は、1950（昭和25）年ごろからどうやら明るい希望をいだかせるようになり、とくに1955年以降は国際的にも注目される高度経済成長の時期に入るが、出生率もまた1950年以降国際的に見ても画期的な低下傾向を実現した。高度の経済成長は同時に経済構造の高度化であり、国民生活の急速な構造的進化を意味する。出生率の低下はその最も集約的な人口学的指標と言ってよい。

高度経済成長とともに人口問題の様相もまた一変した。1949（昭和24）、50年ごろは潜在失業問題や、とりわけ農家の次三男問題が関心の焦点であったが、今は労働力、とくに若年労働力の不足が訴えられ、農村でも人手の不足、とくに農家跡継ぎの離農離村がかこたれる状況に変わった。そして最近の国内人口移動の状況には戦時の兵力および労務動員のすさまじさをほうふつさせるものがある。

激しい人口移動が今さまざまな社会的摩擦を引き起こしていることは周知のとおりであるが、かつては国家権力によって強制された大規模の人口再配置が今は経済の necessity とそれに対応する国民個々人の自発的な適応によって進行しつつあることも特記に値いすることがらであろう。急速な資本蓄積の必要が国民総生産中に占める個人消費支出の割合を戦時なみに低下させていることは事実であ

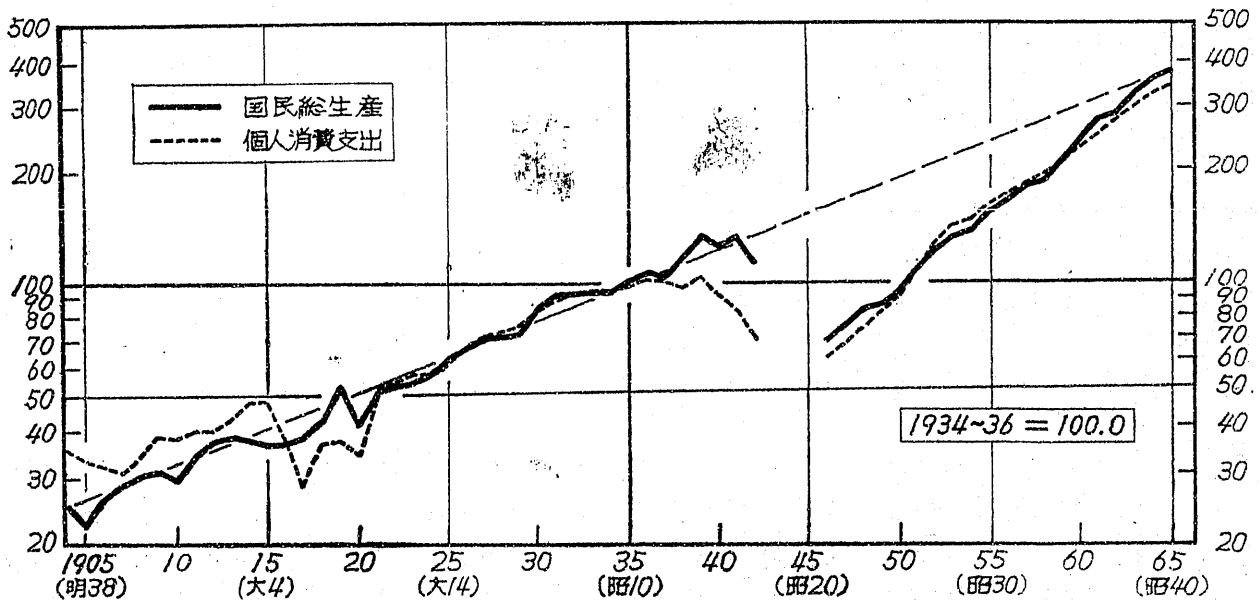
るが、国民の実質消費水準が戦時とは逆に順調な伸びを続けていることも注目し値にする。戦前の日本が直面していた行き詰まり、そして戦争に唯一の活路を見いださざるをえなかった行き詰まりは、敗戦という大きな犠牲を払うことによってようやく体質的に更生し、その成長力を回復したと言ってよい。そして戦前日本の行き詰まりが過剰人口の悩みとして集約されるように、戦後日本の体質的更生は当然に戦後人口の構造的変動として指摘されるものでなければなるまい。上記出生率の低下はその一端を示すものであるが、このような人口の構造的変動は国民経済と国民生活の構造的進化の結果であるとともに、またその成果を定着化し、かつそれをいっそう促進する基本要因として作用する。人口の構造変動の分析は国民経済と国民生活のあり方を再確認し再評価するためにほうっておけない仕事になってきた。今日人口問題の重大さは、研究所の設立が強く要望された昭和初頭のそれに匹敵するものがある。

そうはいっても表面の事象には極端な相違がある。かつての大量失業の悩みに代わって今は労働力不足の訴えがあり、かつての景気の沈滞に代わって今はその過熱化が心配されてはいるが、労働力需給関係の変調が国民経済や国民生活の直面している転換期の苦難を示唆するものである点は全く同じであろう。

(2) 戦後人口の変動とその問題点

平均して年率10%を前後する戦後の高度経済成長は国際的にも誇るに足る実績であるが、戦前の日本も相当に高い成長を続けていた。明治末年から第2次世界大戦に突入するまでの国民総生産の伸びは平均してほぼ4.5%と推計されるが、もしこの成長率が戦争による破たんなしにそのまま伸び続けていたと仮定すると、現在の国民総生産は戦前(1934~36年)の約3倍半に達していることになる

戦前・戦後の経済成長：1905年~65年



戦前の国民総生産は、大川推計の生産国民所得により、デフレーターも、同推計の一般物価指数による。1933~37年基準指数。また、戦前の個人消費支出は山田推計の数字による。デフレーターは1927年までは上記大川推計の一般物価指数により、同年以降は生計費に関する上田指数、朝日指数、森田指数等をリンクした生計費指数による。1934~36年基準。

戦後は経済企画庁推計の年度数値による。1934~36年基準。

が、戦後の高度成長は、図に見るように、最近に至ってようやくこの戦前からの傾向線にまで国民経済を回帰させたことになる。だからといってそれは戦後の高度成長を軽くみてよいというわけではない。敗戦による大きな犠牲が、前段にもふれたように、戦前日本の行き詰まりを打開するために忍ばねばならなかった宿命であったとするならば、戦後の高度成長が単に復興需要にささえられたばかりでなく、むしろより多く経済体質そのものの民主的改善に負っていることを了解することができるであろう。そして人口の動向もまたそれにふさわしい変動を達成した。

その最も著しいものの一つは、戦前の多産多死型の人口動態が典型的な少産少死型のそれに変わったことである。もっとも戦前にも第1次世界大戦下の社会変動を背景として、出生率・死亡率ともに近代的な低下傾向を開始していたが、準戦時体制期にはいると死亡率の低下運動には明らかに停滞化の色が濃くなっていた。戦後出生率の低下も、単に戦前の傾向を再現したというだけでなく、国民的規模における「2児制度」と言ってよいような状況にまで徹底された。それは戦後の家族計画思想の国民的普及に負うものであるが、その背後には個人の生命と幸福追及の権利を至上のものとする民主主義思想の覚生がある。そして戦後の窮乏とそれから脱却しようとする願望と努力は国民経済の順調な成長の中で少産少死体制をいよいよ徹底させたと言えよう。それはまさしく人口動態の近代化と呼ばれるにふさわしい変化であった。

ところでこの変化は、いままでのところでは、死亡率の急低下が一方向的に作用して、生産年齢人口を戦前以上に激増させるという結果になっていた。それはまた高度経済成長下の労働力需要の増大に即応するものでもあったが、今明年をピークとして新規学卒労働力の供給は相当に急激な低下傾向に変わる。そして労働力人口の総数はその増加率をしだいに逡減させるばかりでなく、その平均年齢をしだいに高年化させてゆく。若年労働力不足の訴えは上述のとおりすでに始まっている。この変化を今後の経済成長にとっての悲観材料とする考えもないではないが、経済成長はいつまでも比較的低廉な若い未熟練労働力にたよっていてよいわけではない。それに戦後の少産少死の人口動態はそのような戦前体制に対する国民的プロテストでもあったはずである。そして戦後二十余年にして、この戦後体制は国民経済のあり方そのものに対して強力な注文をつける段階に達したと言えよう。

それにしても、純再生産率が1を割るほどになった今日の低出生率は、将来の労働力人口の単純再生産をもむつかしくするという意味で、低下の行き過ぎではないかという心配はある。しかし強度の資本蓄積が国民経済的に要請される時期に国民の消費生活が強く圧迫されることはやむをえないことであるばかりでなく、進んで甘受すべきことでもあろう。それに戦後の高度経済成長は、上記のとおり、今ようやく戦前の成長傾向線に回帰したばかりである。高度成長のためのさまざまなひずみを国民生活構造そのものの高度化という形でどう補強してゆくかということこそ今後の国民的課題であり、今後の出生率の動向もまたこの課題の解決いかにかかっていると見てよい。ここにも人口の側からする国民経済に対する重大な注文がある。無理せずにも第3子を生めるような生活の保障と、それが実現できるような国民経済の成長をそれは要求しているわけになる。

戦後人口の諸変動のうち、もう一つの特記すべき現象は人口移動が地域的にも社会的にも異常に激化された点にある。終戦直後の農村地域は戦時の疎開人口を大量にかかえていたばかりでなく、農家次三男の半失業的滞留に悩んでいたが、農林業就業者数は1960(昭和35)年に戦前水準を割り、その後の収縮は年率4%に近い速度でさらに一段と加速化されている。また非農林就業者数は1955年~60年に戦前の年率ほぼ2.0%近くの増加傾向から期待される水準にまで膨張し、最近もなお年率4%に近い速度で増勢を続けつつある。このような変動が人口の急激な大都市集中傾向となって、都市に人口過密化の悩みを発生させるに至ったことは周知のとおりであるが、他方農業労働力の収縮がその老

齡化と女性化という形で進行していることも忘れてはなるまい。

人口の移動は、労働力を生産性の比較的低位な部門からより高い部門へ配置換えして、総労働力の国民経済的効率の上昇に資するばかりでなく、労働力の相対的過剰に悩んでいた低生産部門の構造改善を促進するという意味でもきわめて望ましいことであるが、それが一方では大都市人口の過密化の、他方では農業人口の弱体化の悩みを発生させている現状については単に過渡期の一波乱として済ませるわけにゆかないものがある。というのは現状を過渡期と断定するに足るほどの未来の構図が実はまだ十分に用意されていないからである。そしてこの場合にも将来の人口および労働力の帰趨とその社会的に安定した再配分と再生産の見通しこそが国民経済のあり方を決める最後のかぎとならねばなるまい。われわれはいま戦後人口の劇的な諸変動をどのような形で安定化させるかという、戦後人口問題の最終的な仕上げの段階にさしかかっていると断言してもよい。それは将来日本の人口の再生産力と再生産構造を、人口学的にもまた国民経済的見地からも、どのような形で安定させることが可能であり、また最も望ましいかという国民的課題の設計を意味する。

(3) 本集編集の趣旨

研究所は昭和15年5月にその機関誌『人口問題研究』の第1号を刊行した。そして戦後人口問題がきわめて重大な局面を迎えるに至ったいまその第100号を迎えることになった。われわれは第100号の記念に兼ねて既往の研究成果を取りまとめ、わが国現下の人口および人口問題についての総括的な展望を行なうことがきわめて時宜に適したことと考へた。しかしわれわれが人口問題として取り組まねばならぬ政策的課題は、前段にもその一端にふれたように、きわめて広くかつ複雑なばかりでなく、その最終的な結論をうるにはきわめて多岐にわたった考証と吟味を必要とする。われわれはむしろそのような問題を念頭におきながら、わが国人口の現状をもっぱら人口学的に分析し、事実そのものによって問題の所在を示唆させることを主眼とした。

章節編成の大綱は別掲（奥付け）の世話人会によって行なわれたが、各節の執筆はそれぞれ1人の責任担当者をきめて委託された。ただし、各章ごとに数名のコメンターを定めて各主題の解明に疑義や欠落のないよう十分に注意した。

なお、本集編集の最終段階に至って所長館稔が病床につき、しばらくの間絶対安静を必要とする状況になったため、当人に予定されていた序論や一部章節の執筆は残念ながら他の者によって代行されざるをえないことになった。このまえがきもまたこの応急の代筆であることを諒とされたい。

（本多 龍雄）

STRUCTURE AND DYNAMICS OF THE POPULATION OF JAPAN

Introduction

1. Few Historical Reminiscences

It was in the latter half of 1920's when the establishment of a National Institute of Population Problems had come to be ardently demanded in the society. Japan was then under a long-lasting chronic depression which had increasingly been aggravated by the inroad of the wave of the world economic crisis in 1930. Having been faced with the serious difficulties of living and the problem of unemployment, it might have been only natural that the fundamental reconsideration of population problems came to be strongly called for. It was also a fruit of desires to introspect the trace of growth of modern Japan since the Meiji Restoration again in its fundamental grounds.

It was somewhat later in 1939, however, that the hope of establishment of the Institute came to realization. Japan sought for the breaking of her deadlock in the militarization of her national economy, and already in 1937 she broke into the China Affair. Accordingly, the initial work of the Institute had to be totally devoted to the plan of human resources mobilization and the measures to cope with direct and indirect human loss by the war. As the situation became more destitute, however, necessity for the reanalysis of historical peculiarities of Japan's population problems through basic theoretical approach was, though insufficiently satisfied, all the more keenly felt.

The termination of the war brought in the drastic change of the situation. Population problems started again in their most primitive form of the extreme unbalance of population and food supply. It is now recollected that it was a phenomenon to indicate the drastic change at the time that the forbidden wisdom, birth control, started to attract national interest. In spite of this, we experienced the abnormal baby boom for three years from 1947 to 1949. It was a bursting result of the accumulation of marriages and child-births inevitably prolonged during the war, but it can not be denied that a kind of socio-psychological relaxation on the part of the people under the nationwide uniform destitution in these years also assisted in paving the way for the boom.

The struggle for post-war reconstruction of national economy started to show some hopeful sign in 1950, and notably after 1955 the high-level economic growth deserving international attention set forth. Birth rate also realized the internationally epoch-making declining trend during the period succeeding 1950. The rapid economic growth is accompanied by the shift of economic structure and signifies the rapid structural evolution of people's life. The decline in birth rates may be regarded as the most intensive demogra-

phic indice connoting such change.

The rapid economic growth also effected a phenomenal change in population problems. While the central interests were the problems of under-employment or of second and third sons of agricultural households in 1949 and 1950, the problem of shortage in labour force particularly in young working ages has now taken the place and even agricultural villages also came to face with labour shortage due to heavy rural exodus. In fact, the scene of recent internal migration bears a close resemblance to the tremendous military and working forces mobilization during the war-time.

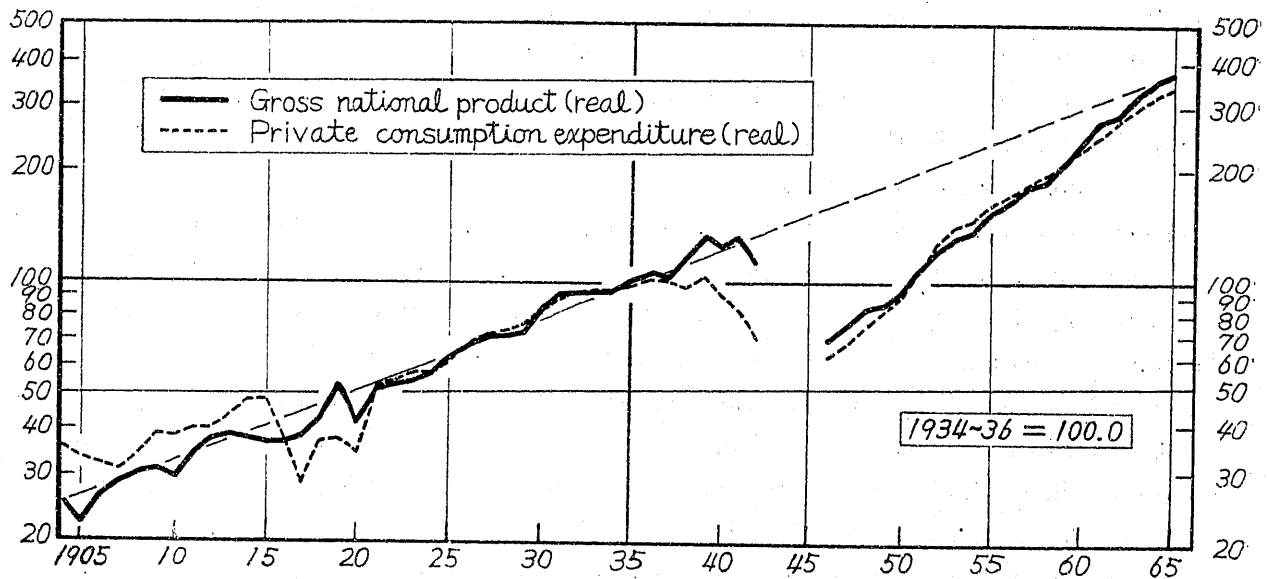
The violent population migration is causing various social difficulties as widely known, but it may be worthy mentioning that the large-scale population redistribution formerly enforced by the national authority is now progressing as economic necessity and corresponding voluntary adjustment on the part of each individual. While it is a fact that the need of speedy capital accumulation is holding the ratio of private consumption expenditure in gross national product at the level of war times, it must be noted that the real consumption level, on the contrary to war times, is following smooth progress. The deadlock faced by Japan for which the war was the only alternative for relief could finally succeed in the constitutional rehabilitation after paying the enormous price of defeat and helped in restoring the growing capacity. As the deadlock of pre-war Japan can be summed as the struggle of over-population, the constitutional rehabilitation of post-war Japan should naturally be regarded as structural change of post-war population. The afore-mentioned birth rate decline is a part of such expression. The structural change of population is not only a result of structural evolution of national economy and people's living, but serves as a basic factor to stabilize the outcome and to accelerate its further progress. The analysis of the structural change of population became indispensable for reconfirmation and reevaluation of the national economy and the expected ways of people's life. The importance of population problems today is as great as that in late 1920's when the establishment of the Institute was keenly called for.

External phenomena, on the other hand, show a very different picture. Although labour shortage took the place of voluminous unemployment and the worries of overheating in business conditions replaced the former business recession, it remains the same in the fact that the change in the demand-supply relation of labour force presents difficulties peculiar in transitional period to national economy and living.

2. Change of Post-War Population and Its Problems

The rapid post-war economic growth in real terms at the average annual rate of around 10% is a record to be proud of, but pre-war Japan was also proceeding with considerably rapid growth. The increase of gross national product during the period from the beginning of this century to the outbreak of the Second World War is estimated to have been around 4.5% in real terms in average, and if this growth rate is assumed to have continued the trend undisturbed by the war, the present gross national income should have

Pre-War and Post-War Economic Growth : 1905-1965



(note) Pre-war GNP's are taken from Okawa-estimates of productive national income and deflators are also from his estimates of general commodity price index. 1933-37 are standard index. Pre-war private consumption expenditure is by Yamada-estimates. Deflators up to 1927 are from the above Okawa-estimates of general commodity price index and for later years by living-cost index linking Ueda-index, Asahi-index and Morita-index of living-costs. 1934-36 are the standard. Post-war figures are taken from the fiscal-year estimates by the Economic Planning Agency. 1934-36 are the standard.

reached the level of about 3.5 times as high as that of pre-war times (1934-1936). As the Chart shows, the post-war rapid growth has only recently succeeded in the restoration of the pre-war trend line of gross national product. This by no means takes the post-war rapid growth lightly. If the severe sacrifice by the defeat in the war was the fate to be born to break through the deadlock of pre-war Japan as previously referred, it may be understood in such a way that the post-war rapid growth was not simply supported by the reconstructive demand but owed more heavily rather to the democratic renovation of the economic structure itself. Population trend also achieved corresponding changes.

One of the most extinguishable signs was the transformation in vital statistics from the pre-war high birth and high death rates to the typical low birth and low death rates. In pre-war period under the background of social change due to the First World War, both birth rate and death rate were starting to show modern declining trend. As the mobilization of national economy started to proceed some years before the Second World War, however, declining movement of death rate apparently turned to be stagnant. The post-war decline in birth rate not only reproduced the pre-war trend but was more thorough-going in establishing what might be called the "two-children system" on the national level. The nation-wide dissemination of the idea of family planning in post-war years was obviously the driving-force of this change, but further in the background, there was

a rise of democratic ideology to recognize the supreme right of the pursuit of life and happiness of an individual. The post-war destitution and the desire and efforts to break it through increasingly promoted the systematization of low birth and death rates under the smooth development in national economy. It was no doubt the change which could appropriately termed as the modernization of vital statistics.

These changes so far have been characterized by more or less one-sided effect of rapid decline in death rate resulting in the sudden increase of the productive-age population upto such a level exceeding that of pre-war days. It was also in conformity with the increasing demand of labour force under the rapid economic growth. However, after the peak of this and the next years, the supply of newly graduating labour force will change into considerably rapid decreasing trend. The rate of increase of labour force population will be gradually slowed down on one hand and the average age of the working force will gradually rise on the other. As previously mentioned, the shortage of young-age labour force is already being complained. There may be the way to regard this change as the pessimistic factor for the future economic growth, but it may be no ample reasoning, on the other hand, that economic growth may always be dependent on relatively cheap, young and unskilled labour force. The post-war shift into low birth and death rates should have been the national protest against such pre-war system. After the lapse of over twenty years since the end of the war, this post-war system is now ripe and reached the stage to be able to effectively control the way how the national economy ought to be.

In connection with birth rate, it is apprehended that such low birth rate of today where net reproduction rate is below unity may have been excessively lowered in the sense that the present rate may make even the simple reproduction of labour force population difficult in the future. However, in the period when the intensive capital formation is required in its national economic policy, considerable oppression of people's consumption life not only is inevitable but should be willingly tolerated. As mentioned before, the post-war rapid economic growth has just barely restored the pre-war growth trend line. It should now be the immediate concern of the nation or the people how the various distortions risen from the high-speed growth can be corrected through the intensive improvement in the structure of people's life itself, and the future trend of fertility also depends on the success in the solution of this problem. Here again is an important demographic demand to the national economy. People demand the security of life in which a third child can be born warrantedly and the growth of national economy to capacitate it.

Among the various changes in post-war population, another particular point to be mentioned is the population migration abnormally activated both regionally and socially. In those days immediately after the end of the war, agricultural areas not only accommodated voluminous number of evacuees from cities during the war-time, but were suffering from under-employed congestion of second and third sons of the farmers, but the number of the engaged in agriculture and forestry fell below the pre-war level in 1960

and the following decrease has been as rapid as nearly 4 % annually and is on further acceleration. The number of those engaged outside of agriculture and forestry expanded in 1955-60 to the size assumed to have been reached by the continuation of prewar increase rate of nearly 2.0% annually, and in recent years it continues the increase in the pace of the annual rate at nearly 4 %. It is understood that such changes rendered the trend of sudden population concentration in large cities and thus originated problems inherent to excessive urban concentration of population. It should not be overlooked at the same that the decrease in agricultural labour force is effecting progressive ageing and female participation in agricultural workforces.

Population migration replaces the labour force from relatively low productivity sector to higher productivity sector and contributes to the elevation of national economic efficiency of the total labour force. It is also extremely favourable in the sense that the movement promotes the structural improvement in low productivity sector which has long suffered from relatively excessive labour force. However, the present situation of excessive population concentration in large cities on one hand and the weakening of agricultural population on the other can not simply be concluded as the disturbance of a transitional period. Because there is not sufficient preparation of prospective blue prints for the future as yet to conclude the present conditions being those of a transitional period. In this case again, the key determinants of the national economy lie in the trends of population and labour force and their socially stable redistribution and reproduction. Today we came into the final conclusive stage of post-war population problems, and now we have to stabilize the dramatic changes of post-war population in a most appropriate way. It is the national responsibility to determine in what a design the reproduction and reproductive structure of the future Japanese population should be stabilized within the limit of possibility and the highest desirability both from the demographic viewpoints and those of national economy.

3. The Object of the Present Edition

The Institute of Population Problems published its first number of the Journal of Population Problems in April of 1940. Now when we face with an important turning point of the post-war population problems, we are publishing the 100th Journal. In commemorating the 100th publication of the Journal, we consider it being most timely to summarize the results of our studies so far made and give overall perspective of the present population and its problems. However, the policy issues that we have to tuckle with as population problems are, as partly mentioned before, not only extremely diversified and complicated, but require multidimensional interdisciplinary examination to obtain the final conclusion. We are compelled at the present work to limit ourselves to totally demographic analysis of the present status of our population and to suggesting the existing problems through facts themselves, only keeping the scope of such general issue in our view.

The construction and editorial work of this research project was conducted by The

Editorial Committee. The members of this committee are listed on the cover.

One person has been appointed for each Chapter of the present Journal to be responsible for the writings, and several commenters have been assigned for each Chapter to give sufficient caution against doubtful or mistaken interpretation of each theme. This memorial issue is divided into two Parts as edited in Nos. 100 and 101 of the Journal. Part One includes Chapters I - III and Part Two Chapters IV - VI.

In the final stage of editing of this Journal, the Director of the Institute, Dr. Minoru Tachi, was taken ill to require certain periods of absolute rest, and the Preface and some parts in Chapters originally planned to be written by him had to be regrettably taken over by other members of the Institute. This Preface is also such emergent vicarious writing.

(Tatsuo HONDA)

Summary

(PART ONE & TWO - Chapters I-VI)

PART ONE

Chapter I. Structure and Dynamics of the Population

Population growth, as a macro-dynamic equilibrium of fertility and mortality, may be the most inclusive one of demographic changes. Then, in Section 1, the changes of population trends, focussing the drastic post-war changes, are observed. In Japan, a sign of demographic revolution was already seen around in 1920 when her "economic take-off" was coming to a settling point, and after the end of World War II, the revolution developed in such an extreme speed as what we do not see a similar example in other countries in any period of history.

Following the high growth rate in 1945-50 due to baby boom, repatriation and demobilization, the sharp decrease in fertility since 1950 induced the lowering of the rate of population increase and the rate is observed today to be about one percent per annum.

In Section 2, the changes in population structure by sex and age, which is fundamentally affected by the trend of fertility and mortality, are reviewed. The progress of rapid demographic revolution in the post-war period has brought about equally noticeable changes in the age structure of population. While the proportion of population under 15 years of age was reduced, the proportion of the population in productive ages, 15-64 years, expanded considerably and that of 65 years and over rose at a fast rate. Thus, the dependency burden of productive-age population in Japan is very low compared with developing countries and developed countries in the world.

In Section 3, the interrelationships between age structure and reproduction in terms of the stable population and stationary population are analyzed. In the prewar days, the age structures of the actual population and stable population were much alike to each other. As the result of drastic decline in fertility in the postwar period, the ageing of the stable population started at an increasing tempo, and the difference of age structure between the stable and actual population enlarged. The reason why the ageing of the actual population is delayed compared with that of the stable population may be explained by the effect of the age structure, as "inertia", which is influenced by the past demographic changes. If the present vital trends continue, it is envisaged that the population of Japan still increasing may change into a decreasing one within a generation's time.

In Section 4, the results of the latest projections of Japanese population which were prepared by "component" method, with the use of estimated future age-specific survival rates and fertility rates, are examined. The total population will exceed 100 millions in about the decade through 1965-1975. While the population under the age of 15 years is anticipated to decline in its absolute and relative size, the population in productive ages is expected to increase, reducing the annual increase in the size, and the increase in the aged population will be accelerated.

Projections of labour force population made by applying the assumed labour force participation rates to the estimated population by five year age groups, indicate that the supply of young labour force will decrease and the proportion of middle and older ages in labour force will increase.

In the last Section 5, change of households based on census data and some implications of the results of household projections are considered.

The average size of household had for a long time been stable, numbering 5 persons per household. However, in the 1960 Census, the average household size declined for the first time to substantially below 5, that is 4.52, and it further lowered down to 4.08 in the 1965 Census. According to the household projections calculated by sex, age and marital status with sex-age and marital-status specific household headship rates, the future household size will continue to decline into 3.4 in 1980 and 3.1 in 1990.

Factors influencing this course of decline seem to be (a) the rapid decline in fertility, (b) the breakdown of multigenerational families into nuclear type of families, and (c) an enormous scale of migration of young people into metropolitan area.

As considered above, with the present transitional state of economic structure and social institution, the rapid change in the age distribution of population anticipated in the near future should much influence the supply of manpower and no doubt exert a tremendous effect on the future economic and social development of Japan.

(Masao UEDA)

Chapter II. Fertility

Trends in fertility have come to be a key factor among those determining population growth, because mortality has been stabilized greatly. Fertility rates in Japan have shown drastic decline since the end of the war, which has never been experienced before anywhere in the world. While Japan has experienced demographic transition in great hurry, recent trend in fertility seems to be in delicate situation of showing slightly rising sign.

Section 1 here attempted to make demographic analysis of dramatic decline in fertility and recent trend.

Section 2 made observations on differential fertility by socio-economic indices, which could lead to factor finding.

Section 3 was devoted to studies on how age structure by sex and marital status structure representing cross-sectional aspect of marriage contributed to the past decline in fertility. These demographic factors are considered to be background elements affecting fertility.

Section 4 tried to find out the extent which socio-economic factors affected fertility under the demographic situation stated in Section 3. The study on the relationship between socio-economic factors and fertility is also essential for making projection of future fertility as an element of future estimation of population.

Final Section made a summary review of works on measurement of effects of family planning practice on fertility decline which had been conducted by the Institute and concluded that family planning had been increasingly given more importance in the demographic studies in Japan. To make elaborate analysis on the relationship between fertility and family planning in close association with socio-economic factors will attract more and more attention, and perhaps highest priority will be expected to be accorded to the study in the coming decade.

(Shigemi KONO)

Chapter III. Mortality

This Chapter deals with the trends and the characteristics of mortality in Japan with special reference to those of the postwar period. The Chapter consists of the following four Sections: 1. Trend of mortality, 2. Mortality in life tables, 3. Causes of death, and 4. Regional and social differentials in mortality.

In Section 1, the features of mortality decline in the course of modernization of Japan are analyzed by making use of crude, standardized, and age-specific death rates as statistical indicators. There has been doubt about the existence of mortality decline in the period prior to 1920 for which we have less reliable vital statistics, but a recent estima-

tion suggests that there was already a slow decline of mortality from around 31 to 22 per 1,000 in the crude death rate figures in that period of about half a century since 1870's. Definite decline is observed in the period since 1920, and the postwar years promoted a remarkable improvement of mortality for which analyses are made with regard to changes in the age-sex-specific death rate and in the structure of major causes of death.

In Section 2 the life tables so far constructed in Japan since Meiji Era are briefly outlined, and discussions are made on secular changes in life table mortality and expectation of life. Reference is also made to peculiar features of life table figures of Japan, especially to the patterns of mortality curve.

Section 3 deals with changes in the structure of causes of death accompanied by the decline of mortality in these decades and refers also to some peculiarity of the structure in the international situation.

Regional and social differentials in mortality are discussed in the final Section. There have been many works especially on regional differences in mortality of Japan and their findings are outlined. With regard to the social aspect, reference is made to differential mortality between various occupational groups and income classes.

(Kazumasa KOBAYASHI)

PART TWO

Chapter IV. Internal Migration

Following the analysis on essential reproduction factors of population in previous two Chapters, Chapter IV is devoted to the analysis on internal migration. Primary objects of this Chapter are (1) to make factor analysis of internal migration and clarify demographic effects of internal migration, (2) to make analysis on inter-industrial mobility of working force especially between agriculture and non-agricultural industries, taking into account the remarkable magnitude of migration, and (3) finally to make a study on prospective trends of migration factors and suggest significance and desirable directions of migration research.

Section 1 tried to characterize the second decade of twenty years after the war, 1945-1965, by drastic phase of regional reorganization of population distribution caused by heavy migratory movement. Postwar characteristics of internal migration are examined from the viewpoints of migration volume, regional pattern of migration, migration type (family or alone), and reasons of moving.

Section 2 made a comparative study on factors affecting the migration of agricultural population in pre- and post-war years. Drastic decrease of agricultural population after the war was caused by modernization process of agricultural sector and also remarkable

growth in non-agricultural industries. Furthermore, internal difficulties of agriculture promoted not only population exodus, but also shifting from farming to seasonal employment, non-agricultural pursuits without changing residences, and day labourers.

Section 3 pointed out different features by making comparative study of mobility among industries in pre- and post-war periods. The fact that the increase rates of working force among big scale industries and middle-small size industries have varied according to secondary and tertiary industries was also found.

Section 4 made a study on demographic effects of internal migration from three angles of population increase, demographic basic structure and fertility. Particularly, statistical measurement of effects of internal migration on increasing number of births in great urban prefectures (Tokyo, Osaka and Kanagawa) and on decreasing number of births in agricultural prefectures was made.

Final Section attempted to evaluate prospective trends of factors affecting internal migration, suggesting new dimension of migratory movements.

(Toshio KURODA)

Chapter V. Regional Distribution of Population

Study of regional distribution and changes in population is one of the most useful means to population analysis, because population distribution reflects some of the essential characteristics in population dynamics. Moreover, regional pattern of population distribution has come to one of the basic factors in population problems in Japan.

From this point of view, Section 1 tried to characterize the present situation of regional concentration of population and distribution of working population.

Section 2 made a comparative observation on dynamics and composition of population as divided into two regional districts of Northeastern and Southwestern Japan.

Section 3 was devoted to find out some delimitations of Megalopolitan region on several alternative criteria and to make a comparative description on them.

Section 4 summarized the results of a projection on future population by prefecture conducted by us and made some comments.

(Hidehiko HAMA)

Chapter VI. Population Reproductivity

Reproductivity of a population is a comprehensive expression of influences of various demographic factors which dominated and are dominating in the population under consideration. In addition to it, reproductivity of a population is understood as a reflexion of

conditions of national life which the population experiences.

From this point of view, in this Chapter, a generalized explanation of demographic change and demographic structure of the population of Japan is presented, on the basis of the results which have been developed in the preceding Chapters, and at the same time several important points of current national life which appear in demographic phases are pointed out.

This Chapter is divided into four Sections. In Section 1 titled "Summary review of reproductivity of population," the general view and the basic consideration on the interrelationship between historical changes of demographic factors and economic development are presented, and especially the significance of decline of death rate for modernization of population process is emphasized. The point is that decline of death rate was the very factor which made decline of birth rate possible. Also points that decline of death rate contributes to supporting reproductivity of population and that birth rate declined rapidly after the war to reach very low level at present, reflecting some defects in national life, are introduced.

In Section 2 "Reproductivity of rural population", historical trends of vital rates in rural areas are followed up and economic and social implications are considered. And influences of migration from rural areas on vital rates of those areas are analysed. An important fact that decline of birth rate in rural areas, accelerated by the influence of migration, induces reproductivity of rural population to pull down is pointed out.

In Section 3, "Reproductivity of urban population", the process of demographic transition in urban areas is described and the facts that rate of population increase in urban areas is higher than that in rural areas and that share of population increase is rising in spite of low level of reproduction rate, are pointed out.

In Section 4 "Prospect of future reproductivity of the population of Japan", starting from re-examination of current level of reproductivity and considering the future population and labour force estimates which are prepared by our Institute, economic and social implications of future trend of the population of Japan are investigated.

(Yoichi OKAZAKI)