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Preface

Purpose

Population growth and transition are of major concern to policy makers, managers in the public and private sectors, academics and students, as well as to the population at large. The purpose of this book is to provide insights into the multifaceted nature of issues related to population growth conditioned by the environment in which people live, and the on-going evolution of human activity that changes not just social and economic relationships and organisation but also living conditions and the environment.

Organisation

The chapters in the book are organised to offer complementary perspectives of the world's population transition as it affects societies in regions with different and evolving population characteristics at various stages of development. It deals with population growth and the evolving nature of human activity, which affect social relationships, organisation and also work, standards of living and the environment.

The first chapter provides an overview of human development as it evolved on the planet, population growth, activity and development.

The following six chapters examine the diversity of views, notions, concepts and theories that have emerged to explain population and socioeconomic change and related concerns. These chapters deal with the basic elements of population dynamics, namely fertility, survival and migration, and some aspects of their manifestation in the settlement of the growing population in urban settings and population ageing.

Then, two social questions of importance and consequence are discussed. The first is concerned with gendered differences in human behaviour and social organisation, and the evolving nature of gender inequalities is examined.

Discussion of deviance in the form of departure from social conventional norms and criminal behaviour follows. The innovative nature of some deviant behaviour as an element in social change is reviewed, as well as the individual and social costs of criminal behaviour.

Then follows two chapters that examine socioeconomic activity and its effect on living conditions and the environment. Socioeconomic development through time and its effect on social and economic organisation are examined, with emphasis on the evolving and growing importance of human capital, and implications to changes in employment, productivity, inequalities in the sharing of productivity gains, as well as the changing nature of consumer priorities. The impact of human activity on the environment is then considered. The effects on the three major environmental domains of land, water and air are reviewed. The uncertainties of the outcome of continuing current economic practices regarding emissions from power generation and other energy use are considered, as well as the problem of reconciling private and social interests.

Finally, the last chapter is an agenda of challenges to be faced in the future arising from the inevitable future growth in population, the needs of a larger number of people in an already crowded planet, and the continuing lags and gaps of the living conditions of people in countries at different stages of development.

Use

The book is of interest to practitioners concerned with population change, such as those involved in social and economic policy analysis and development, business and human resources management, education and public health, and to academics with similar interests. It is also pertinent to students in population-related studies such as applied demography, human geography, sociology, economics, human resources management, political sciences and public health.

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Chapter 1

Population: Survival and Growth



1.1 Earth, Life and Humans in Context

1.1.1 Recent Arrival of Humans

Early humans evolved some five to six million years ago, and from the last common grandmother of humans and chimpanzees around 2.5 million years ago, the genus homo arose with the development of stone tools (Harari 2015). This is late in Earth's chronology that is thought to go back about 4,600 million years ago. The surviving Homo sapiens are believed to have evolved even more recently about 150,000 years ago (Harari 2015). Human origins and evolution are controversial and the factors that led to the relatively recent appearance of human life are still being debated. New technologies have helped and new findings have added to current knowledge but have not eliminated the uncertainty that surrounds the appearance and evolution of the human genus. Homo sapiens being the last of the genus could be considered ominous.

1.1.2 Earth's Formation

Current consensus suggests that the Earth's origins go back to the creation of the solar system from a gas and dust nebula that collapsed under gravity. It formed a system of planets around the Sun including the inner rocky planets of Mercury, Venus, Earth and Mars some 4,600 to 4,000 million years ago (MYA) during Hadean times (Box 1.1). At some stage, this accretion consolidated into Earth's solid inner and a liquid outer *core* enveloped by a *mantle* where hotter material rises to the surface and colder material falls to lower depths of the mantle. Flows between the mineral core and the rocky mantle are said to have affected changes in the magnetic polarity of the Earth over time. Eventually, a colder *crust* was formed that