

# Preface

World population will reach 7.2 billion people during 2014 with 1.3 billion in industrialized nations and 5.9 billion in the developing world, mainly in Asia and Africa. This number is estimated to grow to 8.6 billion by 2035, to 9.7 billion by 2050, and will likely stabilize at more than 10.3 billion earthlings at the end of the century. This assumes that there will not be population crashes because of lack of water and food for the growing populations in developing and less developed countries or because of killer epidemics or pandemics. It assumes as well that there will not be major wars in which weapons of mass destruction will be used and that a massive asteroid will not smash into our planet Earth. The time frame for global population growth is well within the lifetimes of grandchildren of our elder generation and of children and grandchildren of today's mid-life generation. Whether individual nations and the international community can provide the necessities of life to sustain the additional billions of souls is questionable given our existing inability to do so with our 2013 global population. About one billion persons today ( $\sim 1$  in 7) suffer chronic malnutrition from lack of enough food and good quality food with the young and elderly making up the majority of afflicted persons. At the same time,  $\sim 1.5$  billion citizens ( $\sim 3$  in 14) lacked safe water for drinking, cooking, personal hygiene, and crop irrigation, and  $\sim 2$  billion people were without safe sanitation. If the community of nations cannot service the needs such as those just noted, how can it hope to sustain the needs of the populations in 2035, 2050, and the more than 10 billion in 2100 if the world reaches the projected numbers.

Clearly, decisions taken to provide sustenance and a reasonable quality of life for existing and added populations will directly affect the lives of future generations. The issues of how strategists worldwide plan to deal with this population growth should be on an equal plane of concern to international planners as have been those catastrophic and persistent festering problems that captured their attention during the past decade and continue to do so into 2014 and subsequent years. Examples of these include national and global economic woes, natural or

human-caused disasters, social stresses and needs, conflicts/wars/revolutions and political upheavals, pollution and diseases, and climate change, all of which impact contemporary societies and will likely affect future populations.

This book examines the complex interrelationships between the needs of a growing world population, the physical, chemical, and biological states of their environments, and evolving economic, social, and political situations. It reviews the best available methodologies that can be used now to provide partial or absolute solutions to problems that affect populations today. These and other problems will likely intensify in the future and must carry top priority status to resolve. The book also discusses research projects that are ongoing and that could help sustain people and their living environments if they prove successful. The text assesses the capabilities of global ecosystems and the wills of governmental and international agencies to apply suggested strategies to solve problems. Implementation of the best available technologies will allow them to provide the fundamentals necessary to achieve and sustain a reasonable quality of life for citizens beyond a subsistence state for what is hoped to be a stabilized world population this century.

Countering 21st Century Social-Environmental Threats  
to Growing Global Populations

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2015, XV, 164 p. 1 illus., Softcover

ISBN: 978-3-319-09685-8