ColomboArts
Journal of Social Sciences and Humanities
Volume 8 | Issue I 2023
ISSN 2536-894X
9 772536 894002

Demography as a Social Science Discipline

K. A. P. Siddhisena
Emeritus Professor, University of Colombo, Sri Lanka
kapsiddhisena@gmail.com

Professor Padmasiri Siddhisena (Emeritus Professor of Demography) is one of the pioneers in the field of Demography in Sri Lanka. He was the Founder Head of the Department of Demography, University of Colombo. He has served as the Director of the Demographic Training and Research Unit and the Director of Colombo University Community Extension Centre. He holds a B.A. and a B.Phil. (Hons.) in Economics from the University of Colombo, a Postgraduate Diploma in Applied Social Statistics from the Sri Jayewardenepura University, an M.A. (Demography) from the Australian National University, and a M.Sc. and a Ph.D. (Population Planning) from the University of Michigan. He has served as the Founder Secretary and the President of the Population Association of Sri Lanka and the Editor of the Sri Lanka Journal of Population Studies. He is a member of the Executive Council and a member of the Research and Development Committee of the Institute of Applied Statistics Sri Lanka (IASSL). He has served as a member of the Standing Committee of Humanities and Social Sciences at the University Grants Commission (UGC) since 2000. His teaching and research spread over a broad range of topics, including Population and Development, Migration and Urbanization, Ageing and Elderly Care, Fertility and Mortality Analysis, Population and Health, and Research Methodology and Data Analysis. He was a Consultant of the UNFPA and UNDP to improve the census data in Bangladesh, Timor Leste, and Myanmar. He has contributed as a Consultant in several research projects of the UNDP, UNFPA, ILO, UN-ESCAP, World Bank, IOM, and WHO. He has authored and co-authored more than 90 articles published in local and international referred journals, and has published 7 books. Professor Siddhisena also served as a Visiting Professor at the University of Sheffield, UK; University of Ryukoku, Kyoto Japan; University of Oxford; and the University of Cambridge, UK; and as a Visiting Senior Fellow of the Royal Society, London, ESCAP, and UNFPA in Bangkok. He rendered his expertise in the formulation of the National Policy on Population and Reproductive Health in Sri Lanka in 1998.

Recommended Citation
Siddhisena, K. A. P. (2023). Demography as a social science discipline. *ColomboArts Journal of Social Sciences and Humanities*, *8*(I), 1-16.
Available at: https://colomboarts.cmb.ac.lk/?p=659

ColomboArts
Journal of Social Sciences and Humanities

Demography as a Social Science Discipline

Siddhisena, K. A. P.
Emeritus Professor, University of Colombo, Sri Lanka
kapsiddhisena@gmail.com

Abstract

Demography is a pivotal discipline in the Social Sciences to understand the size, growth and composition of population, and population dynamics of fertility, mortality, and migration which affect the socio-economic development and wellbeing of the people in a country. Demography and Population Studies are closely associated disciplines which are rooted in and have sprawled across the field of Social Sciences to understand the broad spectrum of the Demographic discipline. Demography is also considered a multidisciplinary and interdisciplinary field and therefore it is a lucrative discipline not only as a Social Science discipline but also as a discipline that has progressed into other fields in Natural Sciences, Medicine, Health Sciences, and Public Health. Demography is related to other disciplines in the Social Sciences such as Anthropology, Economics, Geography, History, Sociology, Political Science, and Psychology. With the establishment of the Demographic Training and Research Unit (DTRU), Demography as a Social Science discipline was established within the Faculty of Arts, University of Colombo in 1973 to initiate teaching, training, and research in the fields of Demography and Population Studies. In 1997, the DTRU was upgraded as a full-fledged department to expand its training and research programmes. Demography has become an applied discipline in several other Universities in Sri Lanka as well. At present, Demography is being accepted by academicians, planners, policymakers, and by administrators as an important discipline in the Social Sciences.

***Keywords**: Demography, Multidisciplinary, Population, Social Sciences*

1. Introduction

Different disciplines in the Social Sciences enhance the diverse fields and the scope of higher education which leads to socio-economic and human development in a country. In this context, Demography is a pivotal discipline in the Social Sciences that facilitates understanding of the size, growth, and composition of population, and population dynamics of fertility, mortality, and migration which directly or indirectly affect the socio-economic development in a country. The broad field of 'Population Studies', which entails demographic factors as well as non-demographic factors, and Demography are closely associated disciplines in the Social Sciences. Demography is rooted in and has sprawled across the field of Social Sciences to enrich the understanding of various characteristics of population and their impacts on the socio-economic aspects, health, and wellbeing of the people. Since Demographers seek to understand population dynamics by investigating human reproduction or fertility, migration and mortality, Demography is regarded as the science of population. It encompasses not only an understanding of the size, growth, and characteristics of population but their changes over time and space as well.

Demography is also considered as a multidisciplinary and interdisciplinary field in the Social Sciences. Certainly, it is intricate to examine the demographic behaviours and its determinants and consequences without analysing various inter-related factors such as biological, etiological medical, socio-economic, political, cultural, psychological, and environmental factors. Thus, Demography is a lucrative discipline not only as a Social Science discipline but as a discipline that has progressed into the fields of study in the Schools or Faculties of Medicine, Health Sciences, and Public Health of the Universities in the six regions in the world; Africa, Asia, Europe, Latin America and the Caribbean, Northern America, and Oceania. In universities in the USA, the subject of Demography is mostly connected with the fields of Sociology, Economics, and Public Health whilst in the universities in the UK, it is accompanied mostly with the fields of Economics and Statistics. In Asia, it is mostly associated with statistics whilst in Australia it expands as an independent Social Science discipline. The purpose of this paper is to overview how Demography is rooted in and has evolved as an important academic discipline and its significance and use in the field of Social Sciences.

The remainder of the paper is organized as follows: In Section 2, we take a closer look at the definition of Demography. Section 3 presents the nature or subject matter of Demography. Section 4 explores the difference between Demography and Population Studies. In section 5, the interdisciplinary nature and the multiplicity of Demographic orientations are discussed. Section 6 provides an overview of the historical milestone which marked the beginning of Demography as a field of study. Section 7 explores the background information pertaining to the expansion of Demography as a major field of study. The establishment of Demography as a Study Stream in Sri Lanka is discussed in Section 8. The next section lists the population related courses offered by selected universities in Sri Lanka. Section 10 overviews Demography from an administrative and policy planning perspective and the last section

presents the significance and use of Demography, including the summary and concluding remarks.

2. What is Demography?

One of the common questions that is frequently raised is "What is Demography?". Simply, we can construe that demography is the 'study of population'. The term 'Demography' is made up of two Greek words consisting of the prefix demos (people) and the suffix graphein (write or draw or study) which means *to draw or write about the people* or *the study or description of the people*. However, this literal meaning provides a narrow sense of the term 'Demography'. Several demographers attempted to provide scientific definitions of Demography from time to time. According to the UN (1958), Demography is a scientific study of the human populations, primarily with respect to their size, their structure, and their development (United Nations, 1958). Further, an acceptable definition of Demography is the "statistical and mathematical study of the size, composition, and spatial distribution of human populations, and of changes in these aspects through the operation of the five processes of fertility, mortality, marriage, migration, and social mobility" (Bogue, 1969, pp.1-2).

In considering the major components of fertility, mortality, and migration in the study of Demography, Hawthorn (1970, p. 3) defined demography as follows;

> Populations are the product of birth, death, and migration rates. Demography is the name conventionally given to the study of the nature and interactions of these rates in human populations, and the effects of changes on the composition and growth of such populations.

Wunch and Termote (1978) defined Demography in a different angle which could be understood by the general public. According to them;

> Demography is the study of population, its increase through births and immigration, and its decrease through deaths and emigration. In a boarder context, demography is also the study of the various determinants of population changes and of the impact of population on the world around us. (p.1)

The term 'Demography' was coined in Belgium and it was first used by Achille Guillard in 1855 in the article titled 'Éléments de statistique humaine, ou démographie comparée' – Elements of human statistics, or comparative demography (Shryock & Siegel, 1971, p.2). Guillard (2013; originally published in 1855) defined demography as "the natural and social history of the human species or the mathematical knowledge of populations of their general changes, and of their physical, civil, intellectual, and moral conditions (p. xx). However, this definition gives a general view of the discipline as it is beyond the scope of Demography.

3. Issues often sidelined in devolution debates

Demography as a Social Science discipline has specific features in its nature and particularly covers its own subject matter. Demographers are particularly interested in the statistics of fertility (births), mortality (deaths), and migration (spatial movements) as these three variables are the 'components' that affect population, its size, growth, composition, and population change. These three variables (components) are measured by the birth rate, death rate, and migration rate respectively.

It is widely accepted that Demography is mostly concerned with the numerical data on all aspects of population. The size, growth, and characteristics of population are identified and analysed based on numerical data which are drawn from the censuses, vita/civil registration data which are called vital statistics, and survey data. These data in Demography are generally called 'demographic data' or 'demographic statistics'. Demographic analysis is usually carried out on a macro level rather than on a micro level; that is Demography is mainly concerned with the study of groups rather than individual beings (e.g. the total population and its various socio-demographic and economic characteristics in a geographical area). However, the methods of data collection in the censuses, vital registration systems, and sample surveys are always based on individuals or the micro level.

4. Interdisciplinary and multiplicity of orientations of Demography

Demography can be regarded as an interdisciplinary and multidisciplinary field as it is related to other disciplines in the Social Sciences such as Anthropology, Economics, Geography, History, Sociology, Political Science, Psychology and Public Policy etc. Natural Sciences such as Biology, Epidemiology, Etiology, Medical Science, Mathematics, Statistics and Public Health etc. (see Figure 1). For instance, the formation and dissolution of marriage and reproductive behaviour which comes under the domain of "Nuptiality" in Demography can be understood adequately only by considering economic, social, cultural, psychological, biological, and other factors. As illustrated in Figure 1, several disciplines in the fields of Social Sciences and Natural Sciences are mutually related to each other and to Demography but it is not required to consider the entire substance of those disciplines to study demographic phenomena.

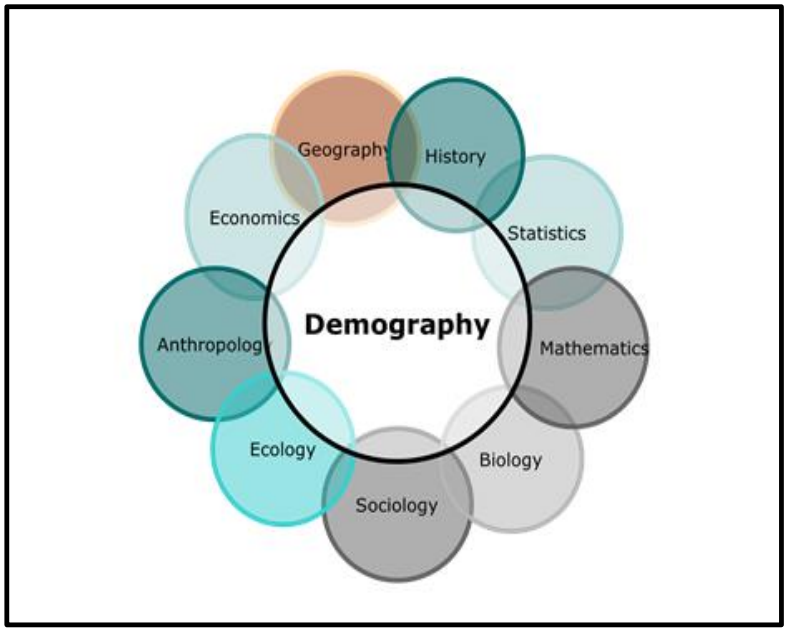

Figure 1: The interdisciplinary and multidisciplinary nature of Demography
Source: Author, 2023

Moreover, Demography is mutually related to Economics. For instance, high population growth rates in developing countries leads to deteriorating productivity, low per capita income, mass unemployment, and low growth rate of economy. Thus, this discloses that Demographic factors have a close relationship to understand the economic changes. Hence, the economist, Bowen (1976) rightly points out that] "Population size, growth, and distribution cannot be discussed rationally except in the context of economic growth or change" (p. 130).

Due to this close relationship and inter-related and multiplicity nature of Demography, several specific disciplines have originated in the Social Science and Natural Science fields such as Economic Demography, Social Demography, Political Demography, Historical Demography, Population Geography, Biodemography (Carey & Roach, 2020), Mathematical Demography, and Statistical Demography. The multidisciplinary and interdisciplinary nature of Demography also conforms with the fact that many demographers have received training in another discipline before they specialized in Demography.

5. The difference between Demography and Population Studies

Although, at a glance, Demography and Population Studies appear to be the same, there is a distinction between them. Hauser and Duncan (1959) regard the field of Demography as consisting of a narrow scope – demographic analysis; and a wider scope – population studies. As pointed out by Hauser and Duncan (1959, pp. 2-3), Demography and Population Studies are closely inter-related but slightly different disciplines in their scope as Demographic Analysis is confined to the study of components of population variation (fertility, mortality, and migration) and changes whilst 'Population Studies' in a border sense, consider the determinants and consequences of population trends. As stated by Hauser and Duncan (1959);

> Demography analysis is confined to the study of components of population variation and change and Population Studies are concerned not only with population variables but also with relationship between population changes and other variables, social, economic, political, biological, genetic, geographic and the like. (p. 2)

Thus, the field of Population Studies is at least as broad as interest in the 'determinants and consequences of population trends' (Hauser & Duncan, 1959, pp. 2-3). Therefore, Population Studies is considered to be a "set" whilst Demography is a "subset" of the discipline. Most people would like use Population Studies and Demography interchangeably. However, Population Studies is completely different from Formal Demography (Mathematical Demography). Social Demography is the study of the relations between demographic and social phenomena. Social Demography discusses Population Studies.

Thus, the Demographer, Thomlinson (1983) has rightly pointed out that "Demography has always been interdisciplinary, and this multiplicity of orientations seems to be inevitable as shown the complex nature of demography, i.e., exploration of the causes and consequences of changes in fertility, mortality, and migration" (p. 93). Hence, most graduates and undergraduate students who follow training programmes in Demography attempt to understand the fertility or mortality behaviour using theories and factors related to the related subjects in the fields of Social Sciences such as Sociology, Anthropology, and Economics, and Natural Sciences, particularly Medicine, Public Health, and Statistics. Further, students who follow Demography as a special subject at the undergraduate or postgraduate level would obtain the learning of interrelated theories and aspects in the Social Sciences and biological or epidemiological fields. As is widely accepted, demographic behaviour such as reproduction, morbidity and mortality, and social and geographical or spatial mobility (migration) cannot be fully grasped by overlooking the theories and empirical facts and figures of other Social Science and Natural Science disciplines.

6. Historical milestone for the beginning of Demography as a field of study

Several thoughts, counter thoughts, ideologies, and counter ideologies on the size, growth, and traits of population have been discerned since B.C. 5 (Zolta & Nodelman, 2018; Charbit, 2011; Zongle, 1995). Thus, population matters have been discussed by most of the political-economic scientists and philosophers from the ancient period and early modern period to the modern period in many civilizations and cultures such as Ancient Greece, Ancient Rome, China, and India (Charbit, 2011; Siddhisena, 2019). Although the first scientific study on Demography emanated from the study on *Natural and Political Observations made upon the Bills of Mortality* by John Graunt in 1662, Ancient Chinese, Greek, and Arab philosophers such as Confucius, Plato, Aristotle, and Muslim Sociologist like Khaldun concerned themselves with the various population issues of their days (Pollard et. al., 1974, p.1). Most population matters had been discussed based on political, military, economic, and social viewpoints (e.g., *Plato's optimum population ideology*). However, John Graunt's (1620-1674; a British draper-cloth seller) analysis on the causes of deaths using parish records and burial permits in London

between 1601 and 1661, where he calculated various death rates and primitive life tables based on shop arithmetic, is significant as it revealed that one-third of the children in London died before their sixteenth birthday. John Graunt's publication marked the beginning of Demography granting him he status of '*The Father of Demography"*.

The creation of the primitive life table by Graunt later led to the development of the detailed life table. A Mathematician and British Astronomer, Hally (1656-1742) constructed a detailed life table as the basis for life insurance mathematics and he invented the term "Expectation of Life". Moreover, Bernoulli (1700-1782) used Halley's life tables to study the efficacy of inoculation against small pox.

The evolvement of demographic ideas continued from the following studies as well; Suessmilch (1707-1767), a German clergyman, wrote the first comprehensive book on population titled "*The divine order in the changes of human race shown by its birth, death and reproduction*". Also, he constructed a life table for universal applicability using Swedish, German, and French data.

Reverend Thomas Robert Malthus (1766-1834) contributed a substantive study on the relationship between food and population in his essay published in 1798 titled "*An Essay on the Principles of Population".* This publication was revised in 1803 and further revised in 1806, 1807, 1817, 1826, and 1872 as second editions. His focus was mostly on fertility and reproduction. Malthus is seen as the intellectual father of ideas of over-population and the limits to growth and he was afraid that, if unchecked, the growth of population would tend to outstrip the growth in food production which leads to ever-increasing famine and poverty. Though some of his theories were not proved empirically, due to his thoughtful contribution to the field of Demography, Rev. Thomas Robert Malthus is generally considered to be *'The Father of Substantive Demography'*.

Since the mid-19th century, a number of mathematicians and statisticians were interested to swivel the dynamics and growth patterns of population into more sophisticated and realistic models. Among those Mathematicians, Benjamin Gompertz (1779-1865), a British Mathematician, had contributed the "Gompertz law of mortality", which was a demographic model published in 1825. In this model, Gompertz conferred that over much of the adult human lifespan, age-specific mortality rates increased in an exponential manner and in his equation, he brought out a prominent feature in the wider scientific study of patterns of life and death (Kirkwood, 2015). Pierre François Verhulst (1804-1849), a Belgian Mathematician, had developed the logistic growth model, which was an analogy to the Arithmetic and Geometric model, by producing three papers between 1838-1847 (Cramer, 2004). In addition to the above scientists, there were many great demographers like Adolphe Quetelet (1796–1874), who systematically collected data on births, deaths, and crimes and contributed to the development of social and physical characteristics of population, and the methods of population censuses; William Farr (1807–1883), an English Epidemiologist, who constructed an English life table and made the classification of cause of deaths; and Wilhelm Lexis (1837–1914) who contributed to the theory of statistics and its application, particularly in population research and

economic time series in the demographic analysis. The great contributions of these scholars to the field of Demography especially in the period of 1860–1910 prove that demography had a period of transition wherein Demography emerged from Statistics as a separate field of interest.

The word "Demography" was firstly coined in 1855 by the Belgian Scholar Achille Guillard, who defined Demography as the natural and social history of human species or the mathematical knowledge of populations, of their general changes, and of their physical, civil, intellectual, and moral condition.

The social scientists such as geographers had also attempted to explore the distribution and redistribution (migration) of population by the pre-modern and modern period. Ernest Georg Ravenstein (1834-1913), a German-English geographer and cartographer, made major contributions by widely exploring the patterns and determinants of international movements. Ravenstein's (1885) book titled '*On the laws of migration*' was the first scientific study on migration. Hence, he is considered the '*Father of Migration*'. Ravenstein's theory of migration explored several patterns of people's movements such as that most migrants move only a short distance whilst long-distance migrants go to one of the great centres of commerce and industry; females are more migratory than males; movements take place step by step so that people move into a rapidly growing town and then move to more distant areas until the attractive force [pull factors] is spent; and economic factors are the main cause of migration.

7. Expansion of Demography as a major field of study

As the growth of the world population accelerated in developed and developing countries since World War II, especially in the 1950s, several social scientists, policy makers, and UN agencies were very concerned of the consequences of population size, growth, and distribution (Figure 2).

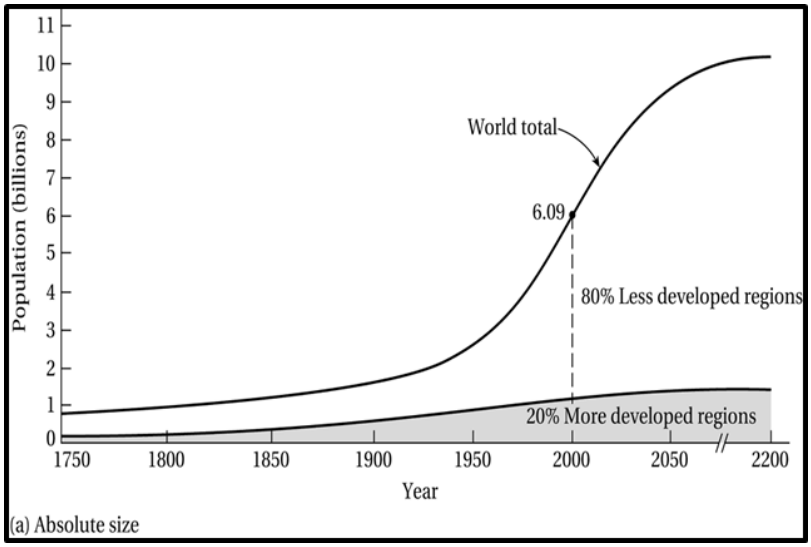

Figure 2: Population: Historical trends

Source: slideserve.com, n.d.

As a result of this scenario, most universities especially in the Western World decided to include the disciplines of Demography or Population Studies in their university curriculums in the Social Sciences streams and the United Nations initiated the Population Division to conduct demographic research, support intergovernmental processes at the United Nations in the area of population and development, and to assist countries in developing their capacity to produce and analyse population data and information in 1946 (UN Population division, n.d.). Most universities in the Western World initially developed courses in Demography at the postgraduate level under the fields of Sociology, Economics, and Public Health. Later, these courses were introduced in the curriculum of several graduate degree programmes. Since the 1950s, teaching Demography as a Social Science discipline further flourished in the university education as well as the general education in other parts of the world; European, Asian, and Asia-Pacific regions. In Australia, Demography as a discipline was introduced at the Australian National University in 1952 whilst Sri Lanka introduced 'Population Education' in the school curricula in the 1970s (Siddhisena, 2021). It is well known that Professor W.D. Borrie, who founded the Department of Demography at the Australian National University in 1952, was the first worldwide Professor of Demography and from 1957 onwards, he was the Professor of Demography and Chair of Demography (Caldwell, 1995) at the Australian National University.

With the development of population trends especially in developing countries as seen from Figure 2, The United Nations also explored the platform for policy makers to discuss population issues and the importance of teaching and undertaking research. Thus, the United Nations has paid special attention to discuss issues and demographic, socio-economic, and political impacts related to demographic trends and its dynamics since the 1950s, particularly through several foremost international meetings and conferences on Population, viz., 1954 World Population Conference in Rome; 1965 World Population Conference in Belgrade; and 1974 and World Population Conference in Bucharest. These efforts brought momentum to vigorously promoting population education as one of the components in school curricular and in university education. As a result, population education flourished in developed as well as in developing countries (Gnanarajah & Fraser, 1981). Furthermore, serious consideration on the importance of population education in Asian countries began after the Population Studies workshop held in Bangkok in 1970 (Gnanarajah & Fraser, 1981).

8. The establishment of Demography as an academic discipline in Sri Lanka

The rapid growth of the Sri Lankan population which nearly doubled from 1946 (6.66 million) to 1971 (12,69 million), or showed an average annual increase of 2.58 per cent per year during this intercensal period of 1946-71, led to the introduction of population education to the school curricular and university education. The UNFPA (United Nations Funds for Population Activities-presently known as United Nations Population Fund) was immensely concerned in granting financial assistance to initiate and promote population programmes such as training and research in the field of Demography and Population Studies in Sri Lanka. Consequently, the UNFPA granted generous financial assistance to the University of Colombo to promote teaching and research activities on population studies under the Faculty of Social Sciences (the present Faculty of Arts) (Ministry of Health and Social Services, 1994). As a result, the United

Nations Population Division, Government of Sri Lanka, and the late Professor Laksiri Jayasuriya (former Dean and Professor of Sociology) of the Faculty of Social Sciences of the Colombo Campus decided to establish the Demographic Training and Research Unit (DTRU) within the Faculty of Social Sciences of the Colombo Campus of the University of Sri Lanka in April, 1973. The DTRU officially commenced operation under the Directorship of late Professor A. D. V. de S. Indraratna, Emeritus Professor of Economics in January, 1974. The prime objective of the DTRU was to initiate teaching, training, and research in the field of Demography and Population Studies as a Social Science discipline in Sri Lanka. Population issues such as the consequences of growth, distribution, redistribution (migration), and urbanization of population were taught under the disciplines of Economics and Geography in the university prior to the 1970s. Thus, introducing Demography as a pivotal discipline to the university education in Sri Lanka took place with the establishment of the DTRU in 1973 and through its training and teaching of programmes. As the DTRU was subsequently upgraded to a full-fledged department as the Department of Demography in 1997, it expanded its training programmes for undergraduate and postgraduate levels introducing several course modules on Demography and Population Studies under the founder Head of the Department, Dr. K.A.P. Siddhisena. Demography was introduced as a subject for the Bachelor of Arts (General) degree programme consisting of six course units in 1990. In order to offer more choices for students, the six course units were expanded to 10 and subsequently the Bachelor of Arts (Special) degree in Demography was introduced in 1991. Moreover, several academic programmes at the postgraduate level (PGD, MA, MPhil, Ph.D) were initiated and promoted, and several research activities on demographic and development issues were undertaken by the department and the senior staff members. Thus, Demography came to be considered by the academia and policy makers as an important discipline in the Social Sciences which contributes to make proactive decisions in planning and facing development challenges in Sri Lanka.

Several course units and training programmes on Demography and population related fields have been introduced to other universities and governmental and non-governmental institutions after the establishment of the DTRU and the Department of Demography. On the request of the Department of Town and Country Planning of the University of Moratuwa, the Department of Demography offered a 3-credit course unit in Demography for the B.Sc. Degree in Town and Country Planning. These Demography courses are continued at the University of Moratuwa at undergraduate and postgraduate levels and lectures are conducted by trained staff members of the University of Moratuwa who have followed the Postgraduate Diploma in Population Studies conducted by the Department of Demography.

As widely accepted, due to its interdisciplinary nature, Demography is closely related to Statistics and Mathematics which are the subjects that authentically help to develop demographic techniques, models, and projections. Accordingly, the Department of Demography offers two Demography courses, viz Basic Demographic Techniques and Advanced Demographic Techniques, for the B.A. Special Degree in Social Statistics conducted by the Department of Economics of the University of Ruhuna since 1986.

9. Population related courses offered by selected universities in Sri Lanka

Population related course units are generally offered by the Departments of Geography in the General and Honors Degree Programmes in the Universities of Kelaniya, Sri Jayewardenepura, Ruhuna, Sabaragamuwa, Peradeniya, and Jaffna. For instance, a course unit on Population Geography was offered in the 1st year of the Honours Degree up to 2005, and under the Development Studies degree programme, the course unit on Population and Development was offered while a course on Population Studies was offered for the M.A. in Geography by the Department of Geography at the University of Kelaniya. Likewise, courses on Population and Development or Population Geography are offered by the Universities of Ruhuna, Sri Jayewardenepura, Jaffna, and Sabaragamuwa. The Department of Geography of the University of Jaffna had offered an M.A. in Population and Development for two batches during the 2005-2006 period. Moreover, two demographic courses titled Introduction to Population Studies and Demographic Techniques are offered in the 2nd and 3rd years respectively of the B.A. in Social Statistics Honours degree offered by the University of Sri Jayawardenepura.

Population issues are sometimes studied by the Departments of Sociology and Economics as a part of other courses whilst research work done by staff and students also cover population and development issues. Further, in order to strengthen Demography and Population Studies in these universities, the UNFPA launched a special project titled "Strengthening Population Studies and Research in Selected Universities" in collaboration with the University Grants Commission under the direction and supervision of the then Chairman of UGC, Prof. Sirisena Thilakaratne (UGC/ UNFPA Project), considering the Department of Demography as the focal point during the period of 1995-1999. After initiating this project, the UGC vigorously coordinated and encouraged to offer population and development courses and to conduct research activities in these universities. In order to promote teaching and research activities related to Demography/Population Studies disciplines, a senior academic was appointed as the coordinator to the project from each of the universities; University of Colombo, Kelaniya, Sri Jayawardenepura, and Jaffna.

As suggested by the Department of Demography, the UNFPA agreed to establish the Population Association of Sri Lanka and a generous fund was offered to initiate it. Hence, the Population Association of Sri Lanka (PASL) as a professional body was founded on the 8th of February 1997, by a group of researchers, academics, policy makers, and professionals with a wide range of interests pertaining to the advancement of Demography, Population Studies, and allied fields of scholarship. In order to publish research papers on Demography and allied fields, the PASL initiated the journal named the *Sri Lanka Journal of Population Studies*, which is the only learned and peer-reviewed journal in Sri Lanka dedicated to the fields of Demography and Population Studies in the Social Sciences.

Thus, the field of Demography became a pivotal applied discipline of the Social Sciences spectrum spanning across both Social Sciences and Natural Sciences fields. In this context, the Department of Demography has become an important institution in Sri Lanka which conducts numerous training programmes on Demography and Population Studies to nurture

population scientists, to develop high-quality research in population and related disciplines, and to provide advocacy for resolving development challenges in Sri Lanka.

10. Demography in administrative and policy planning perspectives

The discipline of Demography was required for various training programmes which primarily benefit officers, whose work is related to population and allied disciplines. These progammes include training programmes in population and the associated socio-economic environment and citizen's life; training programmes on population and sustainable development conducted for the middle-level administrators; lecture series on basic population matters and issues conducted for the newly recruited Sri Lanka Administrative Cadet officers at the Sri Lanka Institute of Administrative Development (SLIDA); several lecture sessions on Population Studies conducted for the Health Nursing Staff in the Psychiatric Social Service at the Mental Hospital, Angoda,; lecture sessions done for the health and health related personnel who followed the Diploma in Health Promotion conducted by the IWE, University of Colombo; and lectures on demographic measures and population related issues conducted for the National Institute of Social Development (NISD). In addition, over the last 10-12-year period, on the request of the Department of Labour, the Department of Demography has been offering a short-term training programme on population and its issues to the Labour Officers. Other than these specific lecture sessions, many lectures on population and its related issues have been conducted to non-governmental organizations such as the Sri Lanka Family Planning Association and Sarvodaya etc.

11. Significance and use of Demography

Demographic analysis is important as it provides useful information that can be used to make proactive decisions and planning strategies in business, government, and social services. For instance, consumer and marketing behaviours mostly depend on the age and sex composition of a population. Hence, demographic analysis helps people to understand the characteristics of a population and how it might change in the future for making effective decisions.

An understanding of demographic parameters such as the size, growth, and the distribution of population in regional areas is also useful for regional planners in making decisions on land utilization and implementation of agricultural and industrial development programmes.

A demographic analysis is able to ascertain the quantity and distribution of people within an area of study. Thus, accurate records on demographic factors support to explore causal relations between population trends and various aspects of social organization.

Demographic analysis is beneficial for political decision making such as when demarcating electoral wards and constituencies; in obtaining information on the increase and decrease in the number of voters; in the formation of local government bodies; in the collection of taxes by the government; in planning for social services and good health facilities; and in the preservation

of law and order. Further, based on the population and their characteristics, political parties can frame their policies and election manifestos during the time of elections.

Moreover, Demography is vital for understanding social and economic problems and identifying potential solutions. Demographers are engaged in social planning, market research, insurance forecasting, labour market analysis, and making crucial decisions that impact economic development.

Demographics is an important tool to track and assess whether particular government policies and programmes had an impact on the population and society. For instance, the applications of Business Demography enable the understanding of the size and influence of a potential market or the assessment of the characteristics of a target market in the business sector.

Demographic methods and techniques are able to project future scenarios of demographic behaviours and their possible consequences and thus these projections can be used by policy makers to achieve future socio-economic wellbeing targets. Hence, in general, most academics, planners, and policy makers use population data and estimates to understand human activities.

In summary, the above overviews on different aspects of Demography as a Social Sciences discipline prove that it is an authenticated field of study which facilitated the understanding of the multifaceted aspects of population and society. Demography as a Social Sciences discipline is a lucrative field of study for Social Scientists and Natural Scientists alike. Hence, the discipline of Demography cannot be ignored by academicians, planners, policymakers, politicians, or administrators.

References:

Bogue, D. J. (1969). *Principles of demography*. John Wiley & Sons Inc.

Bowen, I. (1976). *Economics and demography*. George Allen and Unwin Ltd.

Caldwell, J.C. (1995). The strengths and limitations of demography, and the works of W.D. Borrie. *Journal of the Australian Population Association, 12*(1). 1-14.

Carey, J. R. & Roach, D. A. (2020). *Biodemography: An introduction to concepts and methods*. Princeton University Press.

Charbit, Y. (2011). *The classical foundation of population thought from Plato to Quesnay*. Springer Science and Business Media.

Cramer, J. S. (2004). The early origins of the logit model. *Studies in History and Philosophy of Science Part C: Studies in History and Philosophy of Biological and Biomedical Sciences, 35*(4), 613–626. 10.1016/j.shpsc.2004.09.003.

Gnanarajah, R. A. & Fraser S. E. (1981). Population education, some comparative perspectives: Singapore, Sri Lanka and Indonesia. *Southeast Asian Journal of Social Science,* 9(1/2), 86-99. http://www.jstor.org/stable/24490841

Guillard, A. (2013). *Éléments de statistique humaine ou démographie comparée* (1855). https://doi.org/10.4000/books.ined.16965

Hauser P. M. & Duncan, O. D. (Eds.). (1959). *The study of population: An inventory and appraisal.* The University of Chicago Press.

Hawthorn, G. (1970). *The sociology of fertility*. Coller-Macmillan.

Kirkwood, T. B. L. (2015). Deciphering death: A commentary on Gompertz (1825) 'On the nature of the function expressive of the law of human mortality, and on a new mode of determining the value of life contingencies. *Philosophical Transactions of the Royal Society B*, 370. http://dx.doi.org/10.1098/rstb.2014.0379

Ministry of Health and Social Services. (1994). Sri Lanka national report on population. *International Conference on Population and Development-5-13 September 1999, Cairo Egypt*. Colombo, Population Division, Ministry of Health and Social Services.

Pollard, A. H., Yusuf, F. & Pollard, G. N. (1974). *Demographic techniques*. Pergamon Press Australia.

Shryock, H. S., Siegel, J. S. & Larmon, E. A. (1971). *The methods and materials of demography* (volumes 1 and 2). U.S. Government Printing Office.

Siddhisena K. A. P. (2019). *Historical thoughts of population*. Author's publication (in Sinhala).

Siddhisena, K. A. P. (2021). Demography: A multidisciplinary programme. In P. de Silva, K.N.O. Dharmadasa., A. Tilakaratne, C. Nahallage & W. Hewamanage (Eds.), *Beyond boundaries: One hundred years of Humanities and Social Sciences in Sri Lankan Universities. Vol 11: Social Sciences* (pp. 209-226). Colombo. University Grants Commission.

Slideserve.com [digital image]. (n.d.). https://image.slideserve.com/446380/population-historical-trends-l.jpg

Thomlinson R. (1983). Interdisciplinarity in the teaching of demography in North America. *Janasamkhya, Jun 1*(1), 91-97.

UN Population division. (n.d.). UN. Retrieved November, 15, 2023, https://www.un.org/development/desa/pd/content/population-division

United Nations. (1958). *Multilingual demographic dictionary*. United Nations.

Wunsch, G.J. & Termote, M.G. (1978). *Introduction to demographic analysis: Principles and methods*. Plenum Press.

Zolta, E. N. & Nodelman, U. (Eds.). (2018). *Stanford Encyclopedia of Philosophy*.

Zongle, T. (1995). Confucianism, Chinese culture and reproductive behaviour. *Population and Environment,16*(3), 269-284.