

National Perspectives on the Development of Demography

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Introduction :

Demography or the study of population is aptly defined as "the study of the size, territorial distribution, and composition of population, changes therein, and the components of such changes, which may be identified as natality, mortality, territorial movement (migration) and social mobility (change of status)"(1). "Population" here refers explicitly to an aggregate of human beings.

The study of population may be conceived in a narrow sense as "demographic analysis", the study of population variations, change and their components. Demography may also be regarded in a broad sense as "Population Studies", which apart from demographic analysis also includes the study of relationships between population variations and change and other variables for example, social, economic and biological. Demographic analysis forms the core of the study of population which in the course of evolution takes on the interdisciplinary character of population studies.

This paper traces the past development of demography in Sri Lanka, sketches the impact of demography in relation to the present, and briefly outlines the perspectives on the development of demography as a science in the country.

Historical Development of Demography in Sri Lanka

In Sri Lanka, Demography made its beginnings as an area of empirical research in the nineteenth century when emphasis was laid on the collection, organization and publication of population statistics. Until then several population estimates had been made by the Dutch and the British rulers, with uncertain degrees of reliability (2).

(1) P. M. Hauser and O. D. Duncan (eds.): (1959) *The study of Population* The University of Chicago Press,

(2) Population enumerations were carried out in 1789 by the Dutch rulers, and in 1814, 1821 and 1827 by the British.

The passing of the Census Ordinance (Ordinance number 5 of 1869) laid the foundation to the systematic and scientific study of population (3). The first census proper was taken in 1871, and since then, census taking became a regular operation at 10 year intervals until 1931. The last census of the colonial era was held in 1946.

The first census after independence was carried out in 1953. Subsequent censuses followed in 1963, 1971 and 1981. Information relating to basic demographic characteristics such as age, sex, principal occupation, religion and ethnicity was collected regularly in all these censuses(4). In order to obtain more reliable data a question on the date of birth was introduced in 1963. Information on marital status, literacy in any language and occupational status were collected in all the censuses after independence. While information on place of birth also figures in all the censuses, place of previous residence and duration of stay at usual residence were introduced only in 1971, from a sample of the households. Details collected on nuptiality and fertility have varied from census to census. Date of marriage in the census of 1953 was replaced by age at and duration of marriage in the censuses of 1971 and 1981. Questions on the number of children living and the date of the last live birth within the past five years were introduced in 1971. Questions on distance from usual residence to place of work or school, mode of travel, and physical disability replaced those on fertility in the 1981 census. Omission of questions on fertility may be justified on the grounds that detailed information on fertility levels and trends was collected in the fertility survey held in 1975.

Reliability of census data has improved considerably over the years. Digital preference has diminished and age accuracy has increased between 1953 and 1971. Coverage errors have also diminished during this period. For example, coverage in the enumeration of male children under five years has improved from 89% in 1953 to 94.5 in 1971(5). For the country as a whole, the extent of

(3) A number of amendments have since been made to the Ordinance.

(4) The section on the development of census and vital registration system draws heavily from T. Nadarajah (1976): Sources of Demographic Data, Population of Sri Lanka, Country Monograph Series No. 4, ESCAP, Bangkok, pp. 354-375.

(5) T. Nadarajah (1976). Evaluation of Quality of Demographic Data, Population of Sri Lanka, Country Monograph Series No. 4, ESCAP, Bangkok, pp. 376-389.

under-enumeration at the 1981 census is provisionally estimated as 0.9% (6). Census tabulations have grown in content and detail. For example in 1971 the population of ever-married females between ages 15 and 49 were tabulated for the first time by age and number of surviving children, and the population distribution by literacy, age and sex is now tabulated separately for urban, rural areas. Census reports are published regularly with increasing utility values for population analysts

Registration of vital events became a legal requirement when the Registrar General's Department was charged with the collection and compilation of vital statistics under the provisions of Ordinance No. 18 of 1867. The decision in 1887 to enforce legal compulsion on parents and guardians to register births followed by Ordinance No. 1 and Ordinance No. 2 of 1895 which came into force in 1897 resulted in a marked improvement in the extent of completeness and procedure of registration. Adoption of recommendations made at the seminar on Civil Registration and Vital Statistics for Asia and the Far East (1968) was a landmark in the development of the civil registration system.

All information recommended as basic by international standards is currently recorded on the original registration entry. However, not all this information appears in the statistical returns that are sent to the Registrar General for compilation and as a consequence tabulations are made on a subset of the recommended basic data. Births and deaths which were earlier tabulated by date of registration and not by date of occurrence, and as such were of limited value to the population analyst, are currently being tabulated by the date of occurrence. Coverage of civil registration has improved over the years in response to legislative compulsion and in 1967 the degree of completeness was estimated as 98.7% for births and 92.3% for deaths (7). The tabulated information was published in the **Annual Report of the Registrar-General on Vital Statistics** until 1967, after which its publication was suspended due to administrative difficulties. It is now proposed to resume yearly publication of the Report.

In order to supplement the information collected by civil registration and census taking several sample surveys have been carried out since independence. They fall into four categories:

(6) Personal communication from the Department of Census and Statistics, Results of the latest post-enumeration survey are yet unpublished.

(7) Op. Cit. in footnote (5), pp. 378-379.

labour force surveys (1959/60, 1964, 1968-69, 1973) consumer finance surveys (1953, 1963, 1973), socio-economic surveys (1962, 70, 1980) (8) and fertility, family planning surveys (1975, 1980, 1981). Though the first three categories of surveys were not intended primarily for the collection of demographic data they were instrumental in gathering valuable information on population characteristics.

In Sri Lanka, the contribution to demographic research during the first three decades of the twentieth century was largely confined to the description of population characteristics based on vital statistics and census data. In the years that followed until the middle of the century, there was a gradual shift of emphasis to mortality and immigration, prompted by the malaria epidemic and the large influx of Indian labour. In the 1950's, dynamics of population growth in the country became the focus of attention, and continues to attract the interest of many demographers. Principles of measurement and formal analysis of mortality and fertility began to be applied and demography, centered on vital statistics and census data, acquired greater breadth. During the last three decades family planning became increasingly important in the country's efforts to curtail population growth, and caused considerable research efforts to be diverted in this direction. Meanwhile, descriptive studies of the population based on data from censuses, civil registers and other sources became more comprehensive, specific and analytical.

Large variations in the population sizes and trends within and among other nations under different conditions has aroused recent interest in the relation of population trends to social and economic conditions in the country. Investigations are being carried out on the complex of interacting elements in population changes and their influences on other processes. The concept of "Population and Development" is now adding a new dimension to the scope of demography in the country.

Demography has begun to receive explicit recognition in the echelons of higher education. In 1973 the United Nations Fund for Population Activities, UNFPA, with the collaboration of the University of Colombo (formerly, University of Sri Lanka, Colombo Campus) set up a Demographic Training and Research Unit, within the University. This Unit conducts a training programme

(8) The survey held in 1980 was a combined labour and socio-economic survey.

in population studies leading to a postgraduate diploma, with the objective of producing a nucleus of competent personnel in and outside the University who would undertake demographic teaching and research. Courses on demography are incorporated also in the curricula of the Doctor of Medicine in Public Health, Master of Science in Town and Country Planning, and Diploma in Urban Development Programmes. At the undergraduate level demography is taught largely as a subsidiary topic in the universities of Colombo, Jaffna, Kelaniya, Peradeniya and Sri Jayawardenepura. In all these, one or more of the Departments of Sociology, Economics and Geography have introduced into their curricula aspects of demography that are relevant to the respective discipline.

Apart from the Demographic Training and Research Unit, the principal institutions currently engaged in population research are the Department of Census and Statistics, the Economic Research Department, Central Bank and the Marga Institute. Together, the research institutions have made major contributions to the development of demography in the country⁽⁹⁾.

Impact of Demography in Relation to the Present

At present the impact of population studies on Sri Lanka is perhaps most conspicuously manifested in the area of family planning. Information on the magnitude and direction of population growth has alerted the national policy makers to incorporate several strategies for effective arrest of the birth rate. The Government is committed to creating an awareness among the people of the population problem and to providing an extensive network of contraceptive services and supplies.

By 1971 two-thirds of the country's population were concentrated in the south western and central parts of the country which comprise only 23 percent of the total land area. Moreover, at that time three-fourths of the population were living in rural areas, with a steady flow of migrants from these to the urban area. There is evidence that there was also a steady stream of migrants to the rural hinter land of the country consequent to the sustained investment in peasant agriculture by the Government⁽¹⁰⁾. Spatial planning is essential to disperse population

(9) K. A. P. Siddhasena, (1981), *The Demography of Sri Lanka, Bibliography*, University of Colombo.

(10) D. Abeysekera (1981), *Regional Patterns of Intercensal and Lifetime Migration in Sri Lanka. Papers of the East-West Population Institute*. No. 75.

concentrations regionally and between urban, rural areas in such a way as to facilitate the optimum use of resources. Recognition of this need by the Government is reflected in the various population re-distribution programmes implemented in the past and present. The most important current re-settlement programme is the Accelerated Mahaweli Development Scheme. It involves the re-settlement of about 140,000 families or about 7 percent of the population in the Mahaweli region. In the long run, development depends on the population factor, not only on its size, but also on the composition and growth. The young age structure of the new settlers and of the labour drawn into the area carries the potential for high fertility and has led the UNFPA to emphasize the need for a systematic study of the demographic implications of the Mahaweli Project (11).

Statistics on morbidity and mortality reveal that substantial differences continue to exist between geographical areas and between socio-economic groups of the population. The very low status of health in the estate sector led to the launching of the Estate Family Health Project in 1973. Probably as a consequence of improved access to health care and improvements in sanitation and water supply, the birth rate showed an upward trend from 2.85 in 1973 to 3.51 in 1977(12). A continuation of the upward trend could be counter-balanced with enhanced family planning information and services.

The main health problems facing the country continue to be environmental sanitation and communicable diseases. Cause specific infant and child morbidity and mortality statistics have pointed to the demand for better primary health care, clean water and adequate sanitation facilities. Programmes implemented to meet these needs have resulted and continue to result in a reduction of infant and child mortality.

The increasing trend in the exodus of Sri Lankan manpower is undoubtedly beneficial in terms of foreign exchange earnings and reduction of unemployment. Possibly as a consequence of enhanced economic standing and the provision of dowries the

(11) UNFPA, Report of Mission on Needs Assessment for Population Assistance Report No. 36, p. 21.

(12) Department of Census and Statistics, (1979), Bulletin of Vital Statistics, p. 35.

number of marriages has tended to increase in recent years⁽¹³⁾. Apart from creating a greater demand for housing and other utilities more marriages could retard or even reverse the downward trend in fertility which is attributed to continuing postponement of marriage. The short term and long term demographic impact of this outmigration and its consequences for national development efforts have already been identified as important areas of study by the UNFPA⁽¹⁴⁾.

The foregoing is by no means an exhaustive presentation of the relevance and impact of population studies in relation to the present but constitutes a cross-sectional view of major issues worthy of consideration.

Perspectives of Future Developmen

Like any other scientific discipline in the course of development, demography should develop along several levels of exposition and interpretation: as valid observation, as substantive interpretation, as logical technical analysis, and as scientific theory. In the absence of a population register, demography in Sri Lanka is dependent for its data primarily on the census and the vital registration system. Interpersonal communication and techniques of data collection are very important in the generation of valid data in a census or survey. Regular review and development of these two factors is necessary to ensure the maintenance of high quality data with complete coverage. In order to improve predictability and explanation, it will be necessary also to widen the spectrum of information. Many gaps exist in both sources of national demographic data. A greater effort to identify and fill them and to communicate the demographer's needs to the data collecting authorities will lead to significant improvement in valid observation.

Any discipline dependent on observational data needs to evaluate the data, and at one time or another to adjust and estimate imperfect data. From the standpoint of evaluation, adjustment and estimation demography will gain credibility with the use of improved techniques for adjustment and estimation; with definitive evaluations of sampling and non-sampling error, and their inclusion in reports.

(13) Department of Census and Statistics, 1979), **Bulletin of Vital Statistics**, p. 13.

(14) UNFPA: **Needs Assessment for Population Assistance** op. cit., p. 20.

Most demographic analyses in Sri Lanka hereto have been at the macro-level. Large-scale explanations by themselves provide inadequate explanations of changes in behaviour; they must be related to changes in individual motivation and attitudes. For example it is not simply mass communication and free availability of contraceptives, but the decision on the part of couples to use contraceptives which operates to limit the size of families. Micro-level studies are required to understand more fully many of the national population problems. A new level of interpretation and analysis of published and unpublished data is needed to uplift the status of demographic research in the country. From the perspective of a developing science, little is gained by repetitive exercises except when they lead to new analytical methods or afford some new insight into inter-relations between population and other related factors.

Although, ideally, population research should be integrated much more closely with the collection of data, the volume of data already available and being continuously collected is too large for the Departments of Census and Statistics and of Civil Registration to handle. Wider availability of data to research institutions, universities and organisations for analysis will be contributory to the development of demographic research. In the short run a comprehensive, annotated inventory of published and unpublished data prepared by the Department of Census and Statistics will be immensely useful to researchers, and in the long run cumulate into an updated bibliography of national population data and sources.

The growth of demography as a discipline in Sri Lanka was slow largely because of a lack of academic leadership. Development of skilled demographers is an immediate national need. In our universities, demography has been supported within the Faculty of Arts, and at undergraduate level, particularly within the disciplines of sociology, geography and economics. The need for background mathematics and statistics is much less for these fields than for demography. A major problem of many students from these fields is that their knowledge of the English language and training in quantitative aspects are often insufficient to prepare them for graduate work in demography. While the introduction of compulsory basic mathematics and statistics courses to the conventionally non-quantitative curricula remains a controversial matter, the provision of sound training in English is recognised as essential. Fluency in English would overcome a major handicap of the students of population because English is the most widely used language in demographic literature.

In the context of the development of demography as a discipline the Demographic Training and Research Unit, DTRU, University of Colombo is worthy of special mention. It is the only establishment affiliated to a University in the country to fulfill unmet needs in teaching and research in demography, and has a major role to play in the development of demography. Apart from its present involvement with undergraduate and post-graduate training the Unit could plan for the inclusion of demography as a specialised discipline within the Faculty of Arts. Moreover, it would also be possible for the DTRU to provide inputs on theoretical aspects of demography and statistical applications in population analysis for the students of statistics. When the Unit regains its full strength of well-trained demographers it would be possible for the Unit to be engaged in systematic studies of population problems which require consideration in policy formulation. Through fundamental and applied research, the Unit would be able to fill the many gaps that still exist in the knowledge of various aspects of population in the country and their relationship to socio-economic, biological and environmental conditions. In the near future the Demographic Training and Research Unit may also be in a position to supervise and provide expertise to current research projects and serve in an advisory capacity on population issues.

Demography as a discipline has wide scope to develop beyond the realm of formal demography. Biological, social and economic factors are relevant to the understanding of population changes and to be significant, demography should be interdisciplinary. Demographic research should not always be undertaken by demographers in isolation; in many instances the outcome of collaborative effort with researchers in other fields may prove more fruitful. In Sri Lanka, we are yet to achieve the co-operation or the organisational set up required to engage the interests of researchers from various disciplines in collaborative research into population problems. Recognition of the inter-disciplinary character of population studies will be a land mark in the development of demography as a discipline.

Isolation of scholars interested in population is a hindrance to the development of demography. Even at present it should be possible to form a professional organization of the students of population, which will add momentum to the progress of demography. Its advancement in the country will no doubt receive an impetus in the establishment of a conventional journal. Such a

journal will provide a common forum of discussion among the students of population who will be increasingly drawn from a variety of disciplines.

Allocation of resources to facilitate demographic study and creation of a demand for professional demographers in the job market are significant determinants of the pace at which demography will develop in the country. As a pre-requisite it is perhaps necessary to dispel misunderstanding of the nature of demography: far too many people still confuse the scientific study of population with the spread of propaganda for family planning.

The future of demography as a discipline depends to a large extent on the few professional demographers in the country. Apart from dissemination of knowledge, their primary function should be the objective analysis of population phenomena in the biological and socio-economic context which will serve not only to develop demography as a science, but also to find solutions to contemporary problems and formulate realistic public policies.

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