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**POPULATION AND CONFLICT:
NEW DIMENSIONS OF POPULATION DYNAMICS**

by

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FOREWORD

The pervasiveness of population issues can be seen today in almost all aspects of human society. While our understanding of these issues has greatly increased over the last decade and a half, the implications of population dynamics for conflict behaviour have not been well explained. Population, conflict and their interaction may be important factors in determining the kind of world we will face for the remaining decades of this century and those of the next.

While the absence of population related pressures does not guarantee peace, these pressures could increase the probability of conflict. This is particularly true when such additional aggravating factors as widening economic disparities, worsening environmental conditions and dwindling natural resources are also present in countries.

This report by Professor Nazli Choucri brings into focus the role of population dynamics in conflict manifestations. It also underscores the need to resolve population issues within a development framework if prosperity and peace for mankind are to be ensured.

The UNFPA is pleased to see this report appear in time for the International Conference on Population in 1984 and hopes that this report in the *Policy Development Studies* series will advance the understanding of a complex and important issue.

New York
June 1983

Rafael M. Salas
Executive Director
United Nations Fund for
Population Activities

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PREFACE

I would like to express my appreciation to Dr. R.M. Salas, Executive Director of The United Nations Fund for Population Activities (UNFPA), for inviting in September 1980 a group of scholars to discuss the broad issue of the relationship between population and conflict. This meeting provided the initial basis for a conference on population and conflict, held at the Massachusetts Institute of Technology one year later to review the evidence at hand. This report reflects the worthy contributions made by the participants attending the conference and highlights some distinctive patterns relating population to conflict behaviour at individual, national, and international levels. I believe that this report calls attention to new issues of concern in the field of population.

I am grateful to Dr. A. Thavarajah, Director, Policy and Evaluation Division, UNFPA, for his direction and contribution to this project and to his staff associates, Dr. S. L. N. Rao and Ms. Linda Sherry, for their constructive revisions and valuable suggestions. I thank them for the work and effort put into the production of this report as well as to Diane Beth Hyman for her organizational and editorial support for the study as a whole and to Carol Conway as research assistant.

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INTRODUCTION: ISSUES IN CONTEXT

Until recently attention to population issues primarily has focused on the consequences of high fertility in many parts of the world. Rapidly growing numbers of people create social and economic burdens which cannot be ignored.¹ However, evidence suggests that population problems include not only births and deaths, but also demographic change as it affects national and international politics.² Conflict is a central feature of all political behaviour, at all levels of human interaction. Thus, the prominence of population variables in shaping political behaviour places population and conflict in close proximity. This report highlights some of the linkages between population variables and conflict behaviour.

Despite the international community's increasing awareness of population issues, a curious dichotomy continues to prevail between those who reduce population matters strictly to questions of fertility and mortality, rather than their broader implications, and those who view population issues in social and economic terms. Yet among both factions there remains a remarkable disregard for the potential political implications of population factors and their possible impact on conflict behaviour. More importantly, there is a continued lack of awareness by both policy-making and academic communities of the close links between population and security. At a time when military expenditures are escalating and insecurities abound, the challenges mount in an already burdened international environment. It would be the height of myopia to continue to disregard the increasing evidence concerning the relationship of population variables to conflict dynamics.

Views at the 1974 World Population Conference

The World Population Conference of 1974, held in Bucharest, Romania, was a landmark in the international community's growing recognition of population issues. In the wake of calls for a New International Economic Order, the 1974 World Population Conference drew attention to the relationship between population and development and to competing strategies for change.³ The major positions delineated at the Conference reflected both differing views of the population "problem" held by individual participants and differing approaches to its resolution. At least four different perspectives were represented. They illustrate the continuing diversity in the international community's appreciation of, and approach to, population issues.⁴

First was the view that population problems are largely problems of inequality in wealth and access to resources. Eliminating poverty and conditions of inequality would, it was argued, result in fertility decline. Direct interventions would not contribute as effectively to fertility decline as would social and economic development.

Second was the view that countries do, in fact, have population problems that directly hinder development. High rates of population growth were recognized as having a detrimental effect on development. Therefore, policies designed to reduce fertility would be welcome, providing they were incorporated in the broader fabric of social and economic development.

Third was the view that strong population controls would be required to bring population growth rates in balance with the rate of development. High rates of population growth were seen as having a detrimental effect on economic development.

Fourth was the view that there is no population problem in the abstract, but only as tied to modes of production. Therefore, population policies as such would not be required. Exploitation of developing countries by "capitalist developed countries" is responsible for both national and international social inequities.

This four-fold perspective reflects more generally the two competing orientations expressed at the World Population Conference of 1974. On the one hand was the belief, expressed strongly by most developing countries, that demographic variables are wholly a function of social and economic development and that overall social transformation will result in demographic adjustments. Therefore, attainment of a New International Economic Order is essential to the resolution of population problems. On the other hand, was the view that demographic variables are an essential aspect of social and economic development. Attention to population issues, therefore, must accompany the formulation of any social policy. Demographic policies must be considered as essential to overall development as economic policies, and specific attention has to be given to population interventions.

These competing perspectives focused mainly on the position of population policy in the overall priorities for development. Population policy in this context was viewed largely in terms of policies designed to control fertility. Demographic issues continued to be defined in terms of births, deaths, and attendant social implications. The full range of population variables—size, composition, distribution, and change—was not the subject of explicit debate or discussion.

Since the 1974 World Population Conference, there have been numerous international conferences which have drawn attention to the problems of developing countries and to overall international transformation and change. During the 1970s, population issues assumed a more prominent position on all international agendas. Yet while discussions of issues such as urbanization, pollution and desertification have included demographic dimensions, the focus of such discussions has mainly been the concern of developing countries for development. Thus, even though demographic considerations have been integrated with general economic development, they have been implicitly viewed as exogenous to development. In addition, nowhere in the international community's agenda have the conflict-producing effects of population variables, nor the changes in demographic

characteristics due to conflict situations, been considered. Conversely, the contribution of demographic change to conflict resolution and the prospects for peace likewise have been ignored.

Post Bucharest

During the 1970s, the international community's concern with demographic issues assumed two new guises: regional population conferences and global meetings of experts focusing on select facets of population issues. Such activities not only have broadened the basic discussion of economic development, but also have changed the idiom of international discourse. Throughout, the developing countries have insisted that their developmental problems are fundamentally different from those faced by industrial countries at an earlier historical period and that their solutions also would differ. This insistence by the developing countries on the importance of defining issues in terms relevant and appropriate to them is by far the most significant outcome of the long deliberations of the 1970s. This trend is part and parcel of the increasing politicization which surfaced at the 1974 World Population Conference, and promises to remain as a necessary consequence of international change and transformation during the last quarter of the twentieth century.

There have been several major United Nations Conferences since the 1974 World Population Conference (excluding special sessions of the General Assembly). They have dealt with food, the role of women, employment, human settlements, desertification, technical cooperation among developing countries, agrarian reform and rural development, science and technology for development, the management of radio frequencies, and new renewable sources of energy. Although these global forums took account of demographic issues, none of them focused explicitly and comprehensively on population factors.⁵

Conferences dealing specifically with population and development that have taken place since 1974 include: International Conference of Parliamentarians on Population and Development, Colombo, Sri Lanka, 1979; the 1979 Latin American Conference on Population and Development Planning in Cartagena, Columbia; the 1980 International Conference on Population and the Urban Future in Rome, Italy; the 1981 Asian Conference of Parliamentarians on Population and Development in Beijing, China; and the 1981 International Conference on Family Planning in the 1980s in Jakarta, Indonesia. While these meetings have helped to maintain global concern for population issues, the resulting recommendations have not yet reached the level of global diplomatic discourse.

The International Conference of Parliamentarians on Population and Development issued the Colombo Declaration in September 1979⁶ which recognized that world population could continue to rise to eight to ten billion people by the year 2000. This would mean a need for nearly an additional billion jobs in developing countries. The Conference Declaration called on governments to facilitate the attainment of goals of the New International Economic Order. The role of legislators as active agents in the development process was put forth as a major tenet of the Conference. This factor in itself both further legitimized and politicized concerns over population issues and their developmental implications.

The target of one billion dollars in international population assistance by 1984, constituted the Conference's specific recommendation regarding financial allocations.

The Rome Declaration on Population and the Urban Future, issued in September 1980, argued that strategies sustained by national legislation and financial support should focus on three areas: the establishment of comprehensive national population policies, organization and policies for balanced development, and focus on the amelioration of conditions in urban areas.⁷ This conference is important for its recognition of urban-related problems, a sphere where many of the most glaring population-conflict linkages are the most readily apparent. Recognition of these linkages would have strengthened the Rome Declaration's thrust immeasurably.

The Asian Conference of Parliamentarians on Population and Development held in Beijing, China in October 1981, issued the Beijing Declaration on Population and Development. Sixty per cent of the world's population is located in Asia. If present trends continue, the declaration stated, 90 per cent of the world's poor will be in that region. Almost 60 per cent of the total population of Asia is under 25 years of age, a factor that has critical implications for development. However, Asian parliamentarians made no use of the accumulating evidence regarding the implication of youthful populations for social disruption and potential conflict. The evidence comes, admittedly, from social science analysis in the West and cannot, therefore, be transferred uncritically to other regions. The Beijing Declaration expanded further its recognition and affirmation of the role of legislators in the formation of population policies and as critical actors in the process. The Beijing Declaration's statement that "peace, national security, and stability are preconditions for development" is a major landmark in the international community's acknowledgment of the many dimensions of population issues.⁸

Any global agenda for action during the decade of the 1980s should emphasize efforts to implement the directives outlined in calls for a New International Economic Order that were expressed in almost every major international conference throughout the 1970s. In the process, demographic considerations, and a host of attendant population issues, will remain in the forefront. The international meetings since the 1974 World Population Conference reiterated the multi-faceted aspects of population issues. As a result, population variables have been recognized as essential factors—more than building blocks, mortar, and concrete—for development. Nonetheless, other dimensions of the population issue—those that bear directly on conflict propensities and national security—remain to be recognized.

By the end of the 1970s, the international community was manifesting its concern with developmental problems in another way through intensive analysis by international groups of scholars in conjunction with decision-makers from different parts of the world. One important consequence of this new trend has been a set of international reports on the development issues. Several reports are particularly noteworthy as they represent the evolution of developmental thinking. These include: *World Population and Development: Challenges and Prospects* (1979), sponsored by the United Nations Fund for Population Activities; *The Global 2000 Report to the President* (1980), a report prepared by the Council on Environmental Quality and the United States Department of State; *North-South: A Program for*

Survival (1980), otherwise known as the Brandt Report; and *A National Agenda for the Eighties*, written by the President's Commission for a National Agenda for the Eighties, which focuses exclusively on the United States.

World Population and Development: Challenges and Prospects, edited by Philip M. Hauser, focuses on the relationship between population and economic development.⁹ Facets of demographic factors related to economic development, such as high fertility and growth rates, mortality, migration, health issues, and population composition and distribution are examined, as are the labour force and overall aspects of population characteristics. This volume is comprehensive in its identification of population-related problems. A notable omission, however, is an explicit analysis of the relationship between demographic change and conflict. However, Hauser and his contributors do state that economic development is the intermediate factor between population growth and violence. They indicate that only if developed countries were unwilling to cooperate with the developing countries in pursuing the latter's economic growth, would population pressures perhaps contribute to violence.

The Global 2000 Report to the President projects world population in the year 2000 to be 5.9 to 7 billion people and does not anticipate an appreciable decline in the rate of growth.¹⁰ The report's treatment of demographic issues reveals a singular lack of appreciation of the overall implications of demographic change and of the potential impact of such change on conflict and violence. The report analyzes global trends and predicts that dramatic changes in demographic characteristics induced by conflict or violence can be expected to create further changes in relations among nations. It argues for greater international cooperation, coordinated by the United States, but provides few specific directives or suggestions.

The Brandt Report, a combined effort of a distinguished group of individuals in public service, argues that vastly increasing population inevitably creates problems: in providing food, jobs, shelter, education, and health services; in mitigating absolute poverty; and in meeting the colossal financial and administrative needs of rapid urbanization.¹¹ It projects world population at 6 to 6.5 billion people by the year 2000, stabilizing in the next century at between 8 and 15 billion. The report stresses the need to stabilize world population as soon as possible, in order to avert massive dislocations, and the need for population policies to accompany economic growth. It notes the effectiveness of family-planning programmes, with particular reference to specific developing countries, and argues that the world will be racked by economic, social, and political conflict unless further efforts are made to assist in reducing the unfulfilled demands of poorer states.

Among the recommendations of the Brandt Report are the following: development policies must include national population programmes aimed at generating a satisfactory balance between population and resources and at making family planning freely available; international assistance and support of population programmes must be increased to meet the unmet needs for such aid; migrant labourers should be assured of good treatment; and home countries and countries of immigration should coordinate their policies and design ways of stabilizing demand for migrants and for regulating remittances.¹²

While the report is concerned with population as a pressure on resources and the environment, conflict and violence as a result of population pressure are not

taken into account, nor are they singled out as prominent side effects of worldwide population growth. In this respect the Brandt Report shares with the other international assessments a notable lack of recognition of the conditions under which rapid population growth could lead to large-scale conflict and of the conditions under which conflict, within and between countries, could result in massive population dislocations.

A National Agenda for the Eighties is an overall assessment of the United States' economic and social prospects for the 1980s.¹³ The demographic background for issues likely to arise in the 1980s is the subject of one chapter. It states that demographic shifts in the United States will shape the future demands of the society and the ways in which problems are defined and potentially resolved. The most important aspect of this assessment is that the future of America is one of greater ethnic and racial pluralism, a growing population of very old dependents, and a new structure in the composition of the labour force—all creating new demographic conditions and new problems for social policy. Again, however, conflict is not explicitly examined, nor are the demographic conditions that lead to violence.

In sum, the most notable international assessments during the latter part of the 1970s, and the early 1980s, share a singular disregard for the conflict-producing dynamics engendered by rapid demographic change both within and across nations. Nowhere in any of these reports is there an overall accounting of the multiple effects of population and of the multiple dimensions of demographic characteristics. The Brandt Report comes closest to providing a comprehensive account of population-related issues, most notably those pertaining to mobility, but even that report omits a discussion of conflicts due to changing demographic factors. To some extent, this omission may be due to a genuine lack of comprehension of such interconnections, but it also may be due to a lack of appreciation for the incidence and extent of conflict and violence internationally. While no one fully knows how many "deadly quarrels" exist at any point in time, nor their social and demographic implications, it is still a certainty that violent conflict is pervasive.¹⁴

New Dimensions

Despite the great diversity of views on population issues, there is an emerging consensus that population factors create pressures and demands on a society and that, if these demands are unmet, social dislocation, conflict, and violence may occur.¹⁵ What is not fully appreciated is that conflict and violence will in themselves create profound demographic consequences. Refugees are the most obvious of these consequences, but there are other consequences which may be less visible, but are no less profound and poignant. Increasingly, it is believed that changes in the size, distribution, and composition of populations are critical factors which can strongly influence political relations within and between nations. Demographic factors can affect the particular patterns of national and international behaviour which result in various types of conflict.¹⁶

This report assesses the political nature of demographic change and its relationship to national and international conflict. The inter-disciplinary, crosscultural, and historical evidence reviewed herein has important policy implications, both nationally and internationally. It also demonstrates that, regardless

of the types of policy orientation to which a nation subscribes, thorough consideration of the consequences of rapid and pervasive demographic change is essential to the formulation of viable domestic and international, social and economic policies. Among the most critical of these consequences are the political effects, particularly the impact on conflict within and between nations. Lest the charge be made that the evidence is posed in the negative—stressing conflict factors—the incidence of peace, and peaceful resolution of conflict situations, rests most profoundly upon an initial understanding of conflict-producing dynamics. This report thus can be viewed as a modest effort to highlight some aspects of the eternal “conflict spiral,”¹⁷ which are an essential prerequisite for understanding the nature of peace and embarking on initiatives for the attainment of peace.

DIMENSIONS OF DEMOGRAPHIC CHANGE

Despite difficulties in providing accurate assessments, United Nations data indicate that world population increased by 46.2 per cent between 1960 and 1980, from 3.03 to 4.43 billion.¹ According to the "medium" projections, population in developing countries is currently growing at a rate of 0.7 per cent annually, with a doubling time of 100 years. By contrast, population in developed countries is growing at a rate of 2.08 per cent annually with a doubling time of only 35 years.² The variance is due mainly to the difference in levels of crude birth and death rates in developed and developing countries. Dynamics of population growth appear to change rapidly—both in terms of sheer numbers and the underlying causes of changes in numbers. There is today a notable trend toward deceleration, namely a decline in fertility. United Nations projections indicate that the annual rate of global population growth could be about 1.5 by the turn of the century.³ Nonetheless, it is still estimated that net additions to world population will increase from 80 million in the early 1980s, to 90 million by the year 2000.⁴

Rates of population growth for various regions of the world are presented in table 1. It can be seen that the population of developed countries grew only slightly. In the developing regions, although population growth rates remained at over 2 per cent for both time periods expressed in the table, there is clear evidence of a decline in growth rates during the period of analysis, with the exception of Africa where the overall growth rate has increased. Demographers estimate that trends until the year 2000 point to slower growth rates in all regions except Africa.

While the United Nations projects a continued slowing of population growth in both the developed and developing regions, it is expected that developing countries will experience approximately a fifty per cent increase in their populations in the next two decades. For the developed countries, the anticipated growth for the same period is much lower—about 8 per cent in Europe, 17 per cent in the United States and the Union of Soviet Socialist Republics, and an average of 12.5 for all developed countries. These projections are based on estimates of fertility and mortality. Table 2 illustrates recent changes in the level of birth rates between 1965–70 and 1975–80 in developing countries. The near universal decline in birth rates indicated will have implications for future changes in the world demographic structure.

At present it is estimated that the world population in the year 2000 will be 6.1 billion. This estimate is about 20 per cent lower than previous projections. Although the major changes occurring during the 1970s is encouraging, the burden of future numbers on this globe remains extensive.

TABLE 1
RATES OF POPULATION GROWTH BY SELECTED REGIONS

Region	Average Annual Rate of Growth (in per cent)		Percentage Change During the Interval
	1960-1965	1975-1980	
World	1.99	1.72	-13.6
More Developed	1.19	.71	-40.3
Less Developed	2.33	2.08	-10.7
Africa	2.48	2.90	+16.9
Latin America	2.80	2.45	-12.5
East Asia	1.94	1.38	-28.9
South Asia	2.40	2.22	- 7.5

Source: United Nations, Department of International Economic and Social Affairs, World Population Prospects as Assessed in 1980, ST/ESA/SER.A/78 table 2, p. 7.

International Migration

In addition to fertility and mortality, another important aspect of demographic change in the 1970s was in the observed patterns of international migration and in the expectation of further changes in response to new trends in economic relations.

There are three kinds of migration across national borders: (1) conventional flows tied to the historical process of statehood, such as those between Europe and the United States, or migrations to New Zealand and Australia; (2) migration of workers to industrial countries, such as Southern European migration to the industrial countries of Europe, or Latin American migrants to the United States in search of employment opportunities; and (3) dislocation of populations created by either voluntary or involuntary mobility (for instance, refugees and nomads).

None of these flows is exclusive. For example, conventional migration to the United States from Europe has been augmented by illegal migrants and by refugees. In cases where the conjunction of these flows may result in the foreign population being a high proportion of the total population, mobility itself can become an important issue of public policy. The problems of refugees, recognized as critical since the inception of the United Nations, shows little sign of abatement. While the number of persons dislocated by violent conflict remains unclear, demographers estimate it to be in the millions.

Another type of migration, increasing in scale so vastly that it may be considered as a new trend, is the movement of people among developing countries themselves. The causes are both historical and economic in nature—the result of interdependent labour markets. In the Middle East, for instance, migration within

TABLE 2

**RELATIVE CHANGES IN BIRTH RATES IN DEVELOPING COUNTRIES
WITH POPULATION OF 10 MILLION AND OVER, 1965-70 AND 1975-80**

Percentage Change in Birth Rates	Name of Countries	Number of Countries	Percent of Total Population of Developing Countries in 1982
A. Decline			
Over 25	China	1	29.67
15-25	Chile, Colombia, India, Indonesia, Republic of Korea Malaysia, Thailand	7	29.27
10-15	Brazil, Peru, Philippines, Sri Lanka	4	6.22
5-10	Bangladesh, Egypt, Mexico, Pakistan, Venezuela	5	9.30
Under 5	Afghanistan, Algeria, Burma, Ghana, Iran, Iraq, Morocco, Mozambique, Nepal, Nigeria, Sudan, United Republic of Tanzania, Republic of Vietnam, Zaire, Argentina, Ethiopia	16	13.47
B. Increase			
Under 5	Kenya, Uganda	2	0.09

Source: Adapted from table 2 in Rafael M. Salas, *The State of World Population 1982*, United Nations Fund for Population Activities, 1982.

the region is one of the most distinctive consequences of economic changes taking place in the 1970s. The demand for labour, due to massive investment programmes in oil-rich states, has led to the pull of labour from adjacent economies.⁶ While an accurate estimate of stock and flows of labour migration is difficult to make, there is general agreement on the range of numbers involved. Although this type of mobility among developing countries appears most pronounced in the Middle East, it is also emerging as a phenomenon in Latin America, Asia and even in Africa. Oil price increases and new investment opportunities in the oil-exporting countries have been creating a new type of interdependence in the labour markets of some de-

veloping countries. It is too early, however, to tell whether this phenomenon is idiosyncratic to oil-related situations or whether we are witnessing a broader process of population mobility. The noticeable decline in oil prices during the early months of 1983 has already created a decline of economic activity in some countries resulting in migrant workers being sent back home. The reintroduction of returned migrants into their home economies may pose new policy issues for governments of both sending and receiving countries.

Internal Migration

Rapid urbanization continues to be one of the most distinctive features of the demography of developing countries. The pull of cities persists in attracting workers from agricultural areas, contributing to the pace of social transformation and to pressures on urban centers. According to United Nations estimates, the world's urban population has doubled since mid-century and may well double again before the century is over. In 1950, there were seven very large cities of 5 million inhabitants. By 1981, there were 29 such cities; of these 19 were located in developing countries. By the year 2000, there may well be 59 such agglomerations, 47 of which will be in the developing countries.⁷ Trends in internal and external migration together make population mobility a critical demographic issue for many countries. In a recent survey, the United Nations found that 44 per cent of developing countries consider their high rate of natural increase a hindrance to development. Sixty per cent consider the current patterns of spatial distribution to be inappropriate.⁸ Trends in internal migration make population mobility a critical demographic issue for many developing countries.

Ethnicity

Yet another major demographic dimension—in addition to fertility, mortality, growth, and migration—is change in the ethnic, religious and racial composition of a population. Ethnicity, a term which encompasses these diverse factors, is a major sociological determinant of national cohesion, a critical input in political processes, and the most basic element in individual self-definition. Self-definition can exert a powerful influence on individual behaviour in the immediate community, the larger society, and the state. No government anywhere can ignore the composition of its population or the location of various population elements, for these affect the very essence of statehood. Few countries in the world are completely homogeneous in ethnic, religious, and racial terms. Countries may differ in the extent to which ethnicity is a critical issue for public policy, but demographic diversity is almost unavoidably of concern to national governments. Ultimately, ethnicity may be the most critical demographic element for all national governments.⁹

Perceptions of Governments

Among the most notable changes in perceptions of population issues over the past decade are the following: (1) governments increasingly recognize population as an area for policy development; (2) research and analysis have begun to take into

account the interrelationship of population, resources, environment, and development; (3) some countries are making notable progress in establishing the necessary infrastructure for implementing population programmes, and (4) governments have increased their own allocations to population programmes while international assistance for population programmes has become more widespread.¹⁰

Governments representing about four-fifths of the world's population had adopted population policies by the mid-seventies. The 1974 World Population Conference and the resulting World Population Plan of Action, consolidated objectives and policies that had evolved over time. Changes in government perceptions are reflected in the fact that about 80 per cent of the total population of the developing world is located in countries which state that their levels of fertility are too high and would like them reduced. Only 17 per cent of the population of developing countries have governments that are satisfied with their current levels of fertility. Increasingly, governments are considering population distribution and internal migration as problems requiring immediate attention. By 1980, 110 developing countries out of 126 considered the distribution of their population as a critical problem requiring formal responses.¹¹

As a result of changes in perceptions, research on population issues has taken two important turns. At the macro-level, there is evidence of the linkages between population, environment, resources, and development. At the micro-level, there is evidence of the interconnection between social and economic variables that can reinforce the impact of population programmes if they are taken into account during policy development.¹² There is also some evidence of a negative relationship between fertility level and socio-economic status. Research in the 1970s indicated that the important policy factors for reducing both fertility and mortality rates in developing countries include education of women, changes in the status of women brought about by shifts from traditional to new occupations, access to health and family planning, and changes in attitudes towards family formation.¹³

In sum, over the past decade a broader view of population has evolved which is no longer narrowly focused on issues of fertility and mortality. There has been a major change in perceptions of the relationships between population, resources, and the environment as they bear on development. This new view incorporates other important issues which are now recognized to be critical to national development. Among these are the status of women, composition and distribution of population, quality of life, and social equity. The international community now recognizes that a comprehensive development strategy must take into account the overall effects of population factors.

International Conference on Population of 1984

The major objectives of the 1984 International Conference on Population are: to strengthen and sustain the momentum already generated in population activities; to identify emerging problems for concerted action; and to initiate programmes in areas where no significant impact has yet been achieved. The decade of the 1970s witnessed, both at national and international levels, a growing awareness of population issues and an increasing commitment to population policies and programmes. Despite these achievements, there is a sense of unease, that not all

aspects of population impact on society, policy and the economy have been understood, and that decision makers may be faced with yet further surprises emanating from demographic factors. National governments everywhere—in developed and developing countries alike—are invariably sensitized to the direct demographic underpinnings of their political system and their sense of national security is becoming more clearly tied to population activities. While these factors, and feelings, remain beyond the scope of the 1984 International Conference on Population, the evidence in this report points to the importance of appreciating the security dimensions of population.

CONFLICT AND VIOLENCE: A PARTIAL ACCOUNTING

Rendering an accurate accounting of the incidence of conflict at the international level is undoubtedly a most difficult task. The mere definition of what constitutes conflict remains a subject of disagreement, and a satisfactory resolution has yet to be made. Conflict analysis, the subfield of political inquiry that focuses on violence between and within nations, stresses the importance of covert as well as overt acts as constituting conflict. Over the past decades, political scientists have developed an internally consistent set of data on conflict behaviour that has been refined considerably and is now considered, in the scholarly community, to represent a fairly accurate account of overt conflict.¹

Conflict in International Relations

The definition of international conflict utilized in the field, and employed in this chapter, is "an interstate security dispute" that generally involves "specific power-political aims and demands having direct impacts on national behaviour" and is "perceived internationally as being focused on political and security affairs."² This definition includes political disputes that may not be violent in nature as well as violent disputes conventionally characterized as wars.

Following this definition it has been estimated that there have been 307 explicit conflicts between 1945 and 1980 (this is not presented as a comprehensive list of all conflicts during this period);³ 191 of these were disputes "involving systematic use of military force, over a specific military objective(s), causing casualties and/or destruction of property."⁴ A profile of these 191 conflicts, well-documented in terms of parties to the dispute, objectives, targets, and overall evolution and resolution (if any) is the partial basis for the following account of the conflict record since 1945. Also included is a summary of 116⁵ recorded political disputes that have not involved overt use of military force and conflicts that are largely internal, thus not involving the use of force or the crossing of national borders. These include situations in which domestic violence leads to internal displacement of persons. The following accounting, therefore, must be viewed as a conservative but comprehensive assessment of different categories of conflict in international relations. It demonstrates the extent to which conflict is as complex as it is pervasive.

TABLE 3
CHARACTERIZATIONS OF CONFLICT

Colonial Conflict	The objective is to overthrow a colonial power
Wars of National Integration	The objective is to consolidate the political order around some legitimate central authority
Wars of National Expansion	Territorial aggrandizement appears as a major objective
Domestic Conflicts Generated by Internal Political Instability	The main contenders are competing national or native elites
Political Conflicts a) purely political	The objective is to establish or maintain a sphere of influence
b) purely political — ideology	The objective is to establish or maintain a predominant ideology
c) political, drawing upon population factors	The objective is to exploit specific population factors
Dynamic Mixed Process Conflicts	Conflicts where the nature of the dispute undergoes substantial transformation in the course of the conflict

Source: Nazli Choucri, *Population Dynamics and International Violence: Insights and Evidence*. Lexington, Mass.: D.C. Heath/Lexington Books, 1974, p. 115. Based on synthesis of prevailing classifications in political analysis. These characterizations were based initially on analysis of conflict in developing countries. They are generalized here to all international conflicts.

The Structure of Conflict

While scholars do not yet agree as to why conflicts arise, there is an emerging consensus on characterizations of types of overt conflict.⁶ Table 3, drawing upon earlier studies, summarizes the broad characterizations of international conflict. It is generally agreed that conflicts unfold through a predictable and identifiable set of dynamics. Phases of conflict also are categorized from the emergence of political dispute to the overt expression of military hostilities.⁷ Yet there is the issue of

complexity. A conflict that might be initiated by one set of issues, may evolve to include additional and very different issues from those present at the outset of the conflict. The complex nature and transformation of conflict parameters are two of the factors most difficult to identify and characterize in international realities.

According to the Violent Conflicts Summary, table 4, one hundred and ninety-one conflicts involving use of military force have been identified as taking place between 1945-1980. By far the largest number (101), consisted of hostilities between developing regions.⁸ Only 75 of these conflicts can be identified clearly as disputes involving developed and developing countries. The remaining 15 violent conflicts concern hostilities between developed states. Thus the South-South conflict dimension has been the most frequent for international conflict involving military force during this period.

The incidence of conflict involving military force *among* developing regions themselves has increased steadily since 1940, in comparison with the decline in the number of such incidences between developed states. The trend in North-South conflicts was similar to that of developing countries until the decade 1970-79, at which point there was a dramatic decrease in North-South conflicts. The decline in the number of incidences during the past decade corresponds to the emergence of "détente" between the superpowers. Conflicts among the developing countries themselves have occurred mainly in Asia and Africa, as have conflicts between developed and developing countries. Conflict between developed states only has occurred in Europe.

In terms of types of violent conflict (see table 5) the majority of the overt conflicts can be characterized as those caused by internal political instability. Colonial conflicts and purely political conflicts rank second and third, respectively, in terms of frequency. Political conflicts with population factors and purely political conflicts with major ideological factors rank fourth and fifth in this characterization of conflict type. National integration conflicts and dynamic-mixed-process conflicts, whose nature changed over time, rank sixth and seventh. National expansion conflicts rank eighth. Less than two per cent of all conflicts since World War II have been coded as involving "national expansion" as compared to 40 per cent of the conflicts which have involved specific population-related factors such as integration, ideology, population factors, and mixed processes involving a number of issues over time. Data on type, location and nature of conflicts, as presented in table 5, should be interpreted with caution since they are based on only the 191 conflicts examined here.

According to the data in table 6, it has been established that for the period 1945-1980 there have been 116 conflicts *not* involving the use of military force. Of these, 48 were between developed and developing countries; 43 between developing countries and 25 were between developed countries.

Data on types and location of non-violent conflicts, presented in table 7, indicate that the majority of such conflicts have been purely political in nature. Pure political conflicts involving major ideological factors rank second. Colonial conflicts and political conflicts with population factors rank third and fourth. Conflicts resulting from internal political instability rank fifth. Dynamic mixed process and national integration conflicts are equally ranked as sixth most frequently occurring non-violent conflicts. National expansion conflicts, in seventh place, account for

TABLE 4
VIOLENT CONFLICTS SUMMARY
BY REGIONS AND TIME PERIODS

	1940-49	1950-59	1960-69	1970-79	Total	Percent of Category	Percent of Total
I. CONFLICT AMONG DEVELOPING COUNTRIES							
Africa	1	2	15	16	34	33.7	17.8
Asia	9	10	13	17	49	48.5	25.7
Latin American and Caribbean	3	10	4	1	18	17.8	9.4
Subtotal	13	22	32	34	101	100.0	52.9
II. CONFLICT BETWEEN DEVELOPED AND DEVELOPING COUNTRIES							
Africa	4	11	13	2	30	40.0	15.7
Asia	8	11	13	4	36	48.0	18.8
Latin America and Caribbean	0	3	5	1	9	12.0	4.7
Subtotal	12	25	31	7	75	100.0	39.2
III. CONFLICT AMONG DEVELOPED COUNTRIES							
Asia	0	2	1	0	3	20.0	1.6
Europe	2	5	4	0	11	73.3	5.8
North America	0	0	0	1	1	6.7	0.5
Subtotal	2	7	5	1	15	100.0	7.9
TOTAL	27	54	68	42	191		100.0

Note: For characterizations of conflicts see table 3

TABLE 5

TYPES OF VIOLENT CONFLICT

	Colonial Conflicts	National Integration	National Expansion	Internal Political Instability	Purely Political	Purely Political: Ideology	Political: Population Factor	Dynamic Mixed Process
I. CONFLICT AMONG DEVELOPING COUNTRIES								
Africa	1	3	—	10	7	2	11	—
Asia	1	5	1	8	11	4	15	4
Latin America and Caribbean	—	—	—	13	4	—	1	—
Subtotal	2	8	1	31	22	6	27	4
II. CONFLICT BETWEEN DEVELOPED AND DEVELOPING COUNTRIES								
Africa	20	1	—	4	4	—	—	1
Asia	12	10	2	3	1	5	—	3
Latin America and Caribbean	3	—	—	5	1	—	—	—
Subtotal	35	11	2	12	6	5	—	4
III. CONFLICT AMONG DEVELOPED COUNTRIES								
Asia	—	—	—	—	—	3	—	—
Europe	1	1	—	—	1	8	—	—
North America	—	—	—	—	—	1	—	—
Subtotal	1	1	—	—	1	12	—	—
TOTAL	38	20	3	43	29	23	27	8

TABLE 6
NON-VIOLENT CONFLICTS SUMMARY
BY REGIONS AND TIME PERIODS

	1940-49	1950-59	1960-69	1970-79	Total	Percent of Category	Percent of Total
I. CONFLICT AMONG DEVELOPING COUNTRIES							
Africa	1	2	4	4	11	25.6	9.5
Asia	6	5	1	5	17	39.5	14.7
Latin American and Caribbean	4	2	5	4	15	34.9	12.9
Subtotal	11	9	10	13	43	100.0	37.1
II. CONFLICT BETWEEN DEVELOPED AND DEVELOPING COUNTRIES							
Africa	4	6	2	6	18	37.5	15.5
Asia	5	5	4	4	18	37.5	15.5
Europe	1	0	0	1	2	4.2	1.7
Latin America and Caribbean	2	2	6	0	10	20.8	8.6
Subtotal	12	13	12	11	48	100.0	41.4*

III. CONFLICT AMONG
DEVELOPED COUNTRIES

Asia	0	1	0	0	0	1	4.0	.9
Europe	8	7	5	0	20	80.0	17.2	
North America	0	3	0	1	4	16.0	3.4	
Subtotal	8	11	5	1	25	100.0	21.6	
TOTAL	31	33	27	25	116		100.0*	

*Slight inaccuracies caused by rounding.

TABLE 7

Note: For characterizations of conflicts see table 3

TYPES OF NON-VIOLENT CONFLICT										
	Colonial Conflicts	National Integration	National Expansion	Internal Political Instability	Purely Political	Purely Political: Ideology	Political: Population Factor	Dynamic Mixed Process		
I. CONFLICT AMONG DEVELOPING COUNTRIES										
Africa	—	1	—	—	3	4	3	—		
Asia	—	—	1	—	7	6	1	2		
Latin America and Caribbean	—	—	—	6	9	—	—	—		
Subtotal	—	1	1	6	19	10	4	2		
II. CONFLICT BETWEEN DEVELOPED AND DEVELOPING COUNTRIES										
Africa	10	1	—	1	2	1	2	1		
Asia	5	1	—	—	6	4	2	—		
Latin America and Caribbean	—	—	—	—	6	4	—	—		
Subtotal	15	2	—	1	14	10	5	1		
III. CONFLICT AMONG DEVELOPED COUNTRIES										
Asia	—	—	—	—	1	—	—	—		
Europe	—	—	—	—	7	11	2	—		
North America	—	—	—	—	4	—	—	—		
Subtotal	—	—	—	—	12	11	2	—		
TOTAL	15	3	1	7	45	31	11	3		

fewer than one per cent of the total conflicts, while conflicts which are population-related account for over one third of the total non-violent conflicts.

Generally, over the past four decades, non-violent disputes among developing regions and among developed and developing countries have tended to increase in number. For the developed states, there has been a marked decrease in non-violent conflict since 1950. These trends are summarized in tables 6 and 7. Again, we caution the reader to remember that these statistics represent reliable, but small, data sets. They are presented here to indicate trends which may be deduced as the result of the data collection efforts of prominent scholars.

The Role of Demographic Factors

Of these 307 violent and non-violent conflicts, ethnic factors have had an important bearing on the nature and type of dispute involved in 47 per cent of the cases. Within the category of non-violent conflicts, 32 (or 27.6 per cent) had major ethnic factors, while 111 violent conflicts (58.1 per cent) had major ethnic factors. Population composition thus appears to be an important element in international disputes.

Detailed demographic information has been compiled for only 45 of these conflicts, but evidence regarding population-conflict links in international relations emerges from this set.⁹ This analysis, completed in 1974, continues to represent the only systematic study to date of the relationship between population and conflict. The evidence summarized here, and in the following chapter, points to the possibility of a broader basis of inference to the entire range of conflicts.

The 1974 study—which includes the relationship between population dynamics, resource availability, and technological development, on the one hand, and the behaviour of states, on the other—was completed in the year of the 1974 World Population Conference. Its purpose was to trace the international effects of different demographic, economic and military profiles. This was the first systematic study of conflicts to determine any demographic connections. It was based on comparisons of the super powers with smaller states, an examination of the actions and attributes of nations over time, and observation of the effects of sharp changes in power-related characteristics and their influence upon national behaviour. The variables intervening between population and violence, at the aggregate (macro) level, then became evident and specific linkages were delineated. One major finding of these analyses was that existence of “non-aggressive” and “aggressive” systems can be traced largely to internal demographic structures. The 1974 analysis also considered additional evidence of the internal determinants of external conflict and armament competition, and found that there were theoretical as well as empirical linkages relating population variables to conflict behaviour and to violence.

Of the demographic profiles of the 45 conflicts examined at the time,¹⁰ we found that population variables played a critical role in 38. In only seven of the 45 cases did population variables have no appreciable influence on the development or conduct of the conflict.¹¹ Additional evidence regarding the linkage of demographic factors to conflict which emerged as a result of this analysis can be summarized as follows:

- The current population emphasis on population *size* is largely misplaced and invariant over the time perspective of a specific conflict. Population *composition* and *distribution*, which generally have been ignored in popular, academic, and official circles, were shown to be of great importance in many of the conflicts examined.
- Population *change* tends to exacerbate the effects of size.
- Population *distribution* appears to be most susceptible to variation over the course of a conflict.
- Population *composition* also frequently appears to set the parameters of conflict situations.

In sum, population size, change, distribution, and composition are all linked in complex ways. Size and change factors seldom have more than background significance, because their effects are long term and indirect; any pressures generated by these two demographic factors are likely to manifest themselves through other population variables.¹²

The analysis of 45 cases demonstrated that rapid change in population dynamics—size, composition, distribution, and change—invariably generates problems that go beyond those derived from an increase in numbers alone. Assessment of the population issue must be made in quantitative and qualitative terms and placed in the context of the resources available to a society and its level of knowledge and skills.¹³

Some evidence disconfirms any relationship between density and conflict.¹⁴ However, other historical analyses, tracing the usual linkages between population variables on the one hand, and international conflict on the other, find a statistically significant casual linkage between population variables and international conflict through a set of intervening variables.

Our own detailed analysis of historical situations identified a four step process for conflict dynamics: (1) those factors that predispose toward national expansion; (2) those factors that lead to diplomatic conflicts at intersections of spheres of influence; (3) those factors that transfer diplomatic difficulties into military competitions; and (4) the more immediate factors or provocations that lead to overt violence.

THE CENTRAL PROPOSITIONS

The multiplicity of issues and linkages between population and conflict raised in the previous chapter may appear overwhelming, thus obscuring some robust and fundamental relations. For example, population variables affect conflict behaviour both directly and indirectly, and conflict processes in turn can have profound impacts on demographic structure. Despite differences in levels of analysis, disciplinary orientation, and methodological approaches, the evidence so far points to some general conclusions. The most important one pertains to the interactive effects linking population, resources, and technology.

Man is critically dependent on his physical environment. As biological organisms, human beings have certain basic needs. A growing population results in an increased demand for basic resources. The technology available to acquire such resources and render them serviceable brings about environmental and social change. The more advanced the technology available to a society, the more varied the types and kinds of resources needed. Demands are likely to increase as technological advances change social perceptions of "needs." Technological advances, therefore, alter and influence economic activity, as well as political institutions and processes. Population increases, in conjunction with developments in technology, contribute to the familiar dilemma of rising demands and insufficient resource availability.

The following synthesis captures the most prominent consensus about the relationship between population and conflict, given the evidence at hand. It is based on a study undertaken by a distinguished group of scholars from different disciplines, convened to assess the nature of the evidence to date:¹

(1) Demographic factors can lead to conflict behaviour, which in turn affects population characteristics. There is almost always an interactive and feedback relationship linking conflict to population, not a direct or linear one.

(2) Population size and growth, crowding and density, alone do not lead to violence. Population increase is not in itself the source of crowding, stress, and conflict.² Although there is some relationship between crowding and pathological conditions, there initially must be a critical mass, i.e., a population "at risk", amenable to violence or using violence as a preferred strategy.³

(3) Differential growth rates in population (size, composition, and distribution), access to resources, and access to technology contribute to the potential for conflict and to overt violence.⁴ Differentials in power variables and in demographic characteristics, such as the rate of growth of different ethnic groups, politicize population factors and make them conducive to conflict. Differential rates of growth are central to the evolution of the conflict spiral. The dynamics of conflict are imbedded in such differentials.⁵

(4) Conflict behaviour can influence demographic structure, creating changes in population variables. The existence of the conflict can itself politicize population variables. Demographic characteristics under these conditions are, or become, construed as political ones and, for all practical purposes, enter as political variables in the calculations of the antagonists. Coercive displacement of people can occur as a result of violent conflict.

(5) The age composition of a population is a powerful element in its tendencies to violence. Some evidence suggests that the younger the population and the higher the level of unemployment, the greater the propensities for violence.⁶ In a prolonged conflict, advantage is with the younger population.⁷ Age structure directly affects the political process, the political agenda, and the way in which social demands are articulated.

(6) Ethnic differences by themselves are not a direct source of conflict but ethnicity can heighten the importance of numbers in the conduct of conflict. Numerous overt conflicts since World War II have had a strong ethnic character and have involved resource scarcity.⁸ Segmental divisions accentuate perceptions of conflict.⁹ Demands for social and political equality can be based on the reality of inequality compounded by the existence of ethnic differences.¹⁰ The ethnic composition of ruling elites can create differential access to power for different ethnic groups,¹¹ and differences among ethnic or national groups can impede national cohesion.

(7) Large scale migration across national borders is often induced by political problems in sending countries and/or by economic incentives in receiving countries. The scale of such migration may have profound effects on relations among nations.¹²

(8) Social institutions can act as powerful inhibitors or absorbers of conflict. Institutions capable of adjusting to changing environments can cushion the effects of demographic changes. When institutions become outmoded, there may be an upsurge of conflict. A lag in institutional adaptation can accentuate conflict potentials.¹³ Delays in management of the changes in a physical setting can exacerbate conflict.¹⁴

(9) Population-regulating policies in themselves can create conflict. This is a phenomenon too often overlooked. For example, policies that encourage selective immigration or, alternatively, discourage mobility across national borders often create conflict. Paradoxically, such policies, which are often advocated as a means of reducing conflict or as an outcome of existing conflict, can in themselves create new population-related conflicts.

(10) Despite the importance of perceptions in assigning meaning to conflict situations, the realities of scarcities and pressures are the most powerful determinants of conflict.

Crisis Factors

The evidence in this report highlights conditions propitious for conflict. The crisis factors, listed below, are those associated with high probabilities of overt con-

flict. They are clear harbingers of violence. Without presupposing an ordering in salience or importance, elements conducive to conflict are the following:

- pressure of population on resources;
- spatial location of population in strategic areas;
- pronounced segmental divisions, whether or not they are represented in the political process;
- politicization of population “at risk,” as distinct from the incidence or prevalence of such populations;
- unequal access to power and/or resources, where the stress is on the inequality of access rather than the inequality of basic conditions;
- existence of an officially sanctioned belief system that stresses population segmentation and legitimizes barriers to integration and assimilation;
- changes in the power structure created by changes in demographic characteristics;
- conjunction of strategic issues and military alliances with population characteristics (or differences) across or within nations.

These crisis factors are among the most salient and most commonly referred to in the available evidence. They are necessary but not sufficient conditions for mobilizing population factors and engendering a conflict spiral. In the broader international context, however, certain crisis conditions exist that place everyone at risk. For example, antagonistic relations between North and South, remnants of colonial conditions, expansion of great power hegemony, and existence of great power alignments all contribute to world insecurity. Demographic factors enter directly into such configurations, for they contribute to defining relative power, numerical strength, casualty burdens, and other indicators of military capabilities. The births and deaths of today form the basis of tomorrow’s power calculations, viewed as central to every nation’s security.

In addition to these eight crisis factors, and the broader conditions of world insecurity noted above, there are some specific crisis conditions of a global nature that may trigger international political or diplomatic crises. At least three such specific conditions bear noting.

First is the collision of spheres of influence when, for instance, the market economies come to a direct clash with the centrally planned economies. The population located in areas where such intersections occur become both a target of the collision as well as a strategic element in the calculations of the antagonists.

Second are the stresses that arise as countries find it necessary to defend their trade networks. When trade becomes politicized, whether because of a chronic surplus or because of impending or chronic deficits, the political antennas rise and politicization of even the most benign issues can take place.

Third, as a result of these two conditions, the potentials for activation of the action/reaction phenomena—the antagonizing processes—are great. Arms races are the clearest manifestation of such processes, but there are others as well. When action and reaction take hold between antagonists, all their capabilities enter into their calculations and demographic factors loom large.

Intermediary Factors

The evidence indicates that there is a direct link between population variables and conflict behaviour. However, we must stress the importance of intermediary factors: the elements and processes that relate conflictual outcomes to demographic factors, or the ways in which population-related pressures manifest themselves in political or conflictual outcomes. Three sets of intermediary factors stand out. One bears upon the role of technology, the second on the role of the state, and the third pertains to perceptions, images, and ideology.

The role of technology is an essential factor in the conflict process. The higher the level of technology, the greater are the demands for resources. This conjunction increases the propensities for conflict. Technology serves as a critical countervailing variable in the sense that it serves as an impetus to increase the demand for resources as well as the tool which can expand the availability of resources. Irrespective of the disposition of populations, technological advantage in a conflict situation can, for all practical purposes, be decisive in determining the outcome. Thus a state with a strong numerical advantage will be at a disadvantage if its level of knowledge and skills is inferior to that of its adversary, even if the adversary's population is but a fraction of its own. By the same token, the extent to which population is a "problem" is almost directly related to the distribution of knowledge and skills. Thus numbers in the international arena take on different significances politically depending on the society's level of technology. The combined effects of demographic factors, resource availability and demand, and technological capability determine the true significance of population as a factor.¹⁵ Technological development in itself engenders economic and social demands which lead societies to increase their interactions internationally, exerting what is now conventionally termed "lateral pressure". In some cases this leads to conflict.¹⁶ Population figures are one element in this equation, and technology is a critical intervening factor.

The capacity of institutions to mediate conflict is intimately tied to the resources available to the various institutions and to the legitimacy of those institutions. If perceived as non-legitimate, intervention by the state to deflect conflict processes can, in actuality, accentuate them. Political analysts have argued that the cognizance of views, values, and institutional mechanisms throughout a society is essential to maintain cohesion and integration. Disjunctions of institutions hinder social cohesion and may, in effect, aggravate any latent tensions. In societies where the marketplace is the major allocator of resources, a supporting political structure is essential for the functioning of the market. In such societies, the political process is continually confronted with the task of deflecting conflicts arising from the allocations. In cases where factor availability creates conflict, the marketplace is the generator of conflict and the political process is the means of conflict containment or regulation. Thus the state itself is often a direct actor in this process, relating demographic factors to political ones or to conflictual outcomes. How the state performs may in itself be the key to determining whether population factors realize their conflict potential.

The third set of intermediary factors, namely image and perceptions, is more elusive. Perceptions are hard to elucidate and do not lend themselves to any definitive assessment. Perceptions are not simply there, they are learnt, they can be

manipulated, and they can engender a desired outcome. Political imagery, created by representatives of the state, is among the most critical in determining behaviour. Thus the creation and manipulation of symbols, in addition to whatever predispositions exist, can add an additional layer of uncertainty to processes that might link population factors to conflict. The manipulation of an old or new ideology to gain political support often entails population-related statements or symbols. Demographic characteristics are almost always central features of political ideology.

Some Connecting Insights

The foregoing can be elucidated further by insights gleaned from the social sciences.¹⁷

From psychology comes the view that the roots of conflict are twofold: first, the crossing of individual personal space boundaries by others, and second, violation of the individual psychological integrity. This violation provokes responses aimed at preventing further violations. Therefore culture is a mediator between conflict behaviour and the effects of density because stress due to crowding, which may elicit violence, is also culture-bound.¹⁸

From sociology comes the insight that the relationships between population and conflict can be described differently, depending on the measures utilized. Nonetheless, mounting evidence shows a positive relationship between crowding and some rate of pathological behaviour. Rapid social change has been associated with higher rates of violence in some contexts.¹⁹

From anthropology, and some evidence from archeology, comes the insight that congestion, loss of control, and information overload determine human responses to density. The form of that response, however, is powerfully sharpened by institutional arrangements.²⁰

Economic theory and evidence provide important reminders that scarcity is determined not by numbers alone but by the relationship of people to assets and to the technology needed to employ those assets. Violence is a sign of institutional failure. Markets can be powerful forces in regulating institutional features only if all actors agree implicitly to respond to impersonal forces and accept market allocation outcomes. Market failures can lead to profound social conflicts.²¹

From political analysis and historical inquiry comes the now self-evident consideration that wars occur at the point where the issue of "who gets what, when, and how" is no longer decided by accommodative bargaining, peaceful negotiation, or even the exchange of coercive threats, but by overt military activity.²²

Government Policy

One function of government is to articulate priorities and establish these by influencing allocations of technology, resources, and labour, thus shaping national capabilities. Governments directly influence social activities by the spending of monies and by establishing systems of incentives and disincentives. What population demands are and how they are met, or proposed to be met, depends on the level of technology and the resources that are directly available within national boundaries. Conflict and competition arise, both domestically and internationally, when

efforts to meet demands are frustrated or constrained by existing capabilities or by the action of others. In the entire calculus, the structure of a society's demographic characteristics provides the most basic constraints within which governments operate.

Thus how groups, societies, or nations behave towards one another is determined largely by their demands—defined by the population/resource/technology relationship in each particular case—and by their capabilities, the instruments of the state, and the power of the society.

CONFLICT AND DEVELOPMENT

Despite the multitude of orientations to developmental issues and the differences of views regarding international priorities, there is universal agreement that conflict and violence constitute two major depletants of resources, detract from ongoing developmental efforts, and reduce prospects for peace and international cooperation. It also generally is agreed that there are conditions under which resorting to military options is an issue that lies within a country's own national discretion and that exercising this option is considered one of the tests of nationhood. However, there is an increased international realization of the high overall cost of conflict and warfare, and of the underlying conditions that have led to an upsurge in the incidence of conflict.

In the broader development context, population and conflict share one important characteristic: an increase in either factor places burdens on an already strained internal development agenda with regard to investment and consumption. Both investment and consumption must be reduced during periods of prolonged conflict. An increase in *both* population and conflict not only contributes further to such burdens, but adds reciprocal pressures: population changes may lead to conflict behaviour, and conflict, in turn, may induce population dislocation. The interactive effects inevitably strain a country's development agenda.

In the realm of the consensual, there is little that ties the international community together, but perhaps one dynamic that transcends political, ideological, and economic differences among nations is the struggle for self-reliance. It is generally agreed that self-reliance, as a strategy and as a goal, is an essential factor which will influence international politics in the 1980s. National self-reliance has emerged as the keystone of the New International Economic Order, a keystone that has been supported by the industrial countries. An essential component of national self-reliance is the population-resource-technology balance of each country. The basic tenet of the New International Economic Order is the improvement of these three individual aspects of self-reliance. The possibilities of improving this balance, and therefore the economic prospects of individual countries, are sharply reduced by perpetual conflict. Conflict in turn is complicated by demographic factors. Thus possibilities of understanding the dynamics of conflict are sharply reduced by ignoring their demographic elements. Demographic factors may lead to consequences that far exceed the limits of the fertility-mortality relationship. These consequences may extend far beyond conventional realizations of the burdens on social systems, for they may, and often do, constitute the most critical determinants of conflict and violence.

The Role of Resources and Technology

There has been a tendency in the social sciences and demographic literature to regard sheer means of subsistence as the critical variable defining the population problem. Size is then viewed in relation to available food. There is also the view that food deprivation will automatically increase propensities for conflict and that such propensities will automatically intensify global cleavages.¹ Although there is some empirical validity to such an equation, as is sometimes manifested by food riots in different parts of the world, to assume that sheer food deprivation will automatically trigger violence is neither theoretically sound nor empirically valid. There are instances too numerous to recount where sheer deprivation leads to starvation, not to riots or to violence. Furthermore, it is difficult to establish a link to organized military conflict.

There is powerful evidence, however, that points to the importance of intervening variables—those connecting population to conflict and violence—which does allow for sound linkages between population variables and deprivation variables. These intervening linkages refer to the contents of deprivation, namely those factors perceived by the parties in question as wanting. Among the most critical of these variables are resources and technology. The overall resources of a country, in terms of assets and liabilities, define social requirements and, from an economic perspective, demand in terms of willingness to purchase. Resource scarcity is the most dominant theme in the scholarly literature concerning the dynamics of deprivation which lead to conflict.

The second set of variables is concerned with technology, that is knowledge and skills, and connects population and resources with conflict in yet another way. The majority of the 307 post World War II conflicts referred to previously are disputes among unequal partners in terms of technological capability. The higher the level of technology in a society, the greater are both the society's demands, in terms of mineral and energy resources, and its capabilities for meeting those demands. Thus, technology facilitates international exchanges. It also differentiates among nations, ranking some as more technologically advanced than others. The art of warfare is the most obvious manifestation of technology, and the one which can most readily differentiate between nations.² Therefore, differences in technological capability can lead to cooperation or conflict. Furthermore, in the event of conflict, technological differentials may contribute to the nature of the outcome.

Critical Interactions

These observations highlight the interactive nature of population-conflict relationships. Although the predominant view in both academic and policy-making circles concerning the critical role of population size may be attractive in its simplicity, size alone is seldom either a determinant or a consequence of conflict. Population size becomes a critical factor only when two states are at relatively similar levels of economic and technological development and where their resource endowments are alike. In all other cases demographic variables other than population size are paramount.

While demographers have focused on rates of growth in their attempts to relate population variables to overall social change, other social scientists have placed greater emphasis on the intermediary variables—resources and technology. To untangle the population-conflict relationship it is essential to look at the role that a society's resources might play in accentuating or reducing the consequences of its changing demographic structure.

The most impressive part of the puzzle linking population and conflict is the intricacy of the level of analysis. Man, society, the state, and the international system all interact to generate conflict. The conventional definition of the population "problem" is tied to numbers—too many individuals and too rapid a rate of growth. The more complex definitions of demographic problems are tied to society and institutions, namely the ability (or lack thereof) to adapt to changing numbers and to added pressures. In the international sphere, the population "issue" is tied to development, obstacles to growth, and perpetuation of social inequalities. At each of these levels—the individual, the state, and the international system—evidence points to some pervasive effects of the relationship between numbers and their social and political consequences.

Critical Issues for the Future

Several issues bearing on the hypothesized relationship between population and conflict behaviour require greater elucidation. The first issue is the role of values, and changes in values, induced by rapid population change. Attitudes, perceptions, and social preferences do adjust to demographic changes and these adjustments might have large-scale social consequences. For example in this report we have noted two sets of value adjustments: those manifested in institutional change and those tied to the generation of new demands in response to perceived scarcities. However, the conflict-absorbing value changes have not been examined, partly due to the absence of consistent evidence and partly due to the difficulties in tracking these changes.

Adaptive social changes created by conflict and violence also have not been elucidated fully. We have taken as a point of departure the premise that conflict is disruptive, and that demographic changes that lead to conflict are also disruptive. However, we can think of instances in which the onset of conflict can, and does, lead to beneficial behaviour for the social group in question. By at least flagging the issue, we can reduce potential misunderstanding of our analyses. There is also the related phenomenon of institutionalized conflict, which appears over time and across cultures, and is used as a means of containing the scope of the instability of violence.

We have not delineated the conditions that make conflict socially adaptive rather than disruptive. For example, we have not discussed the phenomenon of technological innovation which is the direct or indirect result of conflict. Yet we do know that in many areas of economic and social activity, the existence of conflict and stress is a major motivation for technological innovation. This type of innovation may or may not exacerbate the effects of demographic changes. We are uncertain about the effects at this time because we lack indisputably clear evidence.

Another omission concerns ethnicity. Despite the large literature on ethnicity, we do not have clear evidence concerning the policies that exacerbate or relieve ethnic conflicts or reduce inequalities among ethnic groups. Ethnicity, as a population characteristic, harbours many indicators of social differences. No one has yet succeeded in pinning down those attributes of ethnicity that by themselves produce conflict. It may be that ethnicity per se has no bearing on conflict behaviour, but that in a conflict situation characteristics of ethnic groups become important to the contending parties and thus bring the issue into focus.

The cultural meaning of population variables as they affect conflict are also touched upon, but not resolved in this report. Population variables themselves can be interpreted differently in different cultural contexts. Thus what is viewed as "crowding" in one culture, may not be perceived as such in another culture.

The political manipulation of population variables is one of the most critical issues of our time. Direct governmental intervention to preserve or change demographic characteristics is a strategy used by almost every country. The intended and unintended consequences of such policies are not fully documented anywhere. The evidence is only partial. Although there are several surveys of the effects of "population policies," reviews of national policies, and analyses of policies designed to encourage or prevent immigration, the consequences of governmental interventions are not well known. Conflict potentials associated with official government policies still remain to be analyzed. This issue, as well as the broader role of government in influencing demographic processes, is beyond the scope of this report.

The refugee situation most clearly illustrates the role of governments in exacerbating demographic problems. Refugees, as victims of conflict between two countries, can easily become the direct object of further manipulation. Countries that intentionally, or otherwise, host refugees might find that the refugee problem creates disputes in areas where none previously existed, or politicizes relations between nations, or within societies, where politicization has not prevailed earlier. Increasingly societies hosting refugees find it difficult to maintain their existing levels of social and economic well-being. Some refugee flows are the result of deliberate policies; others are accidental. In both cases, social conflicts are almost always exacerbated by such flows, and in almost all cases governments play a direct role in the creation of refugees, in their absorption, or in their accommodation.

Another missing theme in the current evidence pertains to the effects of political conflicts in creating demographic changes which, in turn, create further social inequalities. Inequalities can be created by political conflict and by rapid population growth (or change, more broadly defined). How rapid population growth creates inequalities that intensify political conflicts which, in turn, result in government intervention to manipulate demographic characteristics, remains unclear.

Finally there is the issue of conflict under conditions of "stabilized" population growth. This issue bears most directly on the social, economic, and political adjustments of advanced industrial societies. An aging population may have a direct impact on productivity and efficiency. Adjusting social norms and political policies to accommodate demographic changes of this type is a large-scale experiment confronting almost every advanced industrial society. There are few countries

that, historically, have manifested impressive rates of economic growth, international visibility and activity, and technological development under conditions of stable population growth. No one has yet fully explained how some countries have been in the rank of great powers historically, and among the rank of advanced industrial countries today, without the impetus and market size associated with a growing national population.³ The use of foreign labour, from the colonies, and later the ex-colonies, has at some points undoubtedly played a major role. In some industrial countries today there is serious concern expressed in official circles over the economy's ability to adjust to a changing demographic structure. The aging of the population, in conjunction with extensive illegal migration, has become a critical issue of public policy.

POPULATION DYNAMICS AND NATIONAL SECURITY

The central propositions in this report, in conjunction with the crisis factors and the intermediary factors, have major implications for the security of nations. This concluding chapter reviews some security aspects of population issues.

Conventional concepts of national security are intimately tied to military capacity. Investments in the military are viewed almost everywhere as both the necessary and the sufficient conditions for assuring security. And if the size of global military expenditures can be used as an indicator of commitment to this logic, then the international community as a whole is indeed deeply committed. World military expenditures, including defense budgets, grew from \$380.5 billion in 1970 (in 1978 dollars) to \$418.9 billion in 1975 and \$446 billion in 1979. In this kind of range one would be hard pressed to declare if these are "big" or "small" numbers; some would argue that the change is modest given the "real" nature of the threat, however defined. Arms exports rose gradually from \$1.6 billion in 1970 to \$3.6 billion in 1973, and then exploded nearly fourfold, holding relatively constant thereafter until 1979 (in fact declining in real terms). Estimates for 1979, place arms exports at \$14.4 billion; the figures are higher for the early 1980s. These figures include commercial purchases as well as government-to-government transactions. Overall, then, one can safely say that world commitment to security, defined thus, is considerable.¹

But such allocations and investments seldom are realized directly, in the sense that their return rests on the threat factor and attendant deterrence. Since they do achieve a deterrence they are, in this sense, effective. Once arms are utilized, however, the investment is lost because new orders must be placed. Governments, almost without exception, calculate that they do obtain a "good return" on their investments in terms of the security factor, and it is difficult, indeed almost impossible, to assign a monetary value to a nation's security. Therefore the amounts committed are notional and deemed minimal. By the same token, it is difficult to conclude that "real" security is gained by such investments. It is equally difficult to conclude that security has *not* been gained. At best one can question the effectiveness of such investments.

The security of governments, as distinct from nations or states, generally is tied closely to control over the instruments of power and to the legitimacy of such control. A regime that governs purely by force, through the use of coercion, selects the most costly means of exercising control. A regime that governs by the extraction of voluntary support from its members utilizes the least costly means of governance.

Intimately tied to the generation of support is the ability to meet demands. In an environment of security (however defined or perceived), the meeting of demands is a different task. Extending social services and attendant facilities, an integral part of development strategies of the 1980s, must also be interpreted as a strategy for increasing government security and enhancing prospects of regime survival. Such investments are an integral part of the internal security calculation. And investments that touch people most directly are those perceived to be most closely tied to the government's activities as "donor." The returns on such investments are twofold: the expected benefits associated with the expenditures and the anticipated benefits associated with enhancing perception of the government's legitimacy and responsiveness to demands. It is perhaps the ultimate irony that, at this point in time, many governments find themselves in the dual position of creating perceptions of "need" while at the same time forming the population's definition of their "demands."

National Security and International Population Assistance

International population assistance, (multi-lateral or bilateral), is predicated on several distinct, though interconnected, motivations. Foremost among these are, of course, humanitarian concerns for improving the quality of life. There is also the motivation of containing internal disruptions due to the population "explosion" which, in certain areas, threaten the entire social fabric. So, too, is the motivation of containing such problems within nations and thus reducing possibilities of cross-national impacts. At the root of all these motives is the desire to enhance prospects for development. Yet today population assistance continues to be a miniscule fraction of all development assistance and a microscopic proportion of security-related investments defined in conventional terms.

From 1970 to 1979, total aid disbursements to developing countries increased annually. Government assistance generally accounted for around 35 per cent of this amount, international agencies constituted about 10 per cent, and private sector sources contributed the remaining 55 per cent. Private sector involvement increased greatly after 1974.

Of the total assistance, concessionary aid has generally averaged between 35 and 38 per cent of the total assistance to developing countries. Concessionary aid is only administered by governments and international agencies. Aid from international agencies increased from 12 percent of all concessionary aid in 1970, to 21 percent in 1979.

Non-concessionary flows come largely from private sources. These flows have generally been increasing since 1970, although there was a decline in 1974 and 1979. Between these two years, private, non-concessionary flows increased roughly 300 per cent. This growth is impressive, but the amounts are thought by some developing countries to be too modest; others object to the terms on which it is extended.

During this period population assistance was truly marginal. While the amount increased from 1970 to 1980, the actual rate of growth declined gradually, with the exception of a burst of aid in 1979. Table 8 presents some comparative

data on these trends. While international population assistance has increased to some extent over the past decade, it continues to be only a small proportion of total development aid. For example, twenty years ago when external development aid was approximately \$5 billion, assistance for population issues was only 0.1 per cent of that amount. Between 1970 and 1980, international population assistance expanded greatly. However, population assistance today is still less than 2.0 per cent of all development aid. The international community now calls for a target of \$1 billion for population aid by 1984.²

International population assistance is channelled either through bilateral, multilateral or non-governmental sources. The largest source of multilateral population assistance is the United Nations Fund for Population Activities (UNFPA). Established in 1967 as a Trust Fund for Population Activities, the UNFPA became operational in 1969. While remaining neutral with regard to the specific population policy of the recipient countries, the Fund has developed a multi-sectoral programme of assistance over the years. At the end of 1982, UNFPA was assisting close to 1700 projects in 141 developing countries and territories.

Security and Self-Reliance

The thrust of population aid has changed somewhat over time, from a family planning orientation to supporting broader initiatives than fertility regulation, such as measures in the context of maternal and child care services, and has expanded to include support for activities related to other demographic variables. But the scope remains rather restrictive when viewed in the social context of development. The international community's view, as expressed in documents supporting population assistance, seems to confine population variables to their strict demographic context without sufficiently acknowledging their pervasive, society-wide implications. While the economic consequences of rapid population growth and change have been gradually acknowledged at both national and international levels, there continues to be a notable lack of appreciation of the importance of demographic factors to political cohesion and overall stability and integration. The conflict-producing dynamics imbedded in particular manifestations of population problems and resource constraints are not yet regarded as being a legitimate aspect of the world's population "problems". This omission, or lag in recognition, is a serious mistake. The social, economic, and political influences of population variables cannot be decomposed or segregated from one another. A society's demographic structure is the most basic and essential element defining the parameters within which governments exercise authority.

The developmental agenda of the 1980s should be broader, more comprehensive, and more complex than it has been in previous decades, if only because of a growing realization of the complexity of the developmental process. The sheer magnitude of the development agenda for the 1970s may have necessitated a reduction in the concern for population issues, but the impacts of demographic factors—size, composition, distribution, and change—are such that they touch all aspects of development.

TABLE 8

GLOBAL EXPENDITURES ON DEVELOPMENT AND ARMS TRADE

(in billion current dollars)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980 ^P
All Aid to Developing Countries ¹	19.08	20.76	22.39	30.61	33.92	53.35	57.06	63.39	79.60	83.86 ^P	88.95 ^P
— by governments ²	8.47	9.07	9.52	11.71	15.67	20.22	20.88	22.14	26.56	30.72 ^P	36.55 ^P
— by international agencies	1.76	2.23	2.39	3.28	4.66	6.42	6.55	7.91	9.41	10.36	12.51
— by the private sector ³	8.85	9.46	10.48	15.62	13.59	26.71	29.63	33.34	43.63	42.78	39.89 ^P
Concessionary Aid to											
Developing Countries	8.13	9.14	9.45	11.53	14.94	20.06	19.28	20.27	23.44	28.91	33.46
— by governments	7.06	7.81	8.06	9.53	12.09	16.22	15.41	15.30	17.44	22.71	25.75
— by international agencies	1.07	1.33	1.39	2.00	2.85	3.84	3.87	4.97	6.00	6.20	7.71 ^P
— by the private sector	—	—	—	—	—	—	—	—	—	—	—
Non-Concessionary Flows	10.95	11.62	12.94	19.08	18.98	33.29	27.78	43.12	56.16	54.95 ^P	55.49 ^P
— by governments	1.41	1.26	1.46	2.18	3.58	4.00	5.47	6.84	9.12	8.01 ^P	10.80 ^P
— by international agencies	.69	.90	1.00	1.28	1.81	2.58	2.68	2.94	3.41	4.16	4.80 ^P
— by the private sector	8.85	9.46	10.48	15.62	13.59	26.71	29.63	33.34	43.63	42.78	39.89 ^P
Population Aid ⁴	.15	.22	.27	.32	.39	.43	.49	.54	.61	.80	.88
— by governments	.08	.13	.16	.17	.18	.20	.24	.28	.35	.40	.41
— by intergovernmental organizations	.07	.03	.05	.08	.13	.16	.18	.18	.21	.29	.34
— by non-governmental organizations	—	.06	.06	.07	.08	.07	.07	.08	.10	.11	.13

Arms Exports ^s	1.60	1.80	3.60	4.90	11.20	14.40	14.60	12.80	14.80 ^p	14.40 ^p
Expenditure ^e	380.51				418.94	422.86	433.72	439.95	446.16	

^p = preliminary

^sconcessional + non-concessional

ⁱincludes "bond lending"

^dDFI + banks + private export credits

^ggross total; includes double counting via intermediary recipients (i.e., funds from governments to organizations bound for developing countries) which may reduce totals by as much as 40 percent.

^ccommercial + government-to-government

^ein constant 1978 dollars and 1978 prices

Sources: Organization for Economic Cooperation and Development, Development Assistance Committee, *Development Cooperation: 1981 Review*, Paris: OECD, 1981.

Margaret Wolfson, "Population and Poverty," *OECD Observer*, no. 95 (1979), p. 20.

Stockholm International Peace Research Institute, *SIPRI Yearbook 1980*, pp. 19, 67.

Population issues, defined by the realities and priorities of the 1960s and 1970s, may no longer be appropriate in the international context of the 1980s. The large-scale economic, social, and political changes that have taken place over the past decades may well have transformed demographic realities and their implications for international adjustment, development, and cooperation. The definition of population problems of the past decade, while undoubtedly correct in its own right, may well be superseded by the very realities that have come into being due to these problems.

Demographic issues have consequences far greater than previously envisaged by either policy-making or academic circles. Excessive focus on narrowly defined security concerns will only heighten unresolved demographic threats in the future and limit the true security of regimes and nations. The prospects for development, if not survival, in many parts of the world are tied to a broader recognition of the complex demographic issues that will define the realities of the 1980s.

For a nation, security in the comprehensive sense encompasses the ability to adapt to a changing environment and to adapt at costs that are deemed acceptable and affordable by the society. Such adaptation begins most fundamentally with the meeting of social demands. These demands are defined initially, and most critically, by the configuration of the population and its overall characteristics. Thus investments in population-related programmes that go beyond immediate interventions in fertility and mortality are, in effect, investments that enhance prospects for social adaptation and, by extension, for national security in its broader, more pervasive sense.

Paths to Security and Peace

Causes of conflict are complex; the paths to war are many. This report focuses on some basic roots of conflict—those tied to population variables and their connections to resources and technology. The evidence compiled comes from multiple disciplines of research analysis and social theory. What in closing can be said about peace and security?

The paths to security—in terms of absence of war and improvement of the quality of life on this earth—are many. The approach tied to arms control and disarmament is generally the most well known. There the focus is on deterrence, intents, and military hardware. Its advantages lie in highlighting the role of weapon systems and the assessment of parties in conflict. Its disadvantages lies in its almost total divorce from the broader social context of deterrence. Social pressures toward conflict are ignored, thereby limiting the usefulness of this particular “path to peace.”

The second approach to security is the path proposed by the findings on peace research, a growing field of inquiry with an international representation of scholars and scholarship. Here the emphasis is on processes leading to conflicts and arms races, and on conflict-reducing processes. The central focus is on overt manifestations of conflict, with an emerging focus on roots of conflict. Again as with the arms control and disarmament path, but perhaps to a lesser degree, the deeper social and demographic underpinnings of security are not addressed.

A third approach to security is the diplomatic approach, which focuses on direct talks between national leaders and representatives of hostile parties. Diplomacy, by definition, is an attempt to manage difficult situations at the point of official level of representation. This path to peace—through discussion and attempts to find common grounds to avert conflict and war—by definition ignores the social basis and roots of conflict. It suffers from the same narrow perspective adopted by the arms control and disarmament path. The reluctance of diplomacy to address demographic issues is precisely the factor that limits the usefulness of this approach as a comprehensive path to peace.

Each of these paths to security is fundamentally flawed by ignoring the base of social interaction, namely people. The demographic underpinnings of conflict and violence must be understood in order to develop viable strategies for reducing prospects of war, averting hostile stances, and reducing probabilities of violence. Unless the casual dynamics of interactions that lead to conflict are fully understood, the strategies for peace will continue to be flawed.

The complexity of population dynamics—population size, composition, distribution, and change—are paralleled by the complexity of conflict dynamics in terms of the various levels of conflict and ways in which hostilities can be manifested. Conflict between individuals reflects processes that are intensely interpersonal and psychological in nature, involving a sense of personal space and concern for protecting personal security. Conflict between groups reflects social interactions when social security is threatened and overt hostility is regarded as a necessary means of restabilizing the security of the group. Conflict in marketplaces or economic competitions are designed to protect or increase the group's (or state's) access to scarce commodities. Political conflict entails competition over power or fears of threats to security. Any conception of security—the absence of overt conflict, peace, enhancing the quality of life—must always focus on people. An explicit recognition of the centrality of demographic variables is the critical dimension in any strategy for security.

Conclusion: A Necessary Strategy for Security

Security at the international level entails ensuring and enhancing the quality of life for all. Perceived threats endanger peace, for they provide both logic and necessity for adopting postures that, while designed to establish security, in actuality contribute to insecurity.

This report has stressed the role of the population factor, in relation to other essential elements of social interaction, in the dynamic processes that result in overt conflict. The conclusion that attention to the demographic elements is essential for any strategy for security emerges from the evidence synthesized in this report. It is a call for a peace strategy that recognizes, incorporates, and relates to the most basic element in the conflict spiral—the population factor. A viable strategy for security must, by necessity, begin with demographic variables and acknowledge their critical role in contributing to conflict. If we begin with the correct premises, the prospects of devising and adopting an appropriate strategy for security are greatly enhanced.

NOTES

Chapter 1

1. United Nations Fund for Population Activities, *Population Facts at a Glance* (New York: UNFPA, 1 November 1982). Shows the world population to be growing at a current rate of 1.70% per year, or a "doubling time" of 41 years. This decline from the 1975-1980 level of 1.94 signals a trend toward moderation in the rate of world population growth, but does not indicate a lessening of annual increments of absolute numbers.
2. The first major review and assessment of the problems associated with rapid population growth was included in *Rapid Population Growth: Consequences and Policy Implications*, a report of the U.S. National Academy of Sciences (Baltimore, Md.: The Johns Hopkins University Press, 1971). A fairly comprehensive review of refugee issues is found in Stein, B.N. and S.L. Thomas, "Refugees Today," *International Migration Review*, v. 15 (1981).
3. See Mauldin, W.P., N. Choucri, F.W. Notestein, and M. Teitelbaum, "A Report on Bucharest: The World Population Conference and the Population Tribune," *Studies in Family Planning* (1974), and United Nations, *The World Population Debate: Dimensions and Perspectives*, papers of the World Population Conference, Bucharest, 1974, v. 1 & 2 (New York: United Nations, 1975).
4. Mauldin, W.P., et al, "A Report on Bucharest".
5. A survey of the recommendations of these conferences supports this assertion.
6. *International Conference of Parliamentarians on Population and Development*. Colombo, Sri Lanka, 28 August - 1 September, 1979 (New York: UNFPA, 1979).
7. *International Conference on Population and the Urban Future*, Rome, Italy, 1-4 September, 1980 (New York: UNFPA, 1980).
8. *Asian Conference of Parliamentarians on Population and Development*, Beijing, China, 27-30 October, 1981 (New York: UNFPA, 1981).
9. Hauser, P.M. (ed.), *World Population and Development: Challenges and Prospects* (New York: Syracuse University Press, 1979).
10. *Global 2000 Report to the U.S. President: Entering the Twenty-First Century* (Oxford: Pergamon Press, 1979).
11. *North-South: A Programme for Survival* (Cambridge, Ma.: The MIT Press, 1980).
12. Ibid.
13. President's Commission for a National Agenda for the Eighties, *A National Agenda for the Eighties* (Washington, D.C.: Government Printing Office, 1980).
14. Phrase borrowed from: Richardson, L.R., *Arms and Insecurity: A Mathematical Study of the Causes and Origins of Wars* (Pittsburgh, Pa.: Boxwood Press, 1960).
15. See Choucri, N., *Population Dynamics and International Violence* (Lexington, Ma.: Lexington Books, 1974) for evidence.
16. See Choucri, N., *Population Dynamics: Choucri, N. and R.C. North, Nations in Conflict: National Growth and International Violence* (San Francisco, Ca.: W.H. Freeman, 1975); and Falk, R.A. and S.S. Kim (eds.), *The War System: An Interdisciplinary Approach* (Boulder, Co.: Westview, 1981).
17. Choucri N. and North, *Nations in Conflict*.

Chapter 2

1. UNFPA, *Population Facts*.
2. Ibid.
3. Ibid, p. 2.
4. Ibid, p. 2.
5. Ibid, p. 2.
6. See, for example, Choucri, N., *Migration in the Middle East: Trends and Transformations* (Cambridge, Ma.: MIT Technology Adaptation Program, 1983).
7. UNFPA, *Population Facts*, p. 9.
8. Ibid, p. 8.
9. See Enloe, C.H., *Ethnic Conflict and Political Development* (Boston: Little, Brown & Co., 1973).
10. See Salas, Rafael M., *The State of World Population 1982* (New York: UNFPA, 1982).
11. Ibid.
12. World Fertility Survey data from twenty-one developing countries are included in UNFPA, *Population Facts*, p. 9.
13. UNFPA, *Population Facts*.

Chapter 3

1. The literature on conflict and conflict analysis is extensive in political science. See, for example, Bloomfield, L.P. and A.C. Leiss, *Controlling Small Wars: A Strategy for the 1970s* (New York: Alfred A. Knopf, 1979); Butterworth, R.L. and M.E. Scranton, *Managing Interstate Conflict, 1945-1974: Data with Synapses* (Pittsburgh, Pa.: University of Pittsburgh, Center for International Studies, 1976); Farris, L., H.R. Alker, Jr., K. Carley and F.L. Sherman, *Phase/Actor Disaggregated Butterworth-Scranton Codebook*, working paper (Cambridge, Ma.: MIT, Center for International Studies, 1979); Kende, I., "Wars of Ten Years (1967-76)," *Journal of Peace Research*, v. 15 (1978) pp. 227-242; Kende, I., *Local Wars in Asia, Africa and Latin America, 1945-1969* (Budapest: Hungarian Academy of Sciences, Center for Afro-Asian Research, 1972); and McClelland, C.A. and B.D. Haggard, "Conflict Patterns in the Interactions Among Nations," in *International Politics and Foreign Policy*, J.N. Rosenau (ed.), 2nd. ed. (New York: Free Press, 1969) pp. 714-717, as examples of conflict situations. For measurement problems, see Choucri N. and North, *Nations in Conflict*. For analysis of events and actions, see Azar, E.A., "The Analysis of International Events," *Peace Research Reviews*, v. 4 (1970).
2. Butterworth, R.L., *Moderation from Management: International Organizations and Peace* (Pittsburgh, Pa.: University of Pittsburgh, Center for International Studies, 1978). The author is grateful to Hayward R. Alker, Jr., for making available the basic data upon which the following analysis is made.
3. Butterworth, R.L., *Moderation from Management* and Farris, L. et al, *Phase/Actor*.
4. Farris L., et al, *Phase/Actor*.
5. Butterworth, R.L., *Moderation from Management* and Farris, L., et al, *Phase/Actor*.
6. Choucri, N. *Population Dynamics*, especially chapter 9, and Choucri, N. and North, *Nations in Conflict*, present some illustrations.
7. Based on Butterworth, R.L., *Moderation from Management*, drawing on Bloomfield, L.P. and Leiss, *Controlling Small Wars*, and recoded by Choucri.
8. This refers to conflict among developing countries.
9. Choucri, N., *Population Dynamics*.
10. Ibid, Table 8-1, p. 92.
11. Ibid, p. 98.
12. For a complete summary of the results from

the 1974 Choucri study, please refer to Choucri, N. *Population Dynamics*, Chapter 8, "Demographic Roots of International Violence: Local Conflict in Developing Areas," pp. 89-113.

13. See Choucri, N., *Population Dynamics*, Chapter 12, "Population Dynamics and Violent Conflict: An Empirical Synthesis," pp. 197-209.
14. See, for example, Biemer, S., J.D. Singer and U. Luterbacher, "The Population Density and War Proneness of European Nations, 1816-1965," *Comparative Political Studies* (October, 1973).

Chapter 4

1. The essays upon which the evidence in this chapter is based are interdisciplinary and comprehensive. See Choucri, N. (ed.), *Multiple Dimensions of Population Conflict: Theory and Evidence* (in press).
2. Ibid, Proshansky, Chapter 4.
3. Ibid, Kelly and Galle, Chapter 5.
4. Ibid, Kelly and Galle, Chapter 5; and North, Chapter 8.
5. See also recent work in Choucri, N., *Multiple Dimensions*: Bobrow, Chapter 2; Harris and Samaraweera, Chapter 6; Azar and Farah, Chapter 7; and North Chapter 8.
6. Choucri, N., *Multiple Dimensions*, Kelly and Galle, Chapter 5.
7. Ibid, Bobrow, Chapter 2.
8. Choucri, N., *Population Dynamics*.
9. Ibid.
10. Choucri, N., *Multiple Dimensions*, Azar and Farah, Chapter 7.
11. Ibid, Bobrow, Chapter 2; Kelly and Galle, Chapter 5; and Azar and Farah, Chapter 7.
12. See Choucri, N., *Population Dynamics* and Choucri, N. *Multiple Dimensions*.
13. Choucri, N., *Multiple Dimensions*, see Cohen, Chapter 3.
14. Ibid, see Proshansky, Chapter 4.
15. Ibid, see North, Chapter 8.
16. Choucri, N. and North, *Nations in Conflict*.
17. The following observations constitute highly simplified summaries of insights that bear on the issues at hand. They are based on the syntheses of evidence from respective fields prepared by Proshansky, Cohen, Kelly and Galle, Harris and Samaraweera, and North. The selection of issues noted here has been made by Choucri.
18. Choucri, N., *Multiple Dimensions*, based on survey by Proshansky, Chapter 4.

19. Ibid, based on survey by Kelly and Galle, Chapter 5.
20. Ibid, based on survey by Cohen, Chapter 3.
21. Ibid, based on survey by Harris and Samara-weera, Chapter 5.
22. Ibid, based on survey by North, Chapter 8.

Chapter 5

1. See United Nations, *The World Population Debate*; and Mauldin, W.P., et al "A Report on Bucharest".
2. See Choucri, N., and North, *Nations in Conflict*.
3. The historical position of countries like France in the 18th and 19th centuries continues to puzzle analysts, given that country's stable population over long periods of time.

Chapter 6

1. These data are based on Organization for Economic Cooperation and Development, *Development and Cooperation 1980* (Paris: OECD, 1980), P. 177; Wolfson, M., "Population and Poverty," *OECD Observer*, n. 95 (1979) p. 20; Stockholm International Peace Research Institute, *SIPRI Yearbook* (1980), pp. 19, 67; and private communications from the United Nations Fund for Population Activities to N. Choucri, 1982.
2. UNFPA, *Population Facts*, p. 13.