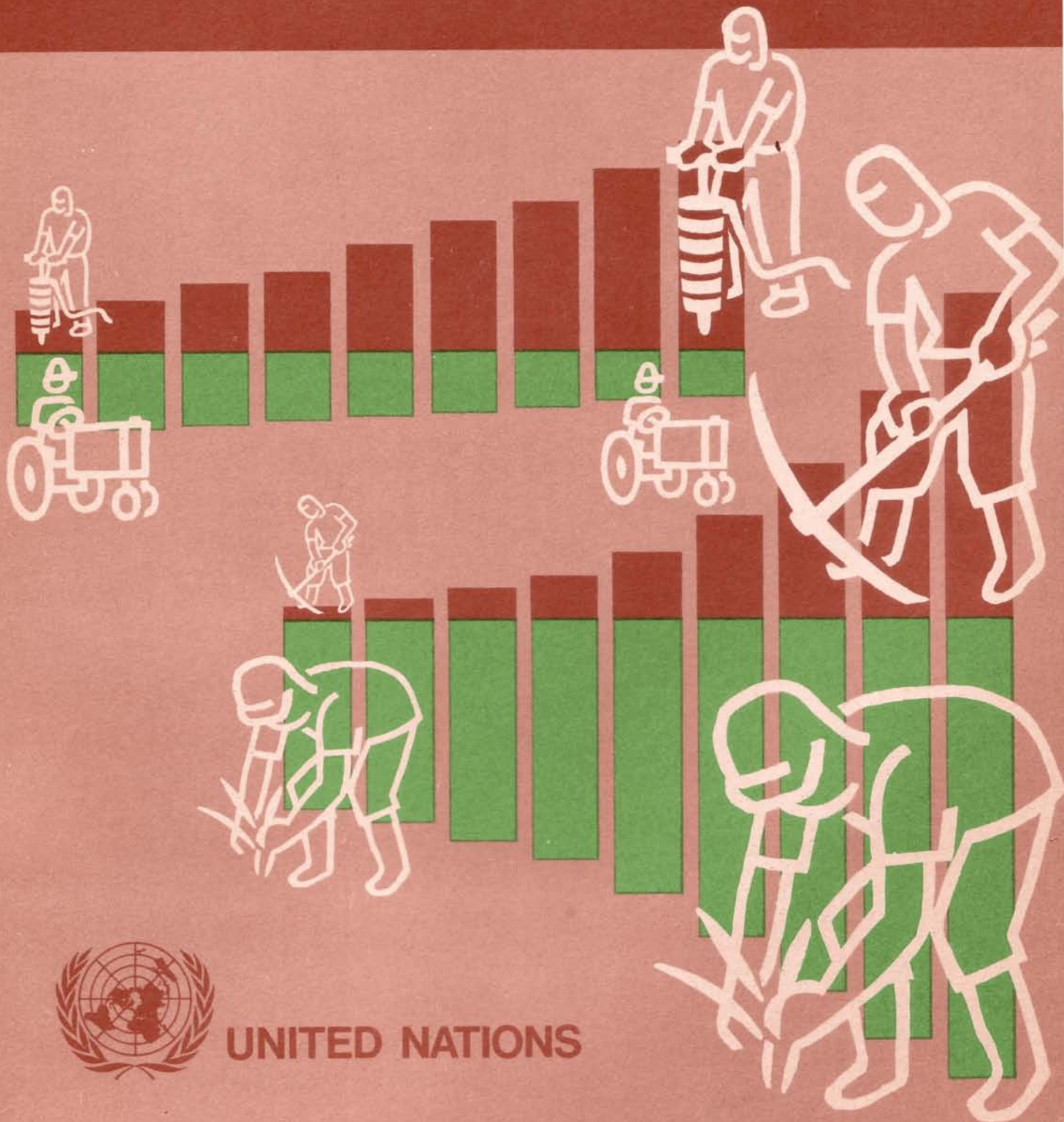# GROWTH OF THE WORLD's URBAN AND RURAL POPULATION, 1920-2000

UNITED NATIONS

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Growth of the world's urban and rural population, 1920 - 2000

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NOTE

Symbols of United Nations documents are composed of capital letters combined with figures. Mention of such a symbol indicates a reference to a United Nations document.

PREFACE

Pursuant to recommendations of the Population Commission at its ninth, tenth and eleventh sessions, endorsed by the Economic and Social Council,[1] the United Nations is surveying demographic conditions and trends in the world in their principal aspects.[2] This study is the first comprehensive report to present world-wide comparisons in rates and proportions of growth in urban and rural population.[3] It includes the growth in urban and rural population as variously defined in national censuses and in the population of localities grouped by population size, in an endeavour to arrive at comparable estimates.

There are few countries in the world where problems are not being encountered in the context of rising proportions of the population in urban localities, or in the rapid growth of big cities, some of them attaining sizes unknown in past history. A quantitative world-wide survey of the phenomenon has rarely been undertaken in view of the great complexity resulting from statistics of widely varying quality and definition. The problems resulting from the diversity of statistical standards are discussed extensively in this report.

Estimates of urban and rural population, of population in agglomerations smaller or larger than 20,000 inhabitants, and in cities of various specified size classes are

compared and related to each other for dates from 1920 to 1960 and projected to 1980, tentatively also to the year 2000. The text of the report compares the estimates for more developed and less developed major areas of the world, and for the combination of more developed and less developed regions. Additional estimates for a greater number of regions and for individual countries are presented in the annexes, together with statements on methods by which the estimates have been derived.

Full acknowledgement is made of the deficiencies in the data upon which the estimates are based and the possibility of considerable margins of error in the estimates themselves. Many arbitrary decisions had to be taken in the endeavour to arrive at comparable estimates. Admittedly, these are debatable and leave much scope for improvement on the basis of more detailed research.

A major question in producing this report was whether to publish these more or less tentative estimates or to invest more time and effort in their further refinement. It was concluded that the need for documentation of the magnitudes involved in present world urbanization trends was so pressing that early publication was preferable to a more thorough substantiation of the detailed figures. However, the work is to continue and it is hoped that revised estimates can be published at some future time in conjunction with new estimates once the results of censuses expected to be taken in and around 1970 become available. In addition, other work is in progress bearing on the composition of urban and rural populations by demographic, economic and social characteristics, and changes in these compositions. The present survey merely reviews the numbers of inhabitants residing in settlements of diverse types.

It is also recognized that variations in patterns of rural settlement by size of locality can have large implications for economic and social change, but this topic is so poorly documented in the census data of most countries that its world-wide survey cannot be undertaken at the present time.

Acknowledgement is given to Professor Pierre George for his review of the draft of this report. His comments have been taken into account in preparing the present text.

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1. *Official Records of the Economic and Social Council, Twenty-third Session, Supplement No. 4,* para. 16; *ibid., Twenty-seventh Session, Supplement No. 3,* para. 29; *ibid., Thirty-first Session, Supplement No. 3,* para. 131 A(3).

2. Surveys of two principal aspects have been published: "The situation and recent trends of mortality in the world" in *Population Bulletin of the United Nations, No. 6* and "Conditions and trends of fertility in the world" in *Population Bulletin of the United Nations, No. 7* (United Nations publications, Sales Nos.: 62.XIII.2 and 64.XIII.2).

3. Previous documents include "World urbanization trends, 1920-1960" published in the first issue of *International Social Development Review* (United Nations publication, Sales No.: E.68.IV.1) and "Urban and rural population growth, 1920-1960, with projections", an unpublished paper prepared by the United Nations Secretariat for submission to the Population Commission (1967).

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EXPLANATORY NOTES

The following symbols have been used in the tables throughout the report:

Three dots (. . .) indicate that data are not available or are not separately reported

A dash (—) indicates that the amount is nil or negligible

A blank in a table indicates that the item is not applicable

A minus sign (–) indicates a deficit or decrease, except as indicated

A full stop (.) is used to indicate decimals

A comma (,) is used to distinguish thousands and millions

A slash (/) indicates a crop year or financial year, e.g., 1960/61

Use of a hyphen (-) between dates representing years, e.g., 1961-1963, signifies the full period involved including the beginning and end years.

The word "billion" is used to signify a thousand million.

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The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country or territory or of its authorities, or concerning the delimitation of its frontiers.
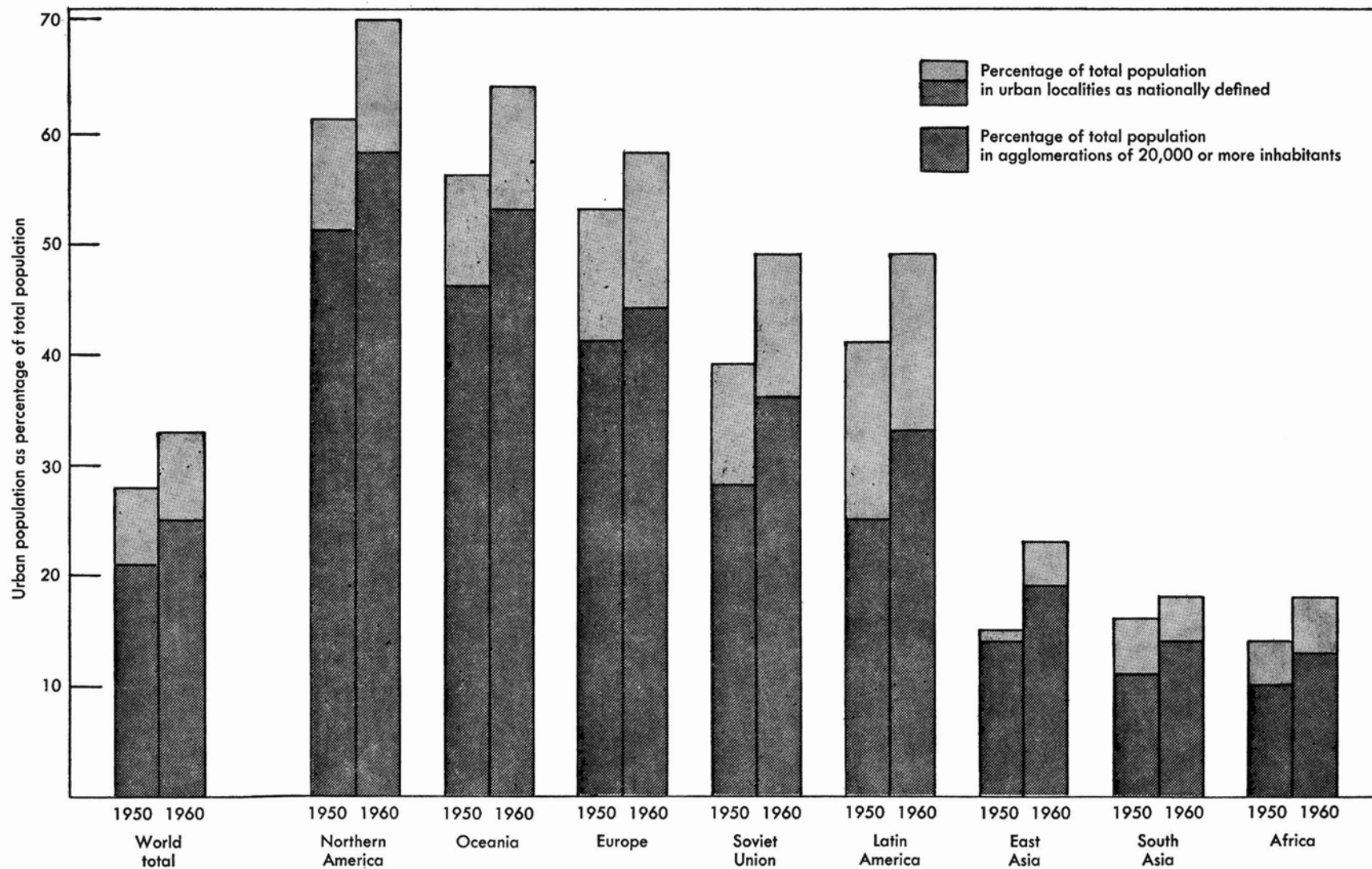
Figure I. Percentage of total population in all urban localities as nationally defined and in agglomerations with 20,000 or more inhabitants, 1950 and 1960

INTRODUCTION

A. Significance of recent urbanization trends

The most conspicuous feature of today's accelerated world population growth is its even greater rapidity of urbanization. In many periods in history, populations and cities have grown, but the tempo and dimensions of recent years have never been equalled. The many ramifications of this growth have special significance in their relation to economic and social change.

The increase in size of cities is associated with such developments as growth in a monetary economy, a shift towards preponderance of employment in non-agricultural activities and the spread of popular education; material and cultural aspirations are undergoing transformation, and social relationships are being modified. These changes, in part response and in part stimulation to urbanization, act as a mechanism which pushes it to even higher levels. The character of urbanism itself is currently changing because of the recent shifts from manufacturing to service employments. Entire regions are affected by the diffusion of urbanism, and differences among regions in the weight of this influence alter their terms of trade and cultural exchanges.

Urbanization and its associated changes do not necessarily proceed at the same speed. Rapid commercialization of agriculture, for instance, may not at the same time contribute to the growth of cities. But, more often, changes create conditions causing migrants in search of cash earnings to pour into cities in numbers exceeding the capacity of the economy to create jobs with a satisfactory level of productivity.

The substratum of these interacting factors is the prevailing demographic situation. Where the urbanization level is already high and total population growth moderate, continuing urbanization can nullify the amount of any natural increase in the rural population. But in large parts of the world, not yet so urbanized and having higher rates of total growth, even the growth in rural population has accelerated markedly despite the rising proportion of city dwellers.

Drastic alterations in settlement patterns may result from the unequal rate of growth of big cities and smaller towns, from modifications in regional urban concentration or dispersion and in the form of the rural habitat, whether in villages or hamlets or dispersed. In such changing conditions, conventional terms become less adequate as descriptions of the environment. Settlements which were "urban" in the context of earlier times have lost this quality in comparison with cities which have attained vastly greater size, while the character of other localities still designated as "rural" has been transformed by a pervasion of urban features. Regions of the world differ greatly in the qualitative content of urbanism,

and typical features of settlements of a given size can be diverse. The present fluidity of concepts of "urban" and "rural" is in itself an indication of qualitative changes in the environments concurrent with quantitative changes in population distribution. The resulting complexity presents many obstacles to measurements of the phenomenon of urbanization and their comparison; nevertheless, in a field of such vital importance, measurement must be attempted.

The fact that a considerable inertia inheres in population trends must be recognized when attempting to establish targets for a balanced social and development policy. Anticipation of the balance between goods and services to be produced in either urban or rural environments, choice among economic projects with several possibilities of location, and provision for the economic requirements arising from urbanization itself are dependent on an assessment of demographic trends. Overhead, social costs, the availability of a diversified labour force all vary with the type of locality. Social services (e.g., housing, educational and health) have to be differentiated in type and quantity according to the present and future inhabitants of the location. The judicious geographic distribution of investments, incentives or deterrents is one possibility that may be envisaged in modifying the population distribution. Alternative costs and benefits would then have to be calculated against a static demographic background as well as in the context of flexible population patterns in attempting to approximate more closely the goal of a society's balanced development.

National conditions are diverse and defy generalization at this stage. Mere magnitudes of urban and rural populations, such as those roughly estimated and surveyed in the present report, may serve certain broad purposes, but they underscore the need for more detailed study of the two population segments.

B. Aspects of urbanization

The historic consideration of this subject, as well as the survey of its current features, has led to the conclusion that a definition of "urban" places cannot be devised which has unvarying relevance throughout the changes in time and diversity in local conditions.[1] It is recognized that the "urban" phenomenon is associated with numerous aspects and, furthermore, that these aspects can coincide or overlap to a varied extent, and that not all are neces-

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[1] According to P. George, no single function can be used as a basis for the definition of an urban locality. Cities and towns have come into existence for diverse reasons and may consequently exhibit diverse combinations of functions. What they seem to have in common is a concentration of inhabitants in a limited area presenting visible features of architecture and physical arrangements (P. George, *La ville; le fait urbain à travers le monde* (Paris, 1952), pp. 28-30).

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sarily present at the same time. Urbanization, consequently, will not be confined to any single definition for the present purpose. Instead of a definition, the foregoing "statement of recognition" will have to be accepted as a more adequate expression to reflect the manifestations of a greatly varied and complex process.

The concept of urbanization implies two sets of phenomena, "urban" and its opposite, "rural". The second basic assumption is that the urban area is distinguished by discernible geographical boundaries, a condition more clearly established in the past than it is now.

Whereas no two localities are ever identical, inhabited areas can be grouped according to certain principles of resemblance. Under changing conditions, the twofold urban-rural distinction may gain or lose in relevance; sometimes a distinction may have to be drawn in new terms, as when a locality of intermediate characteristics develops differences from the type in which it is classified, or there may be a continuum of types within a group, according to the scale of measurement. While big cities can differ as much from small towns as the latter differ from villages, there may be a gradation in some features as they are found in several localities ranging in size from small hamlets to the largest city.

"Urbanism" includes a wide variety of functions, and it cannot be said which one of them is determining, either by its presence or by degree. Agriculture may persist as a principal activity among many city residents in some countries, while elsewhere it may be virtually absent even in the smallest town. Mining towns with no municipal administration can spring up and be no less urban than some long-established cities. At a certain phase of development, most urban places may be equipped with, say, electric light, a post office, a school or a police station, while most rural places are not; yet any such feature may already be present in some villages though still lacking in many city quarters. Countries differ in these respects, hence certain features can have different weight in determining how a particular locality is to be rated.

Countries also differ greatly in systems of local administration and this is reflected in methods of census-taking and in data tabulation. Statistics for areas which can be classified as either urban or rural relate to territorial units within administrative or other boundaries traced according to the purposes and convenience of the statistical procedure. Local government boundaries of municipal places may include areas of a rural type, or they may exclude adjacent areas of urban settlement. Criteria which serve both to trace boundaries of "urbanized" territory and the operation of a census are difficult to establish. In view of the tendency towards the geographic expansion of "urbanized" territory and the lag of corresponding official adjustments, the actual data obtained in successive population censuses are of dubious comparability for the most part, both internationally and as a time series.

C. HISTORIC DEVELOPMENT OF THE "URBAN" CONCEPT

The beginning of recorded history is concurrent with the emergence of cities. The diminutive centres of early Mesopotamia would present few urban attributes to a

modern observer, but even in that early period the multiple functions they encompassed made them essentially distinct from surrounding agricultural settlements. This characteristic has persisted throughout most of history, albeit with changed features.[2]

In the ensuing epochs, the typology of inhabited localities — town and countryside — tended to become manifold. *Villas* and *colonias* in the western parts of the Roman Empire were neither towns nor villages. In China, a threefold system of territorial administration has existed since early times; during the T'ang period it spread to other parts of East Asia.[3] Another example of diversification of urban functions was the development of *medinas*, *kasbah* and *bazars* in countries of Islamic culture. In later mediaeval times in Europe, the twofold distinction sharpened again as cities acquired royal charters exempting them from feudal authority and specifying local legislative powers and privileges.

For centuries, most urban developments were enclaves surrounded by moats and fortified walls. Their administrative and cultural functions were symbolized in temples, courts, monuments, places of public assembly for political, military and recreational purposes, institutions of learning and the promotion of the arts. This multiplicity of function fostered the development of the political and commercial organization. The culture and personality of the townspeople were in strong contrast to those of their rural cousins, and in most respects the distinction between the representatives of the two environments was clearly apparent. Sometimes other types, such as the extramural squatters, entered within the walls and partook of the town's economic functions but not its urban duties and privileges. Nevertheless, in most respects a plainly visible boundary separated the residential area of a population group which had distinctive economic, cultural, social and psychological traits.

In these conditions, a single criterion pertaining to administration, for instance the existence of a city charter, was sufficient to differentiate a population category. The same group of urbanites would have been defined if any one of numerous other criteria had been used, but the law specific to the designation of an area was the evident foundation on which the other distinctions rested.

Post-mediaeval developments blurred previously sharp contrasts. National, provincial or colonial centres acquired additional functions, distinguishing them from numerous other cities of equal antiquity. Urban areas spread beyond their established confines or developed without walls; their territories ceased to be circumscribed by legislative decreee. Diffusion of urban features over wider areas and the unprecedented growth of the urban places themselves began to affect every environment, resulting in new settlement types with more varied combinations of features. The spread of trade under

[2] See, for example, L. Mumford, *The City in History* (New York, 1961).

[3] Three types of districts are distinguished, according to whether they are administered from a city, a market-town, or are entirely rural. In China, these are known as *shi, cheng* and *shiang*; in Japan as *shi, machi* and *mura*; and in Korea as *shi, eup* and *myeon*.

mercantilism, at times supplemented or spearheaded by military conquest, eventually planted these transformations throughout the world. A complex rearrangement of relationships among peoples and societies was set in motion, the outcome of which cannot yet be foreseen. In some countries, notably in South and East Asia, new enclaves serving overseas trade grew into primate cities, gaining ascendancy over an already developed structure of traditional cities.

D. Modern "urban" conditions

In what now appears as the earlier industrial period large manufacturing enterprises superseded home and shop crafts, accentuating the contrasts between cities with their smoke stacks and railway yards and farms and villages whose simpler arts and crafts languished in the competition. The industrial revolution engendered a new cycle in the growth of world commerce, transport, finance and other services. Large-scale manufactures, in particular, appeared almost as the essence of the new "urban" distinction. The prevalence of non-agricultural activity has indeed always been correlated with other urban features, such as provisions for education, type of housing, consumption patterns, political concepts, administrative structures and so forth. And as the technological changes gained dominance in the world they seemed to determine the basic "urban" criterion, with associated features trailing in the van.

Efficient bulk transport and telegraphic communication permitted industrial and commercial cities to attain unprecedented size and scope. Recent developments have opened a new growth dimension, whose urban elements penetrate into more extensive areas. Notable in these developments is the heightened efficiency of short-distance transport, the wide-spread availability of means of instant communication and the geographic extensions of power networks such as electric grids, gas pipelines and computer link-ups. As a consequence, whole regions are distinguishable as under the dominance of urban centres.

The increasing scale and complexity of the interplay of urban functions are enlarging the recognizable units of urban dominance. Suburbs adjacent to some of the major cities were already in evidence a long time ago. As far back as a century ago, a new trend was identified in western Europe by the "conurbations" resulting from the coalescence of separate towns with their interstitial rural areas. Less compact but of greater compass are the newer "metropolitan areas", for instance those so designated in the United States. These consist usually of a central "city" and an outer "ring", and the latter can comprise numerous satellite centres and subsidiary commercial and residential nuclei. Still more recently, the term "megalopolis" has come into use to describe entire chains of metropolitan areas strung along major arteries carrying enormous volumes of intercity traffic. One such belt is situated along the eastern coast of the United States, and another along the southern coast of Japan. The conglomerate of heavily urbanized regions in western Europe (most of Belgium and the Netherlands, the western portion of the Federal Republic of Germany,

the northern rim of France and the south-east of England), shaped somewhat differently, may be placed in the same category. Each of these three megalopolitan regions now comprises nearly 50 million inhabitants within an area of about 150,000 square kilometres, and the emergence of more such regions is foreseen.

Somewhat different developments have followed the implementation of policies deliberately aimed at regional decentralization, notably in the Soviet Union. Throughout the wide territory of that country the growth of certain cities has been promoted, with a consequent slower growth in older and bigger cities than might otherwise have occurred. Nevertheless, in its Central Industrial Region, a comparatively dense network of major centres with interdependent industrial functions has developed. In several other countries, new cities or satellite towns have been planned on a smaller scale, and regional development projects have also brought about some geographic redistribution of urban growth.

In many parts of the world, the primary distinction of settlements as "urban" or "rural" serves most purposes of study. However, this simple scale is not adequate for entire regions with dominantly urban interdependent functions. A fourfold classification, separating "urban" from "rural" areas both within and outside the larger regions of urban dominance, might provide a more relevant framework of analysis. In practice, such a scheme would be too easily vitiated by the accidental contours of local administrative boundaries, and by difficulties in devising sufficiently refined criteria. Other methods of regionalization and subregionalization may be of interest in countries having different conditions or policies. However, in a fluid situation it is doubtful whether any detailed scheme can remain valid over an extended period of time.

With the increase in number of urban attributes and their wider diffusion, it is doubtful that the historic twofold "urban" and "rural" distinction will retain its relevance much longer. Neither administrative status nor types of economic activity can be relied on as a permanent basic criterion. The one distinguishing feature of strictly urban areas which is likely to maintain its significance for many practical purposes is the concentration of numerous residents within relatively compact areas of dense settlement. The recognition of this persistent feature has led to the new census definitions of "urbanized area" in the United States, and "densely inhabited district" in Japan.

E. Structure of the "rural" environment

Little is known about world-wide variations in the degrees of population concentration or dispersal in the rural habitat. In some countries, e.g., France and Italy, the censuses furnish detailed data by types of rural settlement, whether in villages or dispersed households, and the censuses of a few other countries also have some information of this nature. In many countries, however, though the rural population may be greater in the majority, it is enumerated and tabulated without any further differentiation by type of settlement, and is a mere residual after subtraction of the urban from the total population.

Geographers and travellers have compiled much descriptive detail. but it pertains only to quality and does not lend itself to measurement or estimation of size.[4]

The probable importance of more detailed description of settlement patterns within the broader framework may be demonstrated from observations taken on a much larger scale. In a macroscopic world view one can now identify six regions of greatest population concentration with about 50 million inhabitants each. Three of these have already been mentioned, namely, the megalopolitan regions in western Europe, the eastern United States and Japan. The majority of their populations are urban. though within these regions agriculture is also practised with high efficiency and considerable yield.

The three other concentrations are the Yangtse delta in China, the Ganges delta in India and Pakistan, and the Indonesian island of Java. Again, these three regions are about the same size in area and population totals. Their populations, however, are predominantly rural, though Shanghai, Calcutta and Djakarta rate among the world's largest cities. Their settlement patterns and economic and social circumstances obviously differ substantially from those of the first three mentioned. The character of the leading cities themselves — whether London, New York and Tokyo, or Shanghai, Calcutta and Djakarta — also depends much on the character of settlements in their respective hinterlands, and the characteristics of inland towns and villages are known to exhibit extreme differences. If differences of settlement pattern on the large scale are associated with such a diversity of conditions, it will appear highly likely that differences in the form of the rural habitat, on the smaller scale, can also be rather decisive in determining the forms of economic and social development which are needful and feasible in each region.

Present conditions are reminiscent of the past, when the development potential was also considerably affected by forms of the rural habitat. The internal transport network is apt to remain sparse where many small units of settlement are separated by appreciable distance; improved roads can be economically maintained only where they connect more substantial villages or towns. Schools, hospitals, repair shops, co-operatives, electricity and a host of other development factors, which might be brought within the comfortable reach of village peasants, remain inaccessible to isolated farmers. In hamlets and homesteads, opportunities for diversified social function and organization are minimal, but they can be considerable in sizable villages. If sufficiently large, villages can also maintain some industrial establishments. On the other hand, the sizes of some villages may grow disproportionate to their accessible farmland, again necessitating some dispersal of settlers or migration to towns and cities. Because of these and other factors, projects of agrarian reform or community development might derive guidance from quantitative knowledge regarding patterns and trends in the forms of rural settlement.[5]

In the last analysis, even the most urbanized society subsists on food. An urbanized country may trade its manufactures for food produced elsewhere. Nevertheless, an efficient and prosperous agriculture will remain a prerequisite for other developments. Whether comprising a majority or a minority of the sector measured, in any one country the rural component remains a foundation supporting a superstructure of urban settlements. The scattered information now existing with respect to the world's rural habitat and its possible implications for rural development is woefully insufficient for an assessment of basic problems affecting the welfare of man.

F. The demographic viewpoint

Many fields of technological and scientific specialization are engaged in the study of urban and rural environments. Demography, an elaboration on the numbers, trends and characteristics of the inhabitants, has special pertinence to issues of human welfare. Its basic unit of measurement is the individual. Goals of improvement of quality of living have as their starting point a knowledge of the implications of demographic facts and probable trends, not only in terms of conferring benefits but also of the availability of human resources by which they may be attained.

The adequate study of urbanization and related phenomena requires a combination of disciplines. Demography is concerned primarily with numbers of people and their characteristics, but the process of change is activated in a wider field of economic, social and cultural circumstances and transformations. Space does not now permit a review of this wider literature, but it is worth noting that certain terms have come into use in the description of forces by which the urbanization process appears to be motivated. Some writers have emphasized the "push" aspect where migrants are induced to move to cities and towns because of insecure, adverse or deteriorating conditions experienced in the countryside. The "pull" aspect, namely the attraction of migrants by more favourable or promising conditions in urban places, is stressed in some other writings. More recently, especially in India, attention has been drawn to "push-back" factors which force migrants after a temporary residence in the city, where they are unable to secure a more permanent foothold, to return to their places of origin. The dominance of one or another aspect, also that of "intervening opportunities" (e.g., rural migrants moving to small towns, and small-town migrants to big cities), may depend on conditions in each country. Further aspects can be mentioned, for instance, a self-reinforcing tendency which

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[4] Much can be learned, however, from the study of very detailed maps and from systematic aerial photographs.

[5] New land settlement can also take diverse forms depending in part on modes of transportation, distances and types of social organization. Rural settlement in the United States proceeded mainly by a dispersal of individual farms. Russian settlements in the Asian steppe regions were mainly in the form of villages. In the Netherlands, lands reclaimed from the sea (polders) are settled with sizable villages equipped with many service facilities. As a result of land reform, new settlements in southern Italy are often in the form of smaller villages designed to decongest old villages less favourably situated which have grown to an excessive size.

appears to have gained prominence in many less developed countries: a large influx of poor migrants into cities forces at least minimal social investments to facilitate their accommodation (e.g., health and police protection, transport, sewerage, electricity, schools, social services), as a result of which an even larger influx is encouraged. Yet another aspect is noted where localities previously considered as rural acquire urban characteristics, so that urbanization can occur *in situ* and not only as a result of migration.

In general, the motivations for migration to cities are found to be primarily economic, and economic processes are also at work where given localities acquire urban features. There is much evidence, however, to challenge the view that the forces which produce urbanization are exclusively economic. Cultural, educational, political and social factors are also important, and the presence of a wide range of diverse motivations has been detected in some surveys. The intention to move from a rural to an urban residence, and the success with which individual migrants accommodate themselves to an urban environment, has psychological prerequisites and these can originate from various sources, not all of them strictly rational or necessarily economic. While aware of this multiplicity of aspects, not all of which can be dealt with simultaneously, demographers make their contribution by the more special study of the quantity of human individuals involved, and the dynamics which are internal to changes within that quantity.

Over the five- or ten-year period ordinarily considered in economic policy programmes, the demographic situation of a country is usually affected to a greater degree by changes in the proportionate distribution of its population than in its rate of growth. This is because trends of natural increase (or decrease), the difference between birth and death rates, have a considerable inertia, while fluctuations from migratory movements are generally volatile. The reduction of population growth in some areas through out-migration is inevitably bound up with a corresponding acceleration of growth in the areas of in-migration. When enough cannot be done to promote acceptable living conditions in one environment, more will have to be done elsewhere. And what is being done has further repercussions on spontaneous migratory movements. Measures affecting the geographic distribution of investments may have to be adjusted and readjusted accordingly.

More than an overview of changes in numbers and proportions of urban and rural populations is needed when assessing development needs in the two environments. Allocation of investments in different types of schools, housing, productive equipment, health facilities and so forth requires a more detailed analysis of the demographic component. The structure of urban and rural populations must be analysed, i.e., a study made of their composition by sex, age, marital status, household composition, education, types of economic activity and possibly also ethnic or other relevant characteristics. The alteration produced by shifts in characteristics from one environment to another is quickly apparent in the economic sector, but migration and resettlement can also

be conducive to establishing the social prerequisites to a future more intensive economic development.

Urbanization itself may eventually retard total population growth everywhere. The available evidence suggests that rates of family formation and levels of fertility are usually lower in urban than in rural environments, and in more urbanized than in less urbanized regions. This may be ascribed to the higher levels of education and income and greater variety of types of employment and activities, particularly for women, found in urban areas. The essence of the urban environment, the constant interaction in neighbourhoods of a numerous and diverse people, may have a psychological effect on attitudes towards fertility as it does on other matters of behaviour.[6]

For the present, mankind may still continue its rapid multiplication and the urban areas their even greater rate of expansion, but eventually the abatement of population growth must follow changes in the environment. More knowledge of the many influences at work is needed to alleviate the problems resulting from imbalances during this transitional period.

G. PURPOSE OF THE REPORT

This report proposes estimates of the size, rate of growth and proportions of urban and rural populations in the countries and major regions of the world at ten-year intervals from 1920 to 1960. The trends of these phenomena are further extrapolated to the year 1980, and some to the year 2000. The estimates have been based on census data, supplemented by material from other sources where censuses were lacking. Because of variations in the definition of urban population and in the delimitation of urban localities, the data were adjusted in a number of instances to render them more nearly comparable. Figures were interpolated or extrapolated to the appropriate date. Estimates of rural population were obtained by subtracting estimates of urban from total population.

In this study, estimates of urban populations are presented according to two determinations: national definitions and a standard aimed at international comparability.[7] In chapter I, urban population is estimated by the criteria of each country and in chapter II as that of localities with 20,000 or more inhabitants. A comparison of alternative methods of measurement is made in chapter III. The projections in chapter IV are for localities with more than and less than 20,000 inhabitants but include rough estimates derived therefrom for the population which may be defined as urban.

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[6] These are long-run considerations. In the short run, urbanization can also cause some acceleration of population growth, e.g., by an attendant decrease of infant mortality or encouragement of early marriage. Since the proportion of young adults is usually greater in urban than in rural areas, other conditions being equal, urban birth rates can exceed, and urban death rates can fall below the corresponding rural rates.

[7] The adoption of 20,000 as the minimum number of inhabitants of localities here considered as part of the "agglomerated population" was dictated by simple expediency in terms of available data. By most national criteria of "urban" places, this size limit is somewhat high, and it may represent different degrees or combinations of "urban" features in different countries.

It is to be expected that national definitions differ widely because of the diversity of conditions among countries and of criteria for urban classification. Census data on population characteristics collected on this basis are the only means of analysing urban-rural differences, and are therefore of international interest. But urban measurements of world-wide comparability can only be assembled in terms of localities defined by population size.

The criterion of locality size has several uses. It makes possible the construction of a more homogeneous time series for a country, obviating changes in national definitions from one census to another. It permits comparison of trends in localities of different size classes, for instance, of larger cities and smaller towns. When more attention is given to data for smaller localities, it could also be the means of advancing the presently neglected study of rural settlement patterns.

Compiling population estimates is a hazardous undertaking when the sources of information differ in type, degree of accuracy and definition. Many figures in this report are subject to serious reservations. Nevertheless, it is hoped this assembly of estimates may be a useful adjunct to the many disciplines engaged in the formulation of policies for urban and rural development, and may contribute to the determination of priorities for their implementation. In particular, an indication may also be found of the wide variation in priorities in these fields among countries and regions of the world.

Chapter I

THE WORLD'S URBAN AND RURAL POPULATION IN 1950 AND 1960,
AS NATIONALLY DEFINED

A. PROBLEMS OF STATISTICAL DEFINITION

Statistics on many subjects are compared at the international level. Industrial output, for instance, is compared among countries in terms of weight, volume or price, although it may differ widely in types of products included and in their production methods. Numbers of newpapers in circulation without regard to content are also compared on an international basis, as are levels of national income per inhabitant which take no account of differences in internal distribution or the available goods and services on which it may be spent. There are many such examples for which significant insight is gained as to trends, although much greater comprehension of characteristics is required for their more detailed interpretation. This observation applies especially to the international assembly of statistics on urban and rural population trends.

A definition of urban places is a part of the framework of national census procedures and varies with the country. Since the primary purpose of censuses has been to serve administrative needs, the value of providing for the analysis of demographic structure and its changes as revealed in successive censuses has only gradually been recognized. In many cases, inflexibility of the administrative concept has seriously hindered an understanding of national conditions, among them the processes and dimensions of urbanization. This has added to the complexity of a world urban survey embracing a diversity of national definitions.

Most frequent differences in definition are matters of *nomenclature*, of *geographic delimitation* or of the *criteria* established to designate areal units as "urban" or "rural". Interdependence is found in varying degree among these determinations in many censuses, and the use of overlapping categories makes it difficult to establish a clear-cut classification of national definitions of urban population. This is illustrated in data published in a recent United Nations document with respect to an examination of 123 national population censuses taken between 1955 and 1963.[1] Types of classification units within these

categories and their frequency of use are set forth below. The figures shown do not add to 123 (the number of censuses examined) in each column owing to overlaps resulting from combined uses of more than one category.

(I) *Nomenclature (units of classification)*

	Sole use	Used in conjunction with units of another nomencalture
		Frequency of use
(A) Localities[a]	24	11
(B) Minor civil divisions	9	4
(C) Administrative centres of minor civil divisions	10	8
(D) Small units, specified as "cities", "towns", "townships", "villages" etc.[b]	31	15
(E) Urban units by place name only[c]	19	10
No indication	7	0

(II) *Geographic delimitation (types of locality definition)*

	Irrespective of nomenclature[d]	*"Localities" also by nomenclature[e] (all A)*	*Urban areas solely defined as "localities" of some minimum size[f] (A (1) only)*
		Frequency of use	
(a) Agglomerations of population without regard to fixed boundaries[a]	19	11	5
(b) Localities with fixed boundaries, commonly under the jurisdiction of local or "urban" forms of government	33	12	2
(c) Relatively small or smallest civil divisions having fixed boundaries and, in sum, comprising the entire country	29	5	1
Undetermined	42	7	1

[a] Recommended for international use.
[b] These terms may indicate places with particular types of local administrative characteristics or they may merely be general terms for clusters of population.
[c] In certain islands on other small national units where there are only one or a few towns, the place names are sufficient to identify "urban" population.
[d] Including units specified in the official nomenclature by terms other than "localities".
[e] Including instances of mixed nomenclature, some units being described as "localities" and other units in different terms.
[f] Instances where the sole nomenclature is of type (A), and the sole criterion for the selection of "urban" units is a minimum population size (type (1)). Minimum population sizes, however, vary widely among national censuses.

[1] *Ad hoc* Committee of Experts on Programmes in Demographic Aspects of Urbanization, Sydney, 1967, "Statistical concepts and definitions of urban and rural population: national, regional and world-wide; note by the Secretary-General" (E/CN.9/AC.7/L.9, 11 July 1967).

(III) *Criteria for selection (as urban)*

	Frequency of use	
	Sole use	*Used in conjunction with other criteria*
(1) Size of population[g]	23	26
(2) Density of population or of housing	1	10
(3) Predominant type of economic activity	1	7
(4) "Urban characteristics" other than (1) to (3) above, or unspecified "urban characteristics"	3	13[h]
(5) Administrative function or structure, e.g., type of local government etc.	3	0
None specified[i]	56	0

[g] Tabulations of population in localities grouped by specified size classes are internationally recommended.

[h] Including seven instances in which the criterion for selection was not specified.

[i] Considering that a criterion of administrative function is implicit where the area nomenclature is of type (C) (administrative centres of minor civil divisions), and a criterion of administrative structure can usually be assumed where the nomenclature is of type (D) ("cities", "towns" etc. with particular types of local administration), one can also say that the fifth criterion for the selection of urban units was implicit in sixty-seven censuses, and that no criterion was suggested in only twenty-nine censuses.

For international use, unit (A) has been recommended in classifying urban and rural statistics,[2] with preference given to type (a).[3] With respect to criteria, a recommendation for the use of (1) above, size of population, on an international scale has met with some dissent in most parts of the world.[4] This criterion has particular applicability to Europe, however.[5] Among countries applying the criterion of population size, there is wide variation in the lower limit designating an "urban" area. Speaking very broadly, the typical size limit above which a settlement appears to have "urban" features and functions varies with population density and levels of development. In sparsely settled countries and in countries of advanced economic development, centres can usually be described as "urban" that are smaller than those in densely settled countries and less developed countries. Such considerations have less pertinence to European countries, where urban developments have been more homogeneous.

Whether or not international recommendations have been successful in achieving a greater frequency of census data in terms of "localities" defined as clusters and tabulated according to population size, the fact remains that recent censuses present a bewildering variety of "urban" definitions. Of the 123 recent censuses examined,

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[2] *Principles and Recommendations for the 1970 Population Censuses* (United Nations publication, Sales No.: 67.XVII.3), paras. 298-299.

[3] *Ibid.*, para. 232.

[4] At recent regional conferences of American and of Asian statisticians, the opinion was expressed that the use of uniform criteria of "urban" localities, in either American or Asian countries, was not to be recommended at this stage (*ibid.*, para. 313).

[5] The Conference of European Statisticians has recommended, where appropriate, to designate as "urban" all localities with at least 10,000 inhabitants, as "rural" all localities with less than 2,000 inhabitants, and as "semi-urban" all localities of intermediate population size. "Report of the fifth session of the Working Group on Censuses of Population and Housing" (Conf. Eur. Stats/WG.6/97, 15 January 1964), para. 159.

eighty-eight define "urban" population according to a single definition, based on a single combination of a nomenclature and criterion, for example, Mexico (A1) where localities (A) of 2,500 or more inhabitants (1) are defined as "urban". However, in fifty-seven of these censuses the definitional criterion is not explicitly specified. Hence, there are only thirty-one censuses with a clearly specified and unique definition. A cross-tabulation of nomenclature and criteria for definitions used in these thirty-one censuses is shown below.

(IV) *Classification of definitions in censuses with only one urban definition*[a]

Type of nomenclature	Type of criterion					
	(1)	*(2)*	*(3)*	*(4)*	*(5)*	*All specified criteria*
(A)	9	0	1	3	1	14
(B)	5	1	0	0	1	7
(C)	0	0	0	0	0	0
(D)	9	0	0	0	1	10
(E)	0	0	0	0	0	0
All specified nomenclatures .	23	1	1	3	3	31

[a] Irrespective of manner in which "localities" or other minor units are delimited. Excluding those censuses in which the definition involves more than one nomenclature and criterion.

On the other hand, in many countries urban definitions are more complex. In such countries, urban places may be defined by more than one combination of nomenclature and criteria used in conjunction. One example of such a system of definitions occurs in Yugoslavia (A1, and A1,3) where all localities (A) qualify as "urban" if they contain 15,000 or more inhabitants (1), while smaller localities (A) may qualify as "urban" provided they meet certain combinations of size (1) and economic activity (3) criteria.[6] The situation is much more complex in a number of other countries, for example, in India where the following combinations may be used in conjunction: A1,2,3,4, D. A total number of 172 different definitions can be observed among the 123 censuses; however, in eighty-three of these 172 definitions the criterion is not specified. A cross-tabulation of nomenclature and criteria used in the remaining eighty-nine definitions is shown below.

(V) *Classification of definitions*[a]

Type of nomenclature	Type of criterion					
	(1)	*(2)*	*(3)*	*(4)*	*(5)*	*All specified criteria*
(A)	26	6	6	12	1	51
(B)	7	2	0	1	1	11
(C)	4	1	1	0	0	6
(D)	14	2	1	3	1	21
(E)	0	0	0	0	0	0
All specified nomenclatures .	51	11	8	16	3	89

[a] Irrespective of manner in which "localities" or other minor units are delimited. More than one definition occurs in many censuses.

[6] The following localities of less than 15,000 may qualify as "urban" in Yugoslavia: localities of 5,000-14,999 inhabitants of which at least 30 per cent are not engaged in agriculture; localities of 3,000-4,999 inhabitants of which at least 70 per cent are not engaged in agriculture, and localities of 2,000-2,999 inhabitants of which at least 80 per cent are not engaged in agriculture.

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Greater homogeneity of definition could be achieved in the unlikely event that forms of local government became more standardized throughout the world. A more plausible approach to the problem could be the provision by national censuses of "urban" and "rural" data according to two alternative definitions, one administrative and the other geographic. This cumbersome procedure would not be warranted in countries where the flexibility of systems of local government permit the geographical expansion of cities to be followed promptly by corresponding administrative adjustments. But it is important, and even necessary, where city administrations are more extensive than the urbanized terrain and where rigid administrative boundaries do not permit the inclusion in the urban area of suburbs which have grown beyond the limits of city government.[7]

To reflect modern trends more relevantly, a number of countries have modified the traditional definitions of "urban" and "rural" categories by designating particular regions under a dominant urban influence as "conurbations" or "metropolitan areas". The concept is functional and lays stress on the high degree of mutual interdependence of activities within such areas. Internationally comparable definitions of such regions have not been reached as yet. For one reason, the typical area sizes of constituent administrative units from which such regions can be composed differ among countries.[8] For another, criteria of population size, density, percentage of labour force in agriculture, frequencies in transport and communication functions, and others, for suitable inclusion of areal units in regions of urban dominance in one country are not necessarily typical in others.

Because the urban-dominated regions, composed of selected large units, may include much rural population but may not include adjacent urban settlements, their contours are frequently rather indefinite.[9] This is a major defect, since it obscures the population dynamics of such regions. Rapid geographic expansion has taken place in some countries partly through the growth of more strictly urbanized terrain, partly because of increasing interdependence among adjacent areas resulting from greater exchange of goods, services and utilities, and a widening of communication networks.[10] The speed of this geographic growth cannot be measured with any degree of accuracy, however, where the outlines of the composite areas are rough.

In several European countries, an agglomeration is determined by the geographic contour of the area comprising all houses within a prescribed proximity to each other.[11] Under such a maximum-distance rule, settlement contours of any size may be precisely determined, from isolated houses to the largest cities. Some European countries may have the means for the requisite detailed preparatory work but in many parts of the world the obstacles to such a refined procedure can be prohibitive.

Procedures with a degree of refinement intermediate to the house-to-house and contiguous-administrative-area bases have been introduced in recent censuses of the United States and Japan. In these procedures, areas of residential concentration are determined from a composite of area tracts mapped out for each census enumerator. If the number of adjacent census tracts combined in a composite area is large enough, errors in the detailed delimitation of contours due to inclusion of some houses of less proximity, or exclusion of a few others, are probably of little importance.[12]

The "urbanized areas" determined in the United States censuses of 1950 and 1960 consist, in the main, of these parts: a central administrative urban unit (in some instances two contiguous cities) with at least 50,000 inhabitants; immediately adjacent incorporated localities having at least 2,500 inhabitants or 100 closely spaced housing units; and other immediately adjacent census enumeration districts having at least 1,000 inhabitants per square mile. A few other rules take account of special administrative forms in certain states, or bridge small geographic gaps between densely settled areas of close proximity.

The system for designating "Densely Inhabited Districts" (briefly identified as DID) was initiated by Japan in its censuses of 1960 and 1965. Data are tabulated according to this system in addition to the conventional administrative-unit classification. Its simplicity and practicality, especially its relative independence from the forms of local administration, earn for it more than a passing reference in this document.

The DID system is based on the Enumeration District, which in Japan comprises an average of fifty households. The area comprised in each Enumeration District on the sketch maps is then measured. Residential population density of the Enumeration Districts is the decisive criterion for the establishment of a densely inhabited district, the lower limit of which signifies the boundary between classification as urban or rural. After careful nation-wide observations and surveys, a definition was reached which may be briefly indicated below. A DID

(a) Is delimited within the boundary of an administrative unit area (in Japan, *shi*, *machi* or *mura*);

[7] Decreases of city populations within municipal limits have been noted in countries such as the Federal Republic Germany, United Kingdom and United States as a result of residential shifts towards the suburbs; the combined agglomerations (suburbs included) nevertheless have continued to grow.

[8] The problem is studied, for example, in K. G. Grytzell, *The Demarcation of Comparable City Areas by Means of Population Density* (Lund, C. W. K. Gleerup, 1963).

[9] See, for example, G. J. R. Linge, *The Delimitation of Urban Boundaries*, Research School of Pacific Studies, Australian National University (Canberra, 1965).

[10] The agricultural, industrial, commercial, residential, recreational or speculative uses of land areas surrounding a city can be diverse, depending on forms of land ownership, systems of taxation, local administration, zoning regulations and so forth. Urban-dominated regions as defined by the standards of one country may have quite different component areas in another country.

[11] In Sweden, for example, the maximum distances between houses is 200 metres for the determination of an agglomeration, but uninhabited space such as cemeteries, parks etc. may also pertain to the agglomeration. Sveriges Officiella Statistik, *Folkräkningen den 1 November 1960*, vol. II (Stockholm, 1961).

[12] Census tracts are mapped mainly for convenience of enumeration. They have boundaries in terms of recognizable landmarks for the avoidance of omission or duplication among neighbouring enumerators, and are of a size calculated for coverage by each enumerator without undue loss of time.

(*b*) Consists of contiguous Enumeration Districts with an area of less than 0.0625 square kilometre for the group (about 4,000 inhabitants per square kilometre);

(*c*) Comprises a population of at least 5,000.

It may be mentioned that this degree of residential population density is found to have a high correlation with some fundamental characteristics of urban areas in the special case of Japan[18] though not necessarily in other countries with different conditions affecting transport or forms of residence.

B. Selection of data and methods for obtaining estimates of mid-year 1950 and 1960

In actual fact, most countries supply data on "urban" and "rural" population, as variously defined in the national censuses. (A list of urban definitions used by various countries at recent census dates is provided in annex II.) Countries vary considerably with respect to the minimum size of locality defined as urban. In Denmark, Finland and Sweden, localities containing as few as 200 residents may qualify as urban. In Australia and Canada the minimum size is 1,000 inhabitants; in Mexico and the United States it is 2,500 inhabitants. Even higher minimum criteria are observed elsewhere. In Iran, Austria, Belgium and Pakistan, localities must contain at least 5,000 inhabitants to qualify as urban, while in Switzerland, Turkey and Nepal, the minimum population is 10,000. The minimum population of Japanese urban municipalities has long been 20,000.

In most countries, urban population is tabulated only as defined in terms of boundaries. These tabulations may either underestimate or overestimate the size of densely populated settlements. Some of the tabulations for urban administrative units have been adjusted in this study to reflect more accurately the number of inhabitants actually residing within the area of dense settlement. In a few countries, notably Japan and the United States, census data are provided for the larger urban areas as defined by the physical contours of dense settlement. Urban definitions of this type are the most suitable for purposes of comparable measurement. In several countries, such as the United Kingdom, Federal Republic of Germany and France, population data are provided in the census or in publications of statistical institutes for regions under urban dominance. Such definitions are designed to include the trade and commuting population within the sphere of influence of major cities. These tabulations represent a fair approximation of urban population, though some rural population is classified as urban in this approach.

In addition to the definitional problems already described, there were still other statistical problems. Population censuses have been taken at various dates and with varied frequency, hence an assembly of estimates had to be substituted in which census data are interpolated

or extrapolated in time to the common reference dates of 1950 and 1960. As a rule, the trend in the percentage of "urban" population was carried to those mid-year dates and then applied to the population totals as estimated independently for the same dates. In practice, however, this could not always be done, and various devices had to be substituted rather arbitrarily. Because of differing time intervals between censuses, the periods over which interpolations or extrapolations had to be carried out also varied greatly.

The major methodological problems encountered in this study are listed below with brief explanations of the procedures that have been used in the various special situations. For a description of the estimating procedures used in certain countries, refer also to annex III.

(a) *Changes in urban definitions.* In some countries, the definition of "urban" population has recently changed from one census to another. Often this has been a change from more strictly administrative criteria to criteria taking additional features into account. As a result the new census total of "urban" population was sometimes larger (e.g., in some European countries and in Japan) and sometimes smaller (e.g., in India) than it would have been if the old criteria had been maintained. In these instances, it was preferred to estimate the 1960 "urban" population in conformity with the new definition, and that of 1950 according to the older definition, despite the consequent loss in time comparability. It was considered that any definitional change implied also a recognition of changed circumstances which rendered the old definition less adequate than it used to be. The concrete circumstances in individual countries, of course, would never change so abruptly, but in regional aggregates of many countries, including some where the definition has changed, the resulting discontinuity is probably attenuated;

(b) *Single urban definition.* In some countries, "urban" population was explicitly defined only in one of the recent censuses, but not in another. To arrive at comparable estimates for both 1950 and 1960 it then had to be assumed that the percentage of "urban" population, however, defined at least once, had changed by the same amount as the percentage of some associated population group, e.g., population in the chief cities, or the population of localities above a certain size limit;

(c) *Single census.* In some countries, only one population census could be taken into account. This was often the case in Africa where census enumeration has only recently been attempted in many countries. Estimates for changes in total population in these countries were, however, available. In those instances it had to be assumed that the percentage of "urban" population changed over the years by as much as did that of the population in certain cities — if such estimates were also available — or as it did in some other countries of the same region where circumstances affecting the urbanization trend may have been similar;

(d) *No census.* For some countries census data for "urban" population, or even total population, have not yet been obtained. Among these are Afghanistan, Ethiopia, Saudi Arabia and some other countries, most of them small. In such cases, it was necessary to assume

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[18] For a detailed discussion of other important features considered in this system and of the methodology, see Y. Morita, "A new method of delimiting urbanized areas in population census statistics", paper submitted to the Conference of the International Statistical Institute held in Belgrade in 1965.

that the level of urbanization was the same, and changed by the same amounts, as in some other countries of the same region where circumstances could have been similar;

(e) *No explicit urban definition.* In many countries census data have been supplied for "urban" population but no explanation can be found in the census literature to indicate what specific criteria, if any, were used to distinguish urban areas from other areas. The urban classifications in these countries may have been a matter of local judgement, or administrative criteria may have been used without specific explanation in the census publications. In mainland China, the population figures for only a limited number of municipalities were separately listed in the 1953 census. The municipal boundaries, however, were often more extensive than the urbanized territory of the corresponding cities. It was, therefore, necessary to develop an estimate of the amount of population that would have been tabulated as urban if an urban definition had, in fact, been applied to all areas of the nation. Incidental data in the 1953 census data for certain large municipalities revealed that approximately 81 to 83 per cent of the total population of these municipalities had been defined as urban.[14] This ratio was then applied to 160 other municipalities of 100,000 or more inhabitants in order to obtain a separate estimation of "urban" population in these areas. Estimates of urban population outside municipalities of 100,000 or more inhabitants could not be obtained from census data and had to be inferred roughly from data on the size composition of urban localities in mainland China at an earlier time and in other countries, notably India, at various dates (see annex III for further details).

It is acknowledged that these estimating methods and the arbitrary choices which sometimes had to be made cannot lead to regional and world totals of a high degree of statistical accuracy. But even if the data alone had more nearly attained that standard, the diversity in basic definitions would have injected an element of non-comparability. Nevertheless, in spite of the many reservations, it is hoped that they present a fair approximation to those orders of magnitude sufficient to establish a general sense of proportion.

C. Urban and rural population estimates for major world areas, 1950 and 1960

The division of the world into eight major areas as shown in tables 1 to 3 follows the scheme adopted in some recent publications.[15] Four of these major areas are broadly grouped as "more developed" and four as

[14] See Morris B. Ullman, *Cities of Mainland China: 1953 and 1958*, Bureau of the Census, International Population Reports, Series P-25, No. 59 (46 pages and maps), (Washington, D.C., August 1961).

[15] *World Population Prospects as Assessed in 1963* (United Nations publication, Sales No.: 66.XIII.2), and recent issues of United Nations, *Demographic Yearbook*. It is known that, as a geographic term, Europe includes a large portion of the Soviet Union. The Soviet Union, however, is one country which extends also over a considerable part of what, in geographic terms, is regarded as the continent of Asia. This circumstance has made it necessary for the present purpose to deal with the Soviet Union as one of the world's

"less developed". Portions not properly described by the designation (according to level of development of the major area) have been reallocated. Thus, in the lower section of the tables, data for Japan and Temperate South America are included with those of "more developed regions", and data for Oceania other than Australia and New Zealand are included with those of "less developed regions".

As shown in table 1, the population of the more developed regions apparently increased by an estimated 119 million in the decade of the 1950s. In areas defined as urban, the increase was 145 million, hence a net decrease of population in rural areas is implied. Part of this decline represents a reclassification as urban of previously rural areas because of a change in their character during the ten-year period, especially in Japan and parts of Europe. To what extent the population has diminished in areas classified as rural at both dates is undetermined.

Total population in the less developed region as estimated here grew by 356 million in this decade, urban population by 142 million and rural population by 214 million. Consideration of these figures must take into account the possibility of wide margins of error. The usual hazards connected with estimating procedures are increased by even greater uncertainties where mainland China and Africa are concerned. Another aspect of the difficulty is presented by India, where the 1961 census definition of "urban" population was more restrictive than it had been previously with a consequent reclassification as "rural" of part of the population formerly counted among the "urban". Accordingly, urban population of the less developed regions may have grown somewhat more, and rural population somewhat less than estimated here.

Nevertheless, rural growth greatly exceeded urban growth in the less developed region, in contrast to the trend in the more developed region. While growth in urban population numbers seems nearly equal in the two regions, qualifications with respect to redefinition could raise the level of the less developed above that of the other region, also.

Urbanization levels as shown in table 1 varied considerably among the major areas. In 1960, they were highest in three of the four more developed major areas, between 58 and 70 per cent of total population; lowest in three of the four less developed major areas, between 18 and 23 per cent. Excluding Japan (63 per cent urban in 1960) from the latter area, the urbanization level in East Asia falls to 17 per cent; excluding Temperate South America (68 per cent urban in 1960), the urbanization level in the remainder of Latin America decreases to 45 per cent. The Soviet Union, lowest of the more

major areas. Consequently, Europe, regarded as a separate major area, cannot here include any portion of the Soviet Union. It would be cumbersome to point out this fact throughout the text of the report wherever Europe, without the Soviet Union, is dealt with as one of the major areas. Other encroachments of major areas into traditional geographic concepts concern the European portion of Turkey and the state of Hawaii, now an integral part of the United States. For further explanations, see annex I.

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Table 1. Total, urban and rural population of the world and eight major areas, 1950 and 1960 and percentage of total population inhabiting places classified as "urban"

Major area	Population in 1950			Population in 1960			Urban population	
	Total	Urban (Millions)	Rural	Total	Urban (Millions)	Rural	1950 (Percentage)	1960
World total	2,516	705	1,811	2,991	992	1,999	28	33
More developed major areas . .	751	391	360	854	502	352	52	59
Europe	392	207	185	425	247	178	53	58
Northern America	166	106	60	199	139	60	61	70
Soviet Union	180	71	106	214	106	108	39	49
Oceania	13	7	6	16	10	6	56	64
Less developed major areas . . .	1,765	314	1,451	2,137	490	1,647	18	23
East Asia	684	105	579	794	181	613	15	23
South Asia	697	111	586	858	156	702	16	18
Latin America	162	66	96	212	103	109	41	49
Africa	222	32	190	273	50	223	14	18
More developed regions[a]	858	438	420	977	583	394	51	60
Less developed regions[b]	1,658	267	1,391	2,014	409	1,605	16	20

[a] Europe, Northern America, Soviet Union, Japan, Temperate South America, Australia and New Zealand.

[b] East Asia without Japan, South Asia, Latin America without Temperate South America, Africa and Oceania without Australia and New Zealand.

developed major areas, and Latin America, highest of the less developed major areas, were each at an urbanization level of 49 per cent.

Europe and Africa are very unevenly urbanized. Thus, in 1960 the urbanization levels can be estimated as 74 per cent in northern Europe, 68 per cent in western Europe, 48 per cent in eastern Europe, and 45 per cent in southern Europe; the high levels in northern and western Europe are comparable with those in Northern America, Japan and Temperate South America; the lower levels in eastern and southern Europe are similar to those in the Soviet Union and Latin America. Urbanization levels were 47 per cent in southern Africa, 30 per cent in northern

Africa, and 12 per cent in the tropical regions of Africa, hence the all-Africa percentage, 18 per cent in 1960, is the average of diverse conditions.

The estimated rises in urbanization levels from 1950 to 1960 should be interpreted with much caution because of definition changes and other uncertainties. Again, the rise is perhaps somewhat overstated for the more developed regions, and understated for the less developed ones. Though urbanization in more developed regions rose by a larger number of percentage points, relative rises were much greater in the less developed regions in view of the initially low levels.

Distribution of the world population is very uneven

Table 2. Land area and inhabitants of the total, urban and rural population per square kilometre of land, 1950 and 1960

Major area	Land area (Millions of square kilometres)	Inhabitants per square kilometre, 1950			Inhabitants per square kilometre, 1960		
		Total	Urban	Rural	Total	Urban	Rural
World total	135.1	19	6	13	22	7	15
More developed major areas	57.4	13	7	6	15	9	6
Europe	4.9	80	42	38	86	50	36
Northern America	21.5	8	5	3	9	6	3
Soviet Union	22.4	8	3	5	10	5	5
Oceania	8.6	1.5	0.8	0.7	1.9	1.2	0.7
Less developed major areas	77.7	23	4	19	27	6	21
East Asia	11.7	58	9	49	67	15	52
South Asia	15.2	46	7	39	56	10	46
Latin America	20.5	8	3	5	10	5	5
Africa	30.2	7	1.1	6	9	1.7	7
More developed regions[a]	61.3	14	7	7	16	10	6
Less developed regions[b]	73.8	23	4	19	27	5	22

[a] Europe, Northern America, Soviet Union, Japan, Temperate South America, Australia and New Zealand.

[b] East Asia without Japan, South Asia, Latin America without Temperate South America, Africa and Oceania without Australia and New Zealand.

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as can be seen in table 2. Interpretation of densities in large areas must take into account variations in climate and terrain and the vast stretches of inhospitable land in some of the major areas.

In 1960, Europe, East Asia and South Asia had average population densities of between 56 and 86 persons per square kilometre of land, Northern America, the Soviet Union, Latin America and Africa each had an average population density of 9 to 10 persons, while in Oceania the average density was very much lower. Europe was outstanding for its prevalence of urban settlement over the face of the land, with an average of 50 urban inhabitants per square kilometre; in East Asia and South Asia, the average densities of urban settlement related to total area stood at 15 and 10, respectively, while in the combined land areas of Northern America, the Soviet Union and Latin America the corresponding figures were 5 or 6. In Africa, in relation to its large land area, urban settlement is still quite sparse.

The major areas occupy somewhat different rankings when the prevalence of rural population in relation to land area is considered. Despite much inhospitable terrain, East Asia and South Asia had higher densities measured by rural population only than did Europe. In Africa, likewise, the average density for rural settlers exceeded those of the Soviet Union and Latin America, and considerably exceeded those of Northern America and Oceania.

Concentrations of urban or rural population in relation to their land areas can also be measured as shares in the world's totals, on the basis of figures as given in table 3. Thus, it can be seen that in less than 4 per cent of the world's land area Europe contained 25 per cent of the world's urban and 9 per cent of the world's rural population. Africa, with 22 per cent of the world's land, had only 5 per cent of the world's urban and 11 per cent of the world's rural population. Northern America, East Asia and South Asia each had between 14 and 18 per cent

of the world's urban population, but Northern America only had 3 per cent of the world's rural population, as compared with 31 per cent in East Asia and 35 per cent in South Asia. Land areas were 22, 12 and 15 per cent, respectively, of the world total.

Despite high and rising levels of urbanization and recent reclassifications as "urban" of previously rural areas, the share of the more developed regions in the world's urban population has decreased from 62 per cent in 1950 to 59 per cent in 1960. A dwindling minority of the world's rural population is situated in the more developed regions, 23 per cent in 1950 and 20 per cent in 1960. The high and increasing concentration of the world's rural population in Asia, particularly South Asia, is an outstanding feature of the world situation.

D. URBAN AND RURAL POPULATION ESTIMATES FOR FORTY OF THE WORLD'S COUNTRIES IN 1960

Estimates of 1950 and 1960 urban population as defined by each country of the world will be found in table 44 in annex IV. The twenty most populous countries of the more developed and of the less developed regions, ranked by total population size as estimated for 1960, are shown in table 4, accompanied by estimates of urban and rural populations for purposes of comparison. In each region, two large countries stand out by their population size, the Soviet Union and the United States in the former, and mainland China and India in the latter; they also have the largest urban populations.

Aside from those four giants, countries with large urban populations are more numerous in the more developed than in the less developed regions. Five of the more developed countries (Japan and the four major countries of Europe) had urban populations larger than 20 million each, and another five had urban populations between 10 and 20 million. Among the less developed countries, only Brazil appears to have more than 20

Table 3. Percentages of world's land area and of world's total, urban and rural population comprised in each of the major areas, 1950 and 1960

Major area	Land area	Total population		Urban population		Rural population	
		1950	1960	1950	1960	1950	1960
World total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
More developed major areas	42.4	29.8	28.6	55.4	50.6	19.8	17.6
Europe	3.6	15.6	14.2	29.4	24.9	10.2	8.9
Northern America	15.9	6.6	6.6	15.0	14.0	3.3	3.0
Soviet Union	16.6	7.2	7.2	10.0	10.7	6.0	5.4
Oceania	6.4	0.5	0.5	1.0	1.0	0.3	0.3
Less developed major areas	57.6	70.2	71.4	44.6	49.5	80.2	82.4
East Asia	8.7	27.2	26.4	14.9	18.3	32.0	30.7
South Asia	11.3	27.7	28.7	15.7	15.7	32.4	35.1
Latin America	15.2	6.4	7.1	9.4	10.4	5.3	5.4
Africa	22.1	8.8	9.1	4.6	5.0	10.5	11.2
More developed regions[a]	45.8	34.1	32.7	62.1	58.8	23.3	19.9
Less developed regions[b]	54.2	65.9	67.3	37.9	41.2	76.7	80.1

[a] Europe, Northern America, Soviet Union, Japan, Temperate South America, Australia and New Zealand.

[b] East Asia without Japan, South Asia, Latin America without Temperate South America, Africa and Oceania without Australia and New Zealand.

Table 4. More developed and less developed countries arranged by order of population size; total, urban and rural population in 1960

(Millions)

Rank order	More developed countries				Less developed countries			
	Country	Total	Urban	Rural	Country	Total	Urban	Rural
1	Soviet Union	214.4	106.0	108.4	China (mainland)	650.0	104.0	546.0
2	United States	180.7	126.5	54.2	India	432.8	77.5	345.3
3	Japan	93.2	58.7	34.5	Indonesia	94.2	13.7	80.5
4	Germany (Federal Republic of)	53.2	40.7	12.5	Pakistan	92.6	12.4	80.4
5	United Kingdom	52.5	41.2	11.3	Brazil	70.3	31.7	38.6
6	Italy	49.6	23.5	26.1	Nigeria	52.0	8.6	43.4
7	France	45.7	28.0	17.7	Mexico	35.0	17.7	17.3
8	Spain	30.3	17.1	13.2	Turkey	27.8	7.2	20.6
9	Poland	29.7	14.0	15.7	Philippines	27.4	8.2	19.2
10	Argentina	20.7	14.6	6.1	Thailand	26.4	4.8	21.6
11	Yugoslavia	18.4	5.1	13.3	United Arab Republic	26.0	9.8	16.2
12	Romania	18.4	5.9	12.5	Republic of Korea	24.7	6.8	17.9
13	Canada	17.9	12.4	5.5	Burma	22.3	3.6	18.7
14	Eastern Germany	17.2	12.4	4.8	Iran	20.2	6.8	13.4
15	Czechoslovakia	13.7	6.5	7.2	Ethiopia	20.0	1.0	19.0
16	Netherlands	11.5	9.2	2.3	North Viet-Nam	16.1	1.6	14.5
17	Australia	10.3	8.4	1.9	South Africa	15.8	7.4	8.4
18	Hungary	10.0	4.0	6.0	Colombia	15.4	7.2	8.2
19	Belgium	9.2	6.0	3.2	Afghanistan	14.3	1.3	13.0
20	Portugal	8.8	3.0	5.8	Republic of Viet-Nam	14.1	2.5	11.6

million urban inhabitants, and only three others (Mexico, Indonesia and Pakistan) have at least 10 million. On the other hand, the list comprises six of the more developed, and eight of the less developed countries with urban populations in the range from 5 to 10 million.

By contrast, large rural populations are much more common in the less developed countries. Mainland China and India alone comprised 45 per cent of the rural population of the entire world. Indonesia and Pakistan combined had as many rural inhabitants as did the Soviet Union and the United States combined. The rural populations of Nigeria and Brazil were each larger than those of Japan or Italy. Altogether, there were only six more developed countries with rural populations greater than 15 million, as against fourteen less developed countries in that category.

Because of varying levels of urbanization, countries do not follow the same rank order in their respective urban and rural populations. The United States had a larger urban population than the Soviet Union, but only one half the size of its rural population. The Federal Republic of Germany and the United Kingdom had larger urban but smaller rural populations than six other European countries (France, Italy, Poland, Romania, Spain, and Yugoslavia). Brazil's rural population was less than that of Nigeria, but its urban population was nearly four times that of the latter. Mexico's urban population was much larger, but its rural population smaller, than those of five among the less developed countries (Turkey, Philippines, Thailand, Republic of Korea, Burma and Ethiopia).

In table 5, the selected countries are grouped according to their respective levels of urbanization. Twelve of the more developed countries, but only one of the less devel-

oped (Mexico) had urbanization levels greater than 50 per cent in 1960. On the other hand, twelve of the less developed countries, but none among the more developed, were less than 25 per cent urbanized. Intermediate urbanization levels, between 25 and 50 per cent, could be noted in eight of the more developed and seven of the less developed countries.

Urbanization levels greater than 60 per cent were characteristic of more developed countries outside Europe, and countries in north-western Europe. Levels between 40 and 60 per cent were found in the Soviet Union and in southern and eastern Europe, on the one hand, and in Latin American countries and South Africa, on the other. Levels between 20 and 40 per cent could be observed in three countries of southern and south-eastern Europe and five countries situated in northern Africa, western Asia and eastern Asia. Some of the most populous countries of Asia and Africa were urbanized to an extent of less than 20 per cent.

E. SEX COMPOSITION OF URBAN AND RURAL POPULATIONS

The urbanization process differs among countries not only with respect to magnitude and tempo of change but also in its economic, social and cultural aspects. Because of their interdependence with economic and social processes, detailed characteristics of urban and rural population change merit more systematic study than has been carried out so far. Such study depends on census data and therefore can only refer to urban and rural populations according to each country's definition.

As one illustration of variations between urban and rural populations—and [differences in these variations among the world's areas—a few summary estimates

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Table 5. Countries listed in table 4 according to percentage of population in places classified as urban

Percentage	More developed countries	Less developed countries
80-84	Australia Netherlands	
75-79	United Kingdom Germany (Federal Republic of)	
70-74	Eastern Germany United States Argentina	
65-69	Canada Belgium	
60-64	Japan France	
55-59	Spain	
50-54		Mexico
45-49	Soviet Union Czechoslovakia Italy Poland	South Africa Colombia Brazil
40-44	Hungary	
35-39		
30-34	Portugal Romania	Iran United Arab Republic Philippines
25-29	Yugoslavia	Republic of Korea Turkey
20-24		
15-19		India Thailand Republic of Viet-Nam Congo (Democratic Republic of) China (mainland) Burma
10-14		Indonesia Pakistan Nigeria
5-9		North Viet-Nam Afghanistan Ethiopia

bearing on sex composition are discussed below. The estimates have resulted from provisional findings in a study now in progress of the structure and dynamics of urban and rural populations at the United Nations.

As can be seen in table 6, in 1960 the numbers of males and females throughout the world were probably almost equal. Nevertheless, there were about 40 million more females than males in the more developed regions, while in the less developed regions there were about 40 million more males than females. The imbalance may result from differences in male and female mortality rates, including in some instances male war losses, possibly in the relative frequency of births of boys and girls[16] and

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[16] In most countries with good vital statistics registers, between 104 and 106 boys are born for every 100 girls born, though there are indications of somewhat lower masculinity ratios among births in negro populations. The possibility exists that sex ratios among births also differ in parts of the world where vital statistics registration is inadequate. Whether they do has not yet been investigated systematically.

sometimes in male and female migration rates. Except for Oceania, where recent immigration has been fairly heavy, the effects of international migration on the sex composition of major world areas are now negligible. By contrast, the effects of different migration rates of men and women from rural to urban localities is frequently considerable.

The analysis of the estimated figures appears in table 7 in terms of masculinity rates (males per 100 females in the population).

In the total population of the more developed regions, there were 92 males per 100 females, whereas in the less developed regions there were 104. Among more developed major areas, Oceania had an excess of males by reason of immigration, as already mentioned. The deficit of males in Europe and the larger deficit in the Soviet Union have resulted mainly from war casualties. Comparatively heavy female mortality is probably the chief reason for the excesses of males in East Asia and South Asia. In Latin America the two sexes are very nearly balanced. The causes of the apparent deficit of males in Africa are not well known.

Both urban and rural places show excesses of females in the more developed regions and excesses of males in the less developed regions. But the female excess in one instance and the male excess in the other are greater in the urban than in the rural localities. Speaking very broadly, cities and towns exert relatively greater attraction on women in the more developed regions and on men in the less developed regions. This trend is illustrated in table 7 which shows the masculinity rates for both urban and rural populations in the eight major areas of the world. The differences between the urban and rural masculinity rates (defined as "net urban excess masculinity rate") appear in the last column of the table. This net rate is positive mostly in the less developed major areas. Conversely, in the more developed areas, the masculinity rate tends to be higher in the rural than in the urban areas, giving a negative net rate.

The reasons for this diversity in the distribution of individuals of either sex between town and countryside are complex. Urban conditions may be responsible. Thus, in most of the less developed areas, where the cities may be lacking in suitable residences for families and there are often few employment opportunities for women, the masculinity rate is higher in the urban areas than in the rural areas. In the cities of the more developed areas, two factors are perhaps important. One is the more suitable residential accommodations for wives and children of male workers in cities of the more developed areas. The second is the tendency for office and other service employments to attract female workers to the cities of more developed areas. However, rural conditions may be no less determining, such as the needs for cash income and varied opportunities for men or women to earn them locally, and differences in family roles and responsibilities on the part of young rural men or women.

Nevertheless, the major areas show considerable variations in this pattern. In the Soviet Union, where there was still a considerable shortage of men in 1960, the shortage appeared somewhat greater in the rural than in the urban sector, while in Latin America, the

Table 6. Males and females in the total, urban and rural population of the world and eight major areas,
1960
(Millions)

Major area	Total population		Urban population		Rural population	
	Males	Females	Males	Females	Males	Females
World total	1,496	1,495	493	499	1,003	996
More developed major areas . .	408	446	238	264	170	182
Europe	206	219	118	129	88	90
Northern America	98	101	67	72	31	29
Soviet Union	96	118	48	58	48	60
Oceania	8	8	5	5	3	3
Less developed major areas . .	1,088	1,049	255	235	833	814
East Asia	408	386	96	85	312	301
South Asia	439	419	83	73	356	346
Latin America	106	106	50	53	56	53
Africa	135	138	26	24	109	114
More developed regions[a] . . .	470	511	278	305	192	206
Less developed regions[b]	1,026	984	215	194	811	790

[a] Europe, Northern America, Soviet Union, Japan, Temperate South America, Australia and New Zealand.

[b] East Asia without Japan, South Asia, Latin America without Temperate South America, Africa and Oceania without Australia and New Zealand.

Table 7. Males per 100 females in the total, urban and rural population of the world and eight major areas,
1960, and excess of urban over rural masculinity rate

Major area	Males per 100 females			Excess urban[a] masculinity[a]
	Total population	Urban population	Rural population	
World total	100	99	101	−2
More developed major areas	91	90	93	−3
Europe	94	91	97	−6
Northern America	97	94	105	−11
Soviet Union	82	83	81	+2
Oceania	105	98	117	−19
Less developed major areas	104	108	102	+6
East Asia	106	114	104	+10
South Asia	105	114	103	+11
Latin America	100	93	106	−13
Africa	98	110	96	+14
More developed regions[b]	92	91	93	−2
Less developed regions[c]	104	111	103	+8

[a] Excess of urban over rural masculinity rate.

[b] Europe, Northern America, Soviet Union, Japan, Temperate South America, Australia and New Zealand.

[c] East Asia without Japan, South Asia, Latin America without Temperate South America, Africa and Oceania without Australia and New Zealand.

urban environment has attracted more women than men, causing females to outnumber males in the urban places and males to outnumber females in the rural places. The opposite situation is encountered in Africa.

Closely related to the level of development in major areas is the level of urbanization (the percentage of total population residing in urban areas). Some relationship can be seen between net masculinity rates and levels of urbanization as illustrated in figure II. In areas such as Africa, South Asia and East Asia where less than 25 per cent of the population reside in urban areas, the net ratio

tends to be positive. (The masculinity ratios are higher in the urban areas than in the rural areas.) The highest ratios are found in Africa and South Asia where the percentage of urban population is only 18. Conversely, in all of the areas which are more than half urbanized (Europe, Northern America and Oceania) the net masculinity rate is negative. (The masculinity rates in the cities are lower than in the rural areas.) In the two areas of intermediate urbanization, namely, the Soviet Union and Latin America where 49 per cent of the population are urban, the net masculinity rates are diverse. The Soviet

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Figure II. Net urban excess masculinity,[a] 1960 and urban population (nationally defined) as percentage of total population
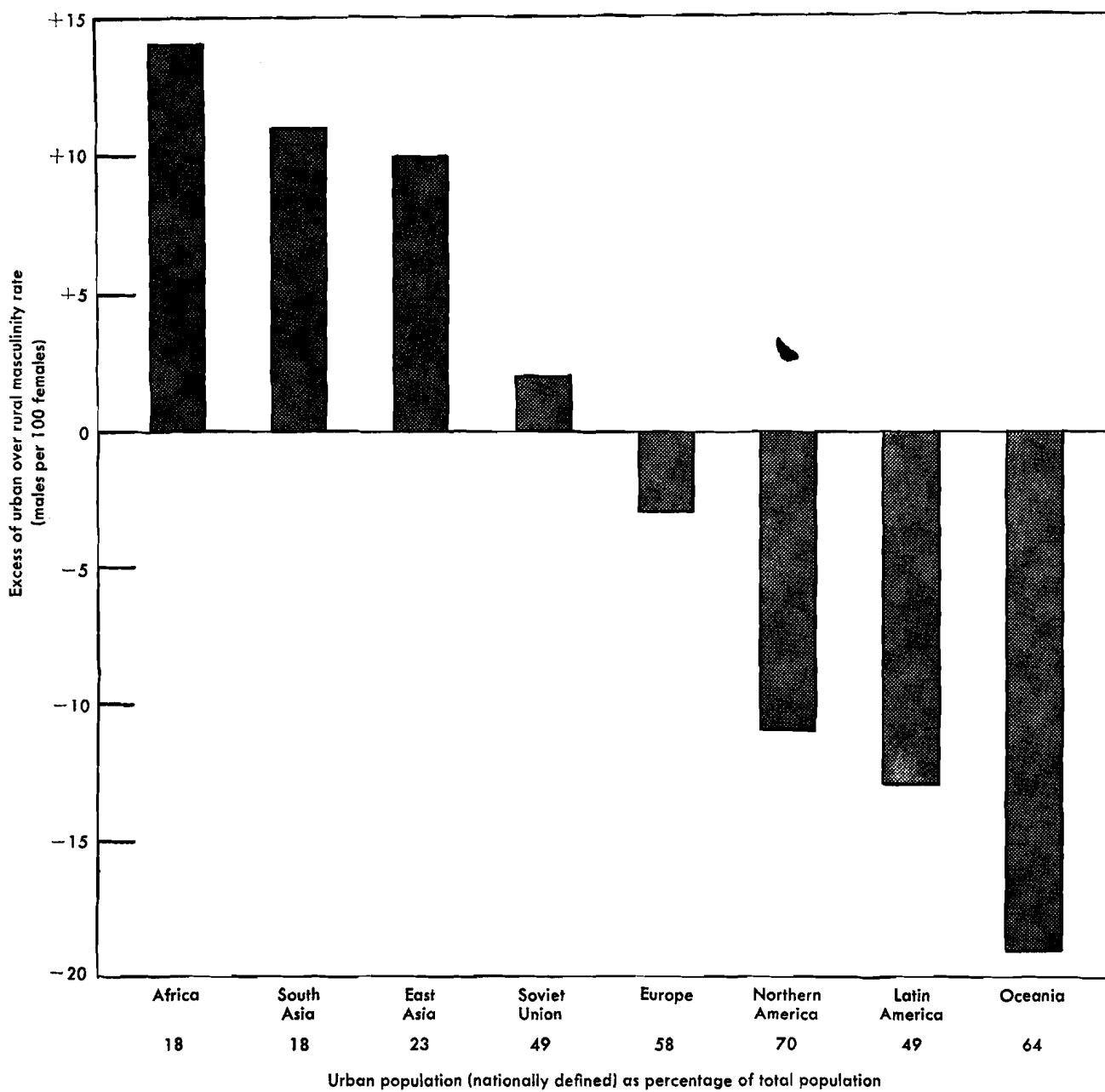
Defined as excess of urban over rural masculinity rate (see text).

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Union has a positive rate and Latin America has a negative rate.

More detailed study shows even wider variations in urban-rural differences of sex ratios among individual countries. In several instances, sex ratios are found to increase, or decrease, systematically with the size of localities. The observations also show that these differences have persisted for some time. In some instances, where an extended time series could be constructed, it appeared that the process of economic development was associated with a gradual feminization of a previously more masculine urban population.

The examination of differences in numbers of males and females merely touches on the surface of a complex social phenomenon. The sex composition of minor children hardly differs between urban and rural places. Accordingly, differences in numbers of men and women are much more marked at certain ages, especially among adolescents and young adults seeking urban employment.

Differences in culture patterns, marital customs, needs for cash earnings and types of wage employment existing in urban and rural areas cause either more young men or more young women to move from villages into towns. Opportunities for migrant workers to accommodate families in the towns again differ, hence in some countries lone migrants may sooner or later be joined by wives and children whereas in others they more often tend to return periodically or finally to their rural places of origin. The stability of urban residence and the composition of urban and rural households will vary accordingly.

With such a diversity of conditions — whose documentation requires a much more detailed study — the economic and social significance of the urbanization process can differ greatly from one region to another. Such diverse circumstances can have important and varied implications for policies of economic and social development.

Chapter II

WORLD URBANIZATION TRENDS AS MEASURED IN AGGLOMERATIONS, 1920-1960

A. PROBLEMS OF TREND STUDY

The variability of census data on urban and rural populations, not only among countries but between recent successive censuses for many individual countries has been discussed at some length in chapter I. For twenty-six out of sixty-one countries, the estimates of "urban" population for 1950 and 1960 could not be based on data explicitly and comparably defined in two successive censuses.[1] Such difficulties are considerably magnified when estimates of world-wide trends over a longer time span are the objective. Even countries with a long tradition of census-taking contribute to the problems when the character of their recent urbanization differs greatly from trends that followed established historic concepts.

In attempting to reach concepts of urban population suitable for comparability, the distinction of urban localities greater than some specified minimum size offers a feasible substitute for census definitions using other criteria. As stated in the preceding chapter, size is already the standard for urban places in a number of censuses, and its utility is stressed in international recommendations. In addition, the plentiful supply of census data and estimates for selected urban centres and the use of auxiliary methods often facilitates a rough estimation of the combined population of those urban places which are at least of some appreciable size. As with urban definitions, these data also vary in scope and quality, and their quantitative precision is in doubt; yet, with locality size as the standard of measurement it is possible to discern a clearer indication of population distribution and its changes.

B. NOMENCLATURE ADOPTED FOR THE PRESENT PURPOSE

The available data suggest that the most extensive estimates can be made, with at least tolerable approximation, for the population of localities with 20,000 or more inhabitants. To extend estimates to smaller localities would involve too much conjecture; to confine them to larger localities would leave large urban populations out of account. But the size limit of 20,000 is still somewhat high when related to the many lower-order localities

included in the "urban" population as defined in most countries.[2]

To avoid a confusion of terms, it is therefore necessary to devise a special nomenclature when dealing with localities by size class. It can be readily assumed that the "urban" population, however defined, includes all localities above the limit of 20,000 and, in addition, varying numbers of smaller localities. For the lack of a better term in the demographic vocabulary, the population of localities with 20,000 or more inhabitants will here be referred to as the "agglomerated" population.

It is hoped that the term "agglomerated" will not be misinterpreted, since smaller localities, whether small towns or villages, also constitute agglomerations. The term was adopted mainly to avoid repetitive use of long expressions, such as "localities with 20,000 or more inhabitants" or, more succinctly, "city and big-town population". It was also thought that the term would serve to indicate that the estimates are intended to refer, so far as possible, to localities within the physical contours of dense settlement rather than within administrative or regional boundaries.[3]

Certain theoretical considerations suggested that successive size limits of locality groups should be determined by a constant multiplier,[4] and a multiplier of five

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[2] As already noted, many smaller localities can be considered as typically "urban" especially in areas which combine a high level of economic development with rather sparsely settled territory.

[3] It must be admitted that the word "agglomeration" has been used in different contexts, and there is some risk of adding to the confusion of existing terminology. In various writings, especially in French, the term "agglomeration" has often been used mainly to describe a major city including its suburbs. In some other writings, the term "agglomeration" has been used to denote areas of compact settlement irrespective of size or detailed composition. For the latter purpose, however, the term "population nucleus" has recently come into more frequent use, hence this source of possible confusion may be dispelled.

[4] In certain modal distributions, numbers of units contained in aggregates grouped according to size by such a principle are theoretically equal. One such modal distribution is that of the "rank-size rule" used in the study of the size distribution of cities and towns; another is the "Pareto curve" used in the description of distributions of income. Whether or not city size distribution in equilibrium should conform to such a rule has been much debated, especially in the discussion of economic conditions in countries with a "primate city", i.e., a single city much larger in size than those next in the order of size. Though not necessarily normative, the "rank-size rule" does provide a gauge for the measurement of varying slopes in city size distribution in actual situations. True, in the present report the study is not carried so far, nor is there any intention to support one or another theory.

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[1] Details are given in annex II.

was adopted leading to the size limits of 20,000, 100,000, 500,000, 2,500,000 and 12,500,000. Since data could not be systematically assembled for a study of the structure of the rural and small-town habitat, the scheme was not extended downwards to smaller size limits (e.g., 4,000, 800, 160), though perhaps rural settlement patterns should also be studied from this point of view.

Areas of compact settlement distinguished by the number of inhabitants within their contours comprise the following categories:[5]

(1) "Agglomerated" or "city and big-town":

    (a) Super-conurbations: 12,500,000 or more inhabitants;

    (b) Multimillion cities: 2,500,000 or more inhabitants;

    (c) Big-city population: 500,000 or more inhabitants;

    (d) City population: 100,000 or more inhabitants;

    (e) Agglomerated population: 20,000 or more inhabitants;

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[5] This classification scheme is not necessarily recommended for all purposes. For example, a cutting point of 300,000 may be significant for certain purposes as it has been observed that 300,000 is apparently a minimum size limit for a wide variety of diverse economic and social functions. The nomenclature used to describe the size categories is arbitrary. In English, the distinction between "city" and "town" was convenient for purposes of our nomenclature. For purposes of usage in French, Professor P. George, who reviewed this report, suggests the following terms:

	Number of inhabitants
Régions urbaines de dimension exceptionnelle . . .	12,500,000 or more
Régions urbaines plurimillionaires	2,500,000–12,499,999
Capitales ou métropoles régionales	500,000– 2,499,999
Centres régionaux	300,000– 499,999
Grandes villes	100,000– 299,999
Villes moyennes	20,000– 99,999
Petites villes	5,000– 19,999

C. Doxiadis, on the other hand, has proposed a more inclusive classification scheme which can be used for past and present settlements as well as future settlements which may become extremely large by present standards.

	Minimum number of inhabitants
Dwelling group	40
Small neighbourhood	250
Neighbourhood	1,500
Small town	9,000
Town	50,000
Large city	300,000
Metropolis	2 million
Conurbation	14 million
Megalopolis	100 million
Urban region	700 million
Urban continent	5,000 million
Ecumenopolis	30,000 million

See Constantinos A. Doxiadis, *Ekistics* (New York, Oxford University Press, 1968).

The Statistical Office of the United Nations recommends the following classification for purposes of census tabulation:

Number of inhabitants
500,000 or more
100,000–499,999
50,000– 99,999
20,000– 49,999
10,000– 19,999
5,000– 9,999
2,000– 4,999
1,000– 1,999
500– 999
200– 499
Less than 200

See *Principles and Recommendations for National Population Censuses* (United Nations publication, Sales No.: 58.XVII.5), p. 11.

(2) "Rural and small-town" population:

    (a) Small-town population: towns smaller than 20,000 inhabitants but included among "urban" according to national definitions;

    (b) Rural population: population not classified as "urban" in national definitions.

For certain purposes, a distinction will also be made between "big-city population" (localities with 500,000 and more inhabitants) and "other agglomerated population" (localities with 20,000-499,999 inhabitants). There were two "super-conurbations" in 1960, namely New York (including north-eastern New Jersey) and Tokyo (including Yokohama), each with over 12,500,000 inhabitants within the contours of contiguous dense settlement. It is possible that agglomerations of such size will become more numerous in the future. The term was selected to distinguish the concept of a large compact agglomeration from regional or functional concepts such as "metropolitan area" or "megalopolis".

Because of varied modes of delimitation of "localities" it is not always possible to derive the "small-town population" by a simple subtraction of "agglomerated population" from "urban population" as defined in national census data. The lower size limit of "small towns", furthermore, would vary widely among census data differently defined. Accordingly, in the present report only vague approximations to an estimate of "small-town population" could be attempted.

C. METHODS ADOPTED TO ESTIMATE LONG-RUN TRENDS

To gain some perspective on recent and possible future trends, it is necessary to review the growth of urban and rural population over several decades. Only against the background of a longer period can it be judged whether the recent phase of rapid urbanization has been extraordinary or is merely one phase having a sustained momentum.

For reasons already stated, data covering more than the recent decade had to be sought, so far as possible, in terms of "agglomerated" population (localities of 20,000 or more inhabitants) rather than "urban" population as variously defined. The relationship between "agglomerated" and "urban" population is further discussed in the following chapter.

This chapter presents urbanization trends in terms of the comparative growth of "agglomerated" population, and "rural and small-town" population. The estimates are for mid-year 1920, 1930, 1940, 1950 and 1960. Again, the estimates had to be synchronized to those dates by means of interpolation or extrapolation. The reservations pertaining to comparisons of data interpolated in a number of ways also apply here.[6] Since war-time destruction has interfered with urban growth in many countries, interpolations to the dates of 1940 or 1950 had to be avoided in several instances and extrapolations from pre-war or post-war data substituted.

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[6] See the discussion in chapter I, sections A and B.

Aside from this consideration, and owing to the diverse types of information, several additional procedures had to be applied to the data of most countries before these could be subjected to interpolation or extrapolation. The methods of selection and estimation are too involved to permit their detailed description in a brief summary. Methods used with respect to some of the larger countries are described in annex III to this report.

For countries with well-established census procedures, the totals corresponding to localities of 20,000 or more inhabitants could often be taken as given, but for some countries there was some uncertainty whether the available data for selected cities and towns included all those with 20,000 or more inhabitants, and for others it was certain that they did not. Nevertheless, for nearly every country at least some data for individual, or important, towns and cities have been obtained in censuses and surveys at a number of dates in the past.

Assumptions then had to be made implying that the earlier growth of towns other than those for which data were given were more or less parallel with that of cities and towns which had such documentation. In small countries, or those which could have had only a few such towns, the assumed rate of growth could be applied to each individual town; in large countries, where such towns were numerous, it had to be estimated that the population in the combined group of towns on which there was no detailed information for earlier dates stood in a constant, or a constantly varying, proportion to the population of those cities for which information existed for earlier as well as recent dates. For some countries, lacking even recent information concerning all towns of at least 20,000, it had to be assumed that the ratio of the latter's population to that of the chief city equalled that found in some other countries of the same region.

In this context it is worth noting that in many African countries there has been more extensive census information in past decades concerning their chief cities — not many of which were large in the past — than for their hinterlands. Dubious though they may be, the estimates of "agglomerated" population in those instances probably reflect actual trends more closely than do the often rather crude estimates of total population.

A similar observation can be made concerning the estimates for mainland China. At certain past dates, population data on all towns larger than either 50,000, 100,000 or 200,000 inhabitants have been published. From the shape of the size distribution of towns with published data, and with reference to corresponding size distributions elsewhere, notably in India, it was then possible to estimate what might have been the combined population of smaller towns in mainland China for which specific information was not found. While necessarily rough, considering also the incalculable consequences of warlike events upon the population of individual cities, the estimated trends of "agglomerated" population in China are based on more extensive documentation than are the highly speculative estimates on past trends in mainland China's total population.

It must be noted, however, that for many of the smaller countries the only information found for the present purposes consisted of mere figures cited here or there in sources such as almanacs, encyclopædias or gazetteers.

The published figures are not qualified by any comment specifying how they have been arrived at, to what date they refer or within what administrative limits they may have been applicable. On the whole, it had to be assumed that each such figure pertained to a date shortly before its first appearance in a publication. Where there appeared to be some incongruities among figures for the same cities it had to be assumed that smaller figures referred to the inhabitants of strictly municipal territory whereas larger figures may have included surrounding areas such as entire districts or even a province. The comparative size of alternative estimates, and their compatibility with a plausible time trend, then constituted the criteria for the selection of some estimates and the rejection of some others. It must be admitted that in the absence of other qualifying information the method of selection could only be rather arbitrary. Since, furthermore, the vague estimates for chief cities sometimes still had to serve as a basis for the estimation of population in other localities larger than 20,000, it is quite obvious that considerable misjudgements may have been made in a number of instances. Most of the countries with such a tenuous basis for estimation could not have contained very large urban population in those earlier decades. But several of those countries are situated in South-East and South-West Asia, hence the earlier estimates for those two regions are uncertain.

The most serious problem — and this concerns many countries with large urban populations and extensive census information — arose in the selection of estimates which should reflect, as closely as possible, the population of "agglomerations" rather than of cities as defined either by administrative or by regional boundaries. Because of variations of administrative forms and census procedures it was not possible to adhere to any constant principle in the choice of appropriate combinations of data. Nor was it possible, in most instances, to allow for time variations in the geographic areas to be considered to provide an equivalent or an approximation for the population within the urbanized terrain at each point in time. The attempt at comparable estimation may have been more defective in some regions than in others.

Nor was it possible to extend these considerations to all cities and towns, regardless of size. In the case of several countries, e.g., the United Kingdom, Federal Republic of Germany and Japan, the effort to delimit some of the more extensive agglomerations was confined to conurbations totalling at least 500,000 inhabitants. The result is some loss of comparability with estimates of population in smaller cities and towns for which data within administrative limits had to be substituted. More detail on procedures used in estimating agglomerated populations in some of the larger countries will be found in annex III.

Broadly speaking, available data made it possible to define areas wider than the municipal limits for many countries of northern and western Europe but not for so many countries of southern and eastern Europe, hence in the latter two regions the levels of urbanization may be comparatively underestimated. Because of lack of geographic variability of defined areas in time, on the

other hand, the rate of growth of "agglomerated" population in northern and western Europe may also be underestimated.[7] For Northern America, where it was possible to link the presumable past trend in the population of "urbanized areas" to that of the data concerning "metropolitan areas", the assesment of growth in estimated "agglomerated" population may come closer to the facts. In the Soviet Union it is perhaps fair to assume that the frequent extensions in city boundaries have responded with reasonable approximation to actual expansions of urbanized terrain. For Japan, where there has been an unusually rapid enlargement of municipal territories in the 1950s, it was necessary to estimate "agglomerated" population for recent years from different sets of data than those used in the estimates for earlier dates, hence there is much doubt whether a reasonable degree of comparability has been attained. For some of the major cities in Latin America, limits of territory had to be defined in the same manner as that used in a study on "metropolitan areas" carried out some years ago,[8] again with the probable result that the population of contiguous urbanized territory has been somewhat overestimated for earlier dates and its rate of growth somewhat underestimated.

These and other shortcomings of estimation clearly detract from the scientific standards desired in the present effort. It is true that estimates in various areas could have been rendered somewhat more precise with continued extensive research. But it was felt that at least a rough overview of world urbanization trends is now so much needed that tolerably usable results had to be preferred over more refined estimates obtainable only with much additional labour. Competent research institutes, endowed with adequate facilities, may very well produce other estimates with a greater accuracy than can be claimed in the present report.

In view of the admittedly low order of precision of many of the estimates, it was often decided to substitute grossly rounded figures for the more detailed figures that might have resulted from a strictly formal calculation. This was done wherever, because of vagueness in the accuracy or definition of basic data, the more detailed calculation was unlikely to increase the accuracy of the result. With the partial compensation of errors in unbiased estimates, it can nevertheless be assumed that the combined urbanization trends of the world, or its major areas, have been estimated with greater relative accuracy than the trends in individual countries.

D. ESTIMATES OF AGGLOMERATED AND RURAL AND SMALL-TOWN POPULATION, 1920-1960

Estimates are assembled in table 8 showing the total population and that of localities greater or smaller than 20,000 for major world areas at decennial dates from 1920 to 1960. The estimates of total population are taken from a recent study of world population trends, with one exception.[9]

The total population of the world attained nearly 1.9 billion human beings in 1920 and about 3.0 billion in 1960. In those forty years mankind's numbers have grown by an estimated 61 per cent. The increase was by 45 per cent in the more developed regions and by 70 per cent in the less developed regions. Among the world's major areas, numbers more than doubled in Latin America and almost doubled in Oceania, South Asia and Africa. In Northern America, the population grew by 72 per cent, in East Asia by 44 per cent, in the Soviet Union by 38 per cent and in Europe by 31 per cent.

The world's agglomerated population (cities and big towns over 20,000) almost trebled in the forty years, from one quarter of a billion in 1920 to three quarters of a billion in 1960. This includes a doubling of the agglomerated population of the more developed regions, from nearly 200 million in 1920 to nearly 450 million in 1960, and a quadrupling in the less developed regions where the agglomerated population totalled less than 70 million in 1920 but more than 300 million in 1960.

The size of agglomerated population and rural and small-town population at each of the decennial dates from 1920 to 1960 is illustrated in figure III. By 1960, agglomerated population had attained five times its 1920 size in Latin America and Africa, nearly five times in the Soviet Union, more than four times in South Asia and nearly four times in East Asia. In Northern America and Oceania the agglomerated population had grown to two and one-half times its 1920 size and in Europe it had increased by two thirds.

The world's rural and small-town population, 1.6 billion in 1920 and more than 2.2 billion in 1960, had grown by 40 per cent in forty years, and most of this growth occurred in the less developed regions. In more developed regions, rural and small-town population was 11 per cent larger in 1960 than it had been in 1920, but in less developed regions it was 52 per cent larger.

Rural and small-town population apparently increased 86 per cent in Latin America, 74 per cent in Africa, 67 per cent in South Asia and 37 per cent in Oceania. In Europe, Northern America and East Asia the increases were by one quarter or less, and in the Soviet Union rural and small-town population was somewhat smaller in 1960 than it had been in 1940, partly because of large population losses incurred in the war between 1941 and 1945.

It is worth noting that, despite a considerable growth of cities in both areas, the forty years' increase in Europe's agglomerated population, i.e., by 66 per cent, was no faster than that in South Asia's rural and small-town

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[7] The population of contiguous urbanized territory may have been smaller at earlier dates, and larger at the most recent dates, than that of "conurbations" etc., as geographically delimited on some more or less recent occasion.

[8] K. Davis, *The World's Metropolitan Areas*, International Urban Research, University of California (Berkeley, California, 1959). This study is the basis of an alternative classification discussed at length in chapter III.

[9] *World Population Prospects as Assessed in 1963* (United Nations publication, Sales No.: 66.XVII.2). In that publication, an adjusted estimate was made for Pakistan in 1960. In order to maintain consistency with the time series for preceding years it was preferred to retain the estimate as presented in "Provisional report on world population prospects, as assessed in 1963" (ST/SOA/SER.R/7, 1964).

Figure III. Agglomerated and rural and small-town population in eight major areas of the world, 1920-1960
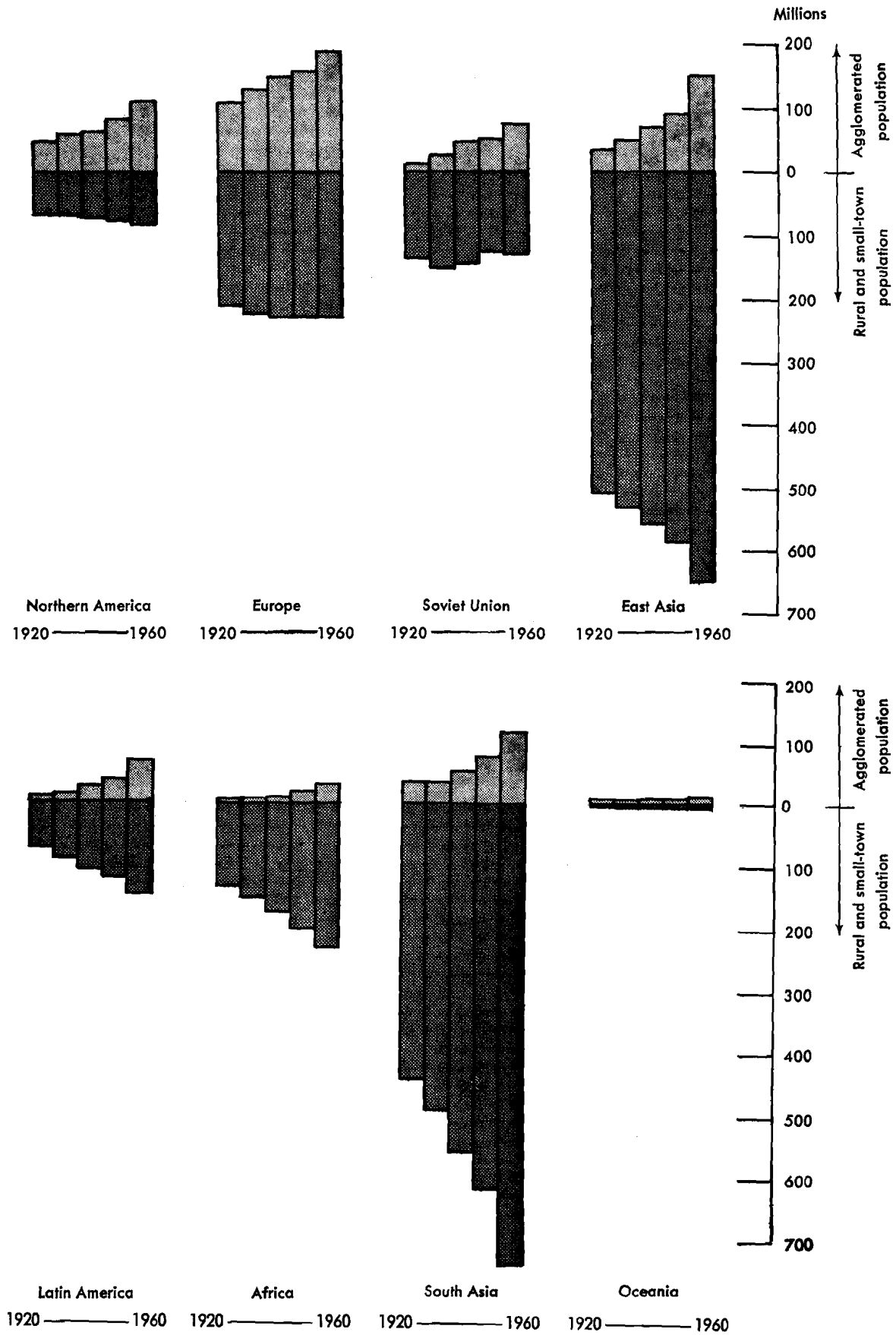
Table 8. Total agglomerated and rural and small-town population in the world and major areas, 1920-1960, and 1960 population relative to 1920 population

Major area	1920	1930	1940 (Millions)	1950	1960	Index, 1960 (1920 = 100)
Total population						
World total	1,860.0	2,068.6	2,295.1	2,515.5	2,990.8	161
More developed major areas	604.4	677.1	729.2	750.6	853.5	141
Europe	324.9	353.9	378.9	391.8	424.7	131
Northern America	115.7	134.2	144.3	166.1	198.7	172
Soviet Union	155.3	179.0	195.0	180.0	214.4	138
Oceania	8.5	10.0	11.0	12.7	15.7	184
Less developed major areas	1,255.6	1,391.5	1,565.9	1,764.9	2,137.3	170
East Asia	553.4	591.2	634.4	684.3	794.1	144
South Asia	469.8	529.0	610.1	696.7	857.9	183
Latin America	89.5	107.5	129.9	162.4	212.4	237
Africa	142.9	163.8	191.5	221.5	272.9	191
More developed regions	672.7	757.9	820.6	857.8	976.5	145
Less developed regions	1,187.3	1,310.7	1,474.5	1,657.7	2,014.1	170
Agglomerated population (localities of 20,000 or more inhabitants)						
World total	266.4	338.2	431.5	533.0	760.3	285
More developed major areas	179.9	222.0	267.9	299.6	389.5	217
Europe	112.9	131.8	149.8	159.5	187.9	166
Northern America	47.9	62.4	66.6	84.3	115.3	241
Soviet Union	16.0	24.0	47.0	50.0	78.0	488
Oceania	3.1	3.8	4.5	5.8	8.3	266
Less developed major areas	86.5	116.2	163.6	233.4	370.8	429
East Asia	39.8	53.9	73.7	94.1	147.1	370
South Asia	26.9	34.5	50.6	77.1	117.5	437
Latin America	12.9	18.1	25.5	40.7	69.7	540
Africa	6.9	9.7	13.8	21.5	36.5	535
More developed regions	197.7	247.1	303.9	343.2	449.6	227
Less developed regions	68.7	91.1	127.6	189.8	310.7	452
Rural and small-town population (localities smaller than 20,000)						
World total	1,593.6	1,730.4	1,863.6	1,982.5	2,230.5	140
More developed major areas	424.5	455.1	461.3	451.0	464.0	109
Europe	212.0	222.1	229.1	232.3	236.8	112
Northern America	67.8	71.8	77.7	81.8	83.4	123
Soviet Union	139.3	155.0	148.0	130.0	136.4	98
Oceania	5.4	6.2	6.5	6.9	7.4	137
Less developed major areas	1,169.1	1,275.3	1,402.3	1,531.5	1,766.5	151
East Asia	513.6	537.3	560.7	590.2	647.0	126
South Asia	442.9	494.5	559.5	619.6	740.4	167
Latin America	76.6	89.4	104.4	121.7	142.7	186
Africa	136.0	154.1	177.7	200.0	236.4	174
More developed regions	475.0	510.8	516.7	514.6	526.9	111
Less developed regions	1,118.6	1,219.6	1,346.9	1,467.9	1,703.4	152

population (67 per cent), although in the latter region agglomerated population meanwhile quadrupled. This a nd other comparisons show the interdependence between rates of growth in total, urban and rural population on the one hand and urbanization levels already attained on the other.

As a consequence of differing rates of growth, there also occurred in recent decades a considerable redistribution in the world's total, urban and rural populations, and this can be inferred from the percentages of world totals shown in table 9.

E. INCREASES IN AGGLOMERATED AND IN RURAL AND SMALL-TOWN POPULATION, 1920-1960

The world's total population increased between 1920 and 1960 by more than 1,100 million. As shown in table 10, nearly 500 million of that increase accrued to the population of agglomerations larger than 20,000 and nearly 640 million to the world's rural and small-town population.

In both the more developed and the less developed regions, the 1920-1960 additions to agglomerated popu-

Table 9. Percentages of world's total, agglomerated and rural and small-town population in each of the major areas, 1920-1960

Major area	1920	1930	1940	1950	1960
Total population					
World total	100.0	100.0	100.0	100.0	100.0
More developed major areas	32.5	32.8	31.8	29.9	28.5
Europe	17.5	17.1	16.5	15.6	14.2
Northern America	6.2	6.5	6.3	6.6	6.6
Soviet Union	8.3	8.7	8.5	7.2	7.2
Oceania	0.5	0.5	0.5	0.5	0.5
Less developed major areas	67.5	67.2	68.2	70.1	71.5
East Asia	29.7	28.7	27.6	27.1	26.6
South Asia	25.3	25.6	26.6	27.7	28.7
Latin America	4.8	5.2	5.7	6.5	7.1
Africa	7.7	7.9	8.3	8.8	9.1
More developed regions	36.2	36.6	35.8	34.1	32.7
Less developed regions	63.8	63.4	64.2	65.9	67.3
Agglomerated population					
World total	100.0	100.0	100.0	100.0	100.0
More developed major areas	67.6	65.7	62.0	56.4	51.3
Europe	42.4	39.0	34.7	30.1	24.7
Northern America	18.0	18.5	15.4	15.8	15.2
Soviet Union	6.0	7.1	10.9	9.4	10.3
Oceania	1.2	1.1	1.0	1.1	1.1
Less developed major areas	32.4	34.3	38.0	43.6	48.7
East Asia	15.0	15.8	17.2	17.5	19.2
South Asia	10.0	10.2	11.7	14.5	15.5
Latin America	4.8	5.4	5.9	7.6	9.2
Africa	2.6	2.9	3.2	4.0	4.8
More developed regions	74.2	73.1	70.4	64.4	59.1
Less developed regions	25.8	26.9	29.6	35.6	40.9
Rural and small-town population					
World total	100.0	100.0	100.0	100.0	100.0
More developed major areas	26.6	26.3	24.7	22.7	20.7
Europe	13.3	12.8	12.3	11.7	10.6
Northern America	4.3	4.1	4.2	4.1	3.7
Soviet Union	8.7	9.0	7.9	6.6	6.1
Oceania	0.3	0.4	0.3	0.3	0.3
Less developed major areas	73.4	73.7	75.3	77.3	79.3
East Asia	32.3	31.0	30.2	29.8	29 1
South Asia	27.8	28.6	30.0	31.3	33.2
Latin America	4.8	5.2	5.6	6.1	6.4
Africa	8.5	8.9	9.5	10.1	10.6
More developed regions	29.8	29.5	27.7	26.0	23.6
Less developed regions	70.2	70.5	72.3	74.0	76.4

lation amounted to about 250 million. But whereas during that time only about 50 million were added to the rural and small-town population in the more developed regions, the increment in this population category in the less developed regions totalled nearly 600 million or more than half the entire increase in the world's total population. Of the latter figure, nearly 300 million was added to the rural and small-town population in South Asia.

Cities and big towns increased from 1920 to 1960 by an estimated 107 million inhabitants in East Asia, 91 million in South Asia, 75 million in Europe, 67 million in Northern America, 62 million in the Soviet Union, 57 million in Latin America, 30 million in Africa and 5 million in Oceania. Agglomerated population grew more than the total population in the Soviet Union (where rural and small-town population was reduced) and it absorbed

between 70 and 80 per cent of the population growth in Europe, Northern America and Oceania. In East Asia and Latin America, the 1920-1960 growth of agglomerated population accounted for 45 or 46 per cent of the total population growth; in South Asia and Africa, the additions to agglomerated population equalled about 23 per cent of the additions to the total population. East Asia and Latin America are the two areas where it can be estimated that urban population increments began to exceed rural population growth in the decade following 1950.

Considering the decades separately, we note that the world's population increased by about 210 or 220 million in the 1920s, 1930s and 1940s, but in the 1950s an estimated 475 million were added to all of mankind's numbers. This recent acceleration is reflected in a quickened growth of the agglomerated population in each major area and also

**Table 10. Amounts of increase in total, agglomerated and rural and small-town population, 1920-1960
and each decade, in the world and major areas**

(Millions)

Major area	1920-1960	1920-1930	1930-1940	1940-1950	1950-1960
Total population					
World total	1,130.8	208.6	226.5	220.4	475.3
More developed major areas	249.1	72.7	52.1	21.4	102.9
Europe	99.8	29.0	25.0	12.9	32.9
Northern America	83.0	18.5	10.1	21.8	32.6
Soviet Union	59.1	23.7	16.0	−15.0	34.4
Oceania	7.2	1.5	1.0	1.7	3.0
Less developed major areas	881.7	135.9	174.4	199.0	372.4
East Asia	240.7	37.8	43.2	39.9	109.8
South Asia	388.1	59.2	81.1	86.6	161.2
Latin America	122.9	18.0	22.4	32.5	50.0
Africa	130.0	20.9	27.7	30.0	51.4
More developed regions	303.8	85.2	62.7	37.2	118.7
Less developed regions	826.8	123.4	163.8	183.2	356.4
Agglomerated population					
World total	493.9	71.8	93.3	101.5	227.3
More developed major areas	209.6	42.1	45.9	31.7	89.9
Europe	75.0	18.9	18.0	9.7	28.4
Northern America	67.4	14.5	4.2	17.7	31.0
Soviet Union	62.0	8.0	23.0	3.0	28.0
Oceania	5.2	0.7	0.7	1.3	2.5
Less developed major areas	284.3	29.7	47.4	69.8	137.4
East Asia	107.3	14.1	19.8	20.4	53.0
South Asia	90.6	7.6	16.1	26.5	40.4
Latin America	56.8	5.2	7.4	15.2	29.0
Africa	29.6	2.8	4.1	7.7	15.0
More developed regions	251.9	49.4	56.8	39.3	106.4
Less developed regions	242.0	22.4	36.5	62.2	120.9
Rural and small-town population					
World total	636.9	136.8	133.2	118.9	248.0
More developed major areas	39.5	30.6	6.2	−9.7	13.0
Europe	24.8	10.1	7.0	3.2	4.5
Northern America	15.6	4.0	5.9	4.1	1.6
Soviet Union	−2.9	15.7	−7.0	−18.0	6.4
Oceania	2.0	0.8	0.3	0.4	0.5
Less developed major areas	597.4	106.2	127.0	129.2	235.0
East Asia	133.4	23.7	23.4	29.5	56.8
South Asia	297.5	51.6	65.0	60.1	120.8
Latin America	66.1	12.8	15.0	17.3	21.0
Africa	100.4	18.1	23.6	22.3	36.4
More developed regions	51.9	35.8	5.9	−2.1	12.3
Less developed regions	584.8	101.0	127.3	123.0	235.5

of the rural and small-town population in all areas except Northern America and Oceania.

In the more developed regions, the growth in total population slackened in the three decades between 1920 and 1950, amounting to more than 80, more than 60, and less than 40 million, respectively; but in the 1950s it amounted to almost 120 million. In the less developed regions, the increments to total population rose gradually in the earlier decades, being estimated as more than 120 million, more than 160 million, and more than 180 million, and then they shot up to nearly 360 million in the 1950s.

The decennial growth in agglomerated population in the more developed regions fluctuated around 50 million in the decades between 1920 and 1950 and then rose to over 100 million in the 1950s. Economic depression retarded urban growth in the 1930s in Northern America, and the war set it back in the 1940s in Europe and the Soviet Union, hence the resurgence of urban growth in the 1950s stands out sharply. In the less developed regions, the growth of agglomerated population shows a steadily accelerating tempo, the estimated increases amounting to more than 20 million in the 1920s, less than 40 million in the 1930s, more than 60 million in the 1940s and over 120 million in the 1950s. Except for a retardation in East Asia in the 1940s, evidently due to war-time destruction and disorganization, urbanization in all the less developed areas has accelerated steadily and has attained an unprecedented speed.

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Table 11. Estimated average annual rates of growth in total, agglomerated and rural and small-town
population in the world and major areas, 1920-1960

(Percentage)

Major area	1920-1930	1930-1940	1940-1950	1950-1960
Total population				
World total	1.1	1.1	0.9	1.7
More developed major areas . . .	1.1	0.7	0.3	1.3
Europe	0.9	0.7	0.3	0.8
Northern America	1.5	0.7	1.4	1.8
Soviet Union	1.4	0.9	−0.8	1.8
Oceania	1.7	1.0	1.4	2.3
Less developed major areas	1.0	1.2	1.2	1.9
East Asia	0.7	0.7	0.8	1.5
South Asia	1.2	1.4	1.3	2.1
Latin America	1.8	1.9	2.3	2.8
Africa	1.4	1.6	1.5	2.1
More developed regions	1.2	0.8	0.4	1.3
Less developed regions	1.0	1.2	1.2	2.0
Agglomerated population (20,000 and over)				
World total	2.4	2.5	2.1	3.6
More developed major areas . . .	2.1	1.9	1.1	2.7
Europe	1.6	1.3	0.6	1.7
Northern America	2.7	0.7	2.4	3.2
Soviet Union	4.1	7.0	0.6	4.5
Oceania	2.0	1.8	2.6	3.5
Less developed major areas	3.0	3.5	3.6	4.7
East Asia	3.1	3.2	2.5	4.6
South Asia	2.5	3.9	4.3	4.3
Latin America	3.4	3.5	4.8	5.5
Africa	3.6	3.6	4.5	5.4
More developed regions	2.3	2.1	1.2	2.7
Less developed regions	2.9	3.4	4.1	5.1
Rural and small-town population (localities up to 20,000)				
World total	0.8	0.7	0.6	1.2
More developed major areas . . .	0.7	0.1	−0.2	0.3
Europe	0.5	0.3	0.1	0.2
Northern America	0.6	0.8	0.5	0.2
Soviet Union	1.1	−0.5	−1.3	0.5
Oceania	1.5	0.4	0.4	0.9
Less developed major areas	0.9	1.0	0.9	1.4
East Asia	0.5	0.4	0.6	0.9
South Asia	1.1	1.2	1.0	1.8
Latin America	1.5	1.6	1.5	1.6
Africa	1.3	1.4	1.2	1.7
More developed regions	0.7	0.1	0.0	0.2
Less developed regions	0.9	1.0	0.9	1.5

Rural and small-town population in the more developed regions still had an estimated increase of 36 million between 1920 and 1930, but comparatively small increases since then; its net decrease in the 1940s reflects the considerable losses in rural population which then occurred in the Soviet Union. In less developed regions, rural and small-town population is estimated to have grown by about 100 million in the 1920s, around 125 million in both the 1930s and 1940s and nearly 240 million in the 1950s. In each decade, about one-half of the world's increase in rural and small-town population occurred within the area of South Asia. Rural increases were thus much more unevenly distributed among the world's major areas than were the increases in urban, or agglomerated, population. This has continued to be the situation although an increasing share of the world's urban growth occurred in less developed areas.

The foregoing comments concern the sheer *amounts* of population growth. Since investments for the development of the respective urban and rural economies must be generated to a large extent within the societies themselves, it is of interest to change the perspective and to consider also the comparative *rates* at which urban and rural populations have been growing. The annual rates of growth, as calculated by the compound-interest formula, are presented in table 11. The cumulative effect of varied

Figure IV. Ratio of population in 1930, 1940, 1950 and 1960 relative to 100 population in 1920, in eight major areas of the world (total, agglomerated and rural and small-town)
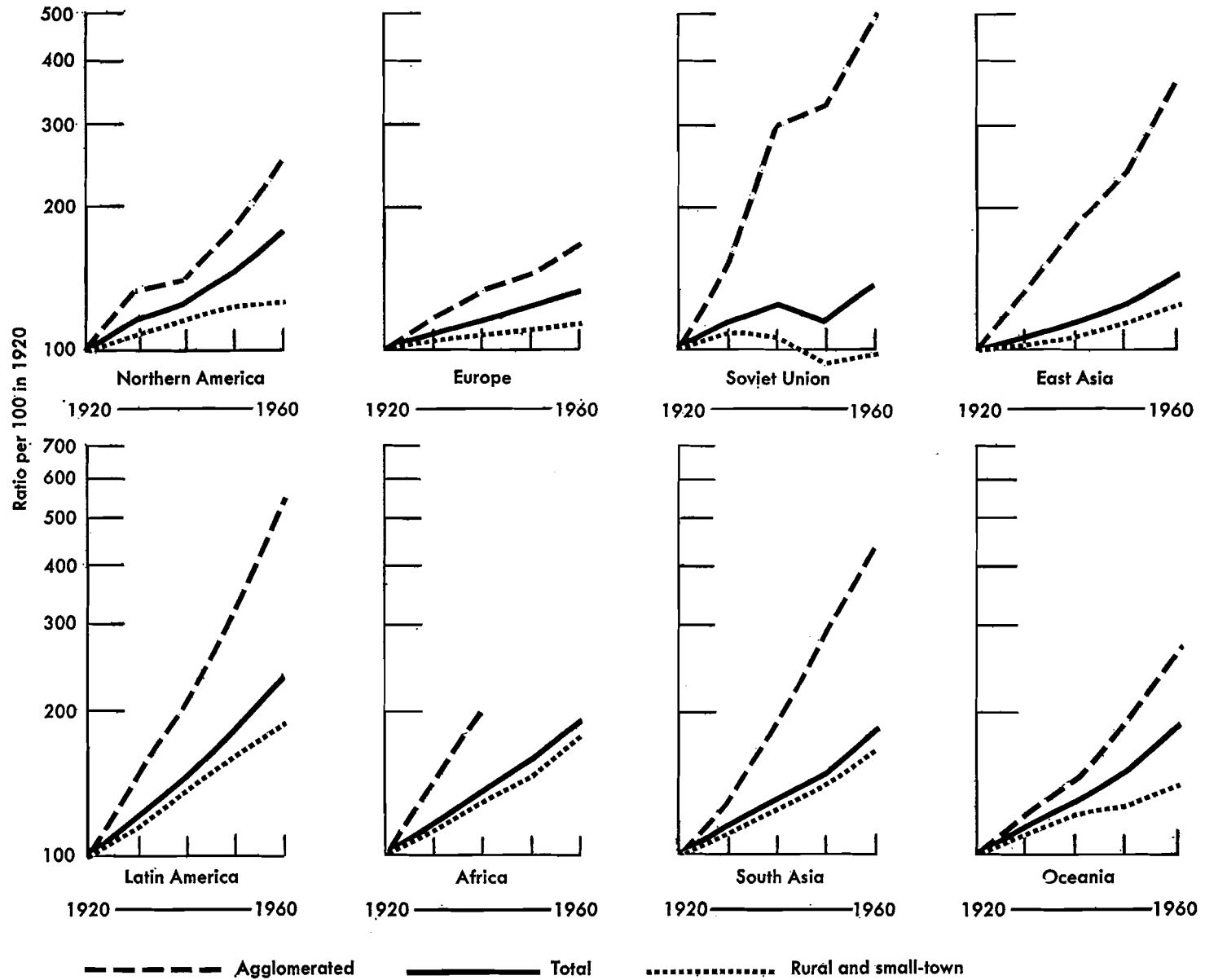
growth rates in successive decades is illustrated in figure IV.

The world's population has been growing at average annual rates near 1 per cent in the decades from 1920 to 1950, whereas in the 1950s the average rate soared to 1.75 per cent. In more developed regions the annual rate diminished from 1.2 per cent in the 1920s to 0.8 in the 1930s and 0.4 in the war-torn 1940s, to rise again to 1.3 per cent per year in the 1950s. In the less developed regions, the annual growth rate was 1.0 per cent in the 1920s and 1.2 per cent both in the 1930s and 1940s, attaining 2.0 per cent on the average in the 1950s.

The agglomerated population (localities of 20,000 or more inhabitants) grew in the successive decades at annual rates of 2.4, 2.5, 2.1 and 3.6 per cent in the world as a whole. The rates were 2.3, 2.1, 1.2 and 2.7 per cent in the more developed regions; here the economic depression of the 1930s caused some slowdown and the effects of war-time destruction and dislocation in the 1940s have been very conspicuous. In the less developed regions, by contrast, there seems to have been a continuous acceleration of urban growth, as the agglomerated population increased at the estimated annual rates of 2.9, 3.4, 4.1 and 5.1 per cent per year in the four successive decades. The latter rate is nearly twice as high as that in the more developed regions.

Urban growth rates varied considerably among major areas and in the course of time. In the 1920s and 1930s agglomerated population grew fastest in the Soviet Union, and in the 1940s and 1950s it grew fastest in Latin America and Africa.

The earlier fast growth in the Soviet Union can be explained first by the consequences of war and civil war which had temporarily depleted the population residing in cities in 1920, and secondly by the intensive programmes of industrialization and farm collectivization, especially in the first five-year plan, which greatly speeded up the migration of people from the villages to the cities. The estimated average growth of 7 per cent per year in the 1930s exceeds all other estimates shown in table 11. In the 1940s, war again caused much destruction of cities in a large part of the country, hence the agglomerated population of the Soviet Union was not much larger in 1950 than it had been ten years previously. Post-war reconstruction and other developments again resulted in a high rate of urban growth in the 1950s, namely 4.5 per cent.

In Northern America, to a less extent also in Europe and Oceania, the economic depression of the 1930s caused a marked slackening in the growth of urban centres. In the 1940s, urban populations of Northern America and Oceania again grew at rates near those of the 1920s, but this was not the case in Europe where the war brought about much destruction and dislocation. In the 1950s, Europe's cities and big towns regained the average rate of growth noted in the 1920s, whereas in Northern America and Oceania their growth was further accelerated.

The 1940s brought about a slowdown in the estimated rates of urbanization in East Asia, reflecting in particular the destruction and partial abandonment of Japanese cities during 1944-1945. In mainland China, the ravages of war had extended over a longer period and numerous cities have suffered extensive damage, but the scant statistics provide little insight on the effects on urban population. With reconstruction and intensified new developments in both mainland China and Japan, agglomerated population in East Asia is estimated to have grown at the high rate of 4.6 per cent during the 1950s. In South Asia, by contrast, the highest rate of growth in agglomerated population, namely, 4.3 per cent per year, was attained in the 1940s, and that rate was not surpassed in the 1950s. In that instance, it is considered likely that a large portion of the hordes of refugees who moved between India and Pakistan after the events of 1948 accumulated in some of the major cities. Thus, the major area with the largest urban increment in the 1920s was Europe; in the 1930s it was the Soviet Union, in the 1940s South Asia and in the 1950s East Asia (see table 10).

In Latin America and Africa, cities and big towns increased at average annual rates near 3.5 per cent in the 1920s and 1930s, near 4.5 per cent in the 1940s and near 5.5 per cent in the 1950s, these being the highest rates among major areas in the recent decade. In 1950-1960, the absolute increments of the agglomerated population of Latin America nearly equalled those in Europe, Northern America and the Soviet Union (see also table 10).

The world's rural and small-town population grew at a slackening rate in the three decades up to 1950: 0.8 per cent per year in the 1920s, 0.7 in the 1930s and 0.6 in the 1940s. In the 1950s, however, the overall momentum of population growth was such that despite accelerated rates and rising levels of urbanization the rate of growth in rural and small-town population doubled, to 1.2 per cent per year.

In the more developed regions, rural and small-town population still grew at an average rate of 0.7 per cent in the 1920s, but has grown negligibly since then. In the less developed regions, the rate was 1.0 per cent per year, or almost as much, in the decades up to 1950, and it rose to 1.5 per cent in 1950-1960. The highest rate of growth in rural and small-town population (1.8 per cent per year) is estimated for South Asia in the period of 1950-1960, and this is closely followed by rates nearly as high in Africa and Latin America. In those three areas, rural and small-town population increased as fast in the 1950s as did the population of cities and big towns in Europe. Among all major areas, Latin America stands out with its nearly constant rate of rural population growth throughout the four decades. This was possible despite accelerated growth in total population because urban population has come to comprise a substantial proportion of the total and, growing very fast, has continued to absorb the entire acceleration in over-all population growth.

F. Levels of urbanization, 1920-1960 (agglomerated population only)

Current (1960) levels of urbanization in the various major areas and component regions of the world are illustrated in map 1, the regions being those defined in annex I. For the period from 1920 to 1960, for major world areas, the percentages of total population in localities

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Map 1. Urbanization levels in major areas and regions of the world (percentage of total population in cities of 20,000 or more inhabitants in 1960)

30

150° 120° 90° 60° 30° 0° 30° 60° 90° 120° 150° 180°

NORTHERN AMERICA

Northern
Europe

EUROPE

Western Europe
Eastern Europe

Southern Europe

SOVIET UNION

EAST ASIA

Japan

Middle America
(Mainland)

Caribbean

Northern Africa

South West Asia

Middle South
Asia

Mainland Region

Other
East Asia

SOUTH ASIA

LATIN

Tropical

Africa

AFRICA

South-
East Asia

Other Oceania

URBANIZATION LEVELS
IN MAJOR AREAS AND REGIONS

Tropical
South America

(PER CENT OF TOTAL POPULATION IN CITIES
OF 20,000 OR MORE INHABITANTS IN 1960)

AMERICA

OCEANIA

More than 55 per cent urbanized

Southern Africa

40-55 per cent urbanized

Temperate
South America

Australia and

25-40 per cent urbanized

New Zealand

10-25 per cent urbanized

0   1000   2000   3000   4000
MILES

Less than 10 per cent urbanized

0   1000 2000 3000 4000
KILOMETRES

The boundaries shown on this map do not imply official
endorsement or acceptance by the United Nations

60°

30°

0°

30°

60°

150° 120° 90° 60° 30° 0° 30° 60° 90° 120° 150° 180°

Table 12. Percentages of total population in localities with 20,000 or more inhabitants in the world and major areas, 1920-1960

Major area	1920	1930	1940	1950	1960
World total	14	16	19	21	25
More developed major areas	30	33	37	40	46
Europe	35	37	40	41	44
Northern America	41	46	46	51	58
Soviet Union	10	13	24	28	36
Oceania	37	38	41	46	53
Less developed major areas	7	8	10	13	17
East Asia	7	9	12	14	19
South Asia	6	7	8	11	14
Latin America	14	17	20	25	33
Africa	5	6	7	10	13
More developed regions[a]	29	33	37	40	46
Less developed regions[b]	6	7	9	11	15

[a] Europe, Northern America, Soviet Union, Japan, Temperate South America and Australia and New Zealand.

[b] East Asia without Japan, South Asia, Latin America without Temperate South America, Africa and Oceania without Australia and New Zealand.

greater than 20,000 are shown in table 12. In these terms, 14 per cent of the world's population was urbanized in 1920, 16 per cent in 1930, 19 per cent in 1940, 21 per cent in 1950 and 25 per cent in 1960.[10] The accelerated rise in urbanization level during the decade 1950-1960 is the net result of a greater acceleration in the growth of cities and big towns than in that of small towns and rural places.

At all five dates, Northern America was more urbanized than was Europe, while in Oceania (which includes less developed countries in addition to Australia and New Zealand) the level was intermediate between those two areas. Likewise, at all five dates East Asia was more urbanized and Africa less urbanized than South Asia; the rapid rise of urbanization level in East Asia, however, is due in part to the inclusion of Japan.

The Soviet Union and Latin America are the two major areas where urbanization advanced most conspicuously, from levels in 1920 which would now appear very low to levels in 1960 which, forty years previously, would have ranked among the highest. Especially rapid was the rise in the urbanization level of the Soviet Union during the 1930s, when it gained a lead over the previously higher urbanization level of Latin America (small towns not included). Percentages of total population in localities greater than 20,000 inhabitants in individual countries are shown in annex IV, table 44.

G. SIZE COMPOSITION OF THE AGGLOMERATED POPULATION

The hazards of estimation become severe when comparisons are made in finer detail. The reader is reminded that, owing to the variety of available statistics and types of administrative units, the sizes of agglomerations could not always be delimited by comparable standards.

Whereas the composition of the urban population by units of varied size is an important topic, its present world-wide review can only be tentative because of the limitations inherent in the available measurements.

The estimates of population in agglomerations above various successive size limits is discussed further in the context of chapter III. When those are subtracted from each other, one obtains the estimates of population in agglomerations within each of several size groups shown in table 13.

As estimated for 1960, the world's big towns (20,000-99,999 inhabitants) had a population of 224 million, smaller cities (100,000-499,999) had 184 million, bigger cities had 211 million and very big cities had 169 million. At all dates, the population of smaller cities was estimated to be somewhat less than that of big towns or that of bigger cities, though the size limits are marked off at equal multiples of each other (20,000, 100,000, 500,000 and 2,500,000).[11] To some extent, this may have resulted from shortcomings of estimation. Numerous big towns, for instance, if properly surveyed in terms of contiguous areas of dense settlement, may actually have been larger than the published census statistics make them appear, including some whose combined agglomerations might have exceeded 100,000 inhabitants. Research in this matter would have been excessively time-consuming, and it could not be undertaken for the present purpose. On the other hand, it is quite possible that the dynamics of urban growth tend to produce, in the world as a whole, a relative depletion in the population of cities of 100,000-499,999 inhabitants. This would be the case, for instance, if cities in this size group frequently grew with special rapidity, with the result that many of them passed rather soon to the next higher size group. But the uncertainties

[10] Urbanization levels which might have been in conformity with national definitions, i.e., including the "small towns", were of course higher. Those are discussed in chapter III.

[11] According to a theoretical model, where the size of each city is in inverse proportion with its order of size, nearly equal population totals are obtained within size groups when the successive group limits are equal multiples of one another.

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Table 13. Population of agglomerations within selected size groups in the world and major areas,
1920, 1940 and 1960

(Millions)

Major area	Population of agglomerations with			
	20,000-99,999 inhabitants	100,000-499,999 inhabitants	500,000-2,499,999 inhabitants	2,500,000 inhabitants and over
1920				
World total	96.6	63.8	71.1	35.5
More developed major areas . . .	55.9	41.9	50.8	31.3
Europe	38.9	22.3	31.8	19.9
Northern America	8.5	12.4	15.6	11.4
Soviet Union	8.0	5.3	1.7	...
Oceania	0.5	0.9	1.7	...
Less developed major areas	40.7	21.3	20.3	4.2
East Asia	18.6	7.6	9.4	4.2
South Asia	13.9	8.4	4.6	...
Latin America	4.4	3.1	5.4	...
Africa	3.8	2.2	0.9	...
More developed regions	60.1	44.7	57.4	35.5
Less developed regions	36.5	18.5	13.7	...
1940				
World total	142.7	107.7	106.3	74.8
More developed major areas . . .	78.1	64.6	73.1	52.1
Europe	49.9	31.5	45.6	22.8
Northern America	10.7	16.9	18.3	20.7
Soviet Union	17.0	14.6	6.8	8.6
Oceania	0.5	1.6	2.4	...
Less developed major areas	64.6	43.1	33.2	22.7
East Asia	27.3	18.6	12.0	15.8
South Asia	22.9	14.3	10.0	3.4
Latin America	8.2	5.3	8.3	3.5
Africa	6.4	4.7	2.9	...
More developed regions	86.2	72.0	78.1	67.6
Less developed regions	56.5	35.7	28.2	7.2
1960				
World total	224.0	183.9	210.7	169.2[a][b]
More developed major areas . . .	106.3	96.9	117.7	82.5[a]
Europe	62.7	43.8	59.3	22.1
Northern America	15.4	27.4	35.9	50.8[a]
Soviet Union	27.0	24.1	17.3	9.6
Oceania	1.5	1.6	5.2	...
Less developed major areas	117.7	87.0	93.0	86.7[b]
East Asia	40.4	28.9	42.7	48.6[b]
South Asia	43.0	32.1	29.8	12.6
Latin America	21.3	13.2	14.5	20.7
Africa	12.9	12.8	10.8	3.3
More developed regions	120.5	107.3	126.3	123.0[a][b]
Less developed regions	103.5	76.6	84.4	46.2

[a] Including the super-conurbation of New York.
[b] Including the super-conurbation of Tokyo.

of estimation are too great to warrant such a conclusion.

As can be seen from the comparison of estimates for 1920 and 1960, successive size groups of agglomerations accumulated population with successively greater rapidity. Big towns of 1920 had 97 million inhabitants and those of 1960 had 224 million, which is 2.3 times as many; the group of smaller cities grew from 64 million to 184 million, that is, to 2.9 times the earlier total; bigger cities, with 71 million in 1920 and 211 million in 1960, have grown threefold; and multimillion cities, containing 35 million in 1920 and 169 million in 1960, have grown nearly fivefold.[12]

In more developed regions it can be said that the size composition of the agglomerated population nearly satisfied the "rank-size rule" in 1960, almost equal numbers of inhabitants being estimated in the successive

[12] Without the super-conurbations of New York and Tokyo, in 1960 population in this size group had grown from 35 million to 142 million, which is fourfold.
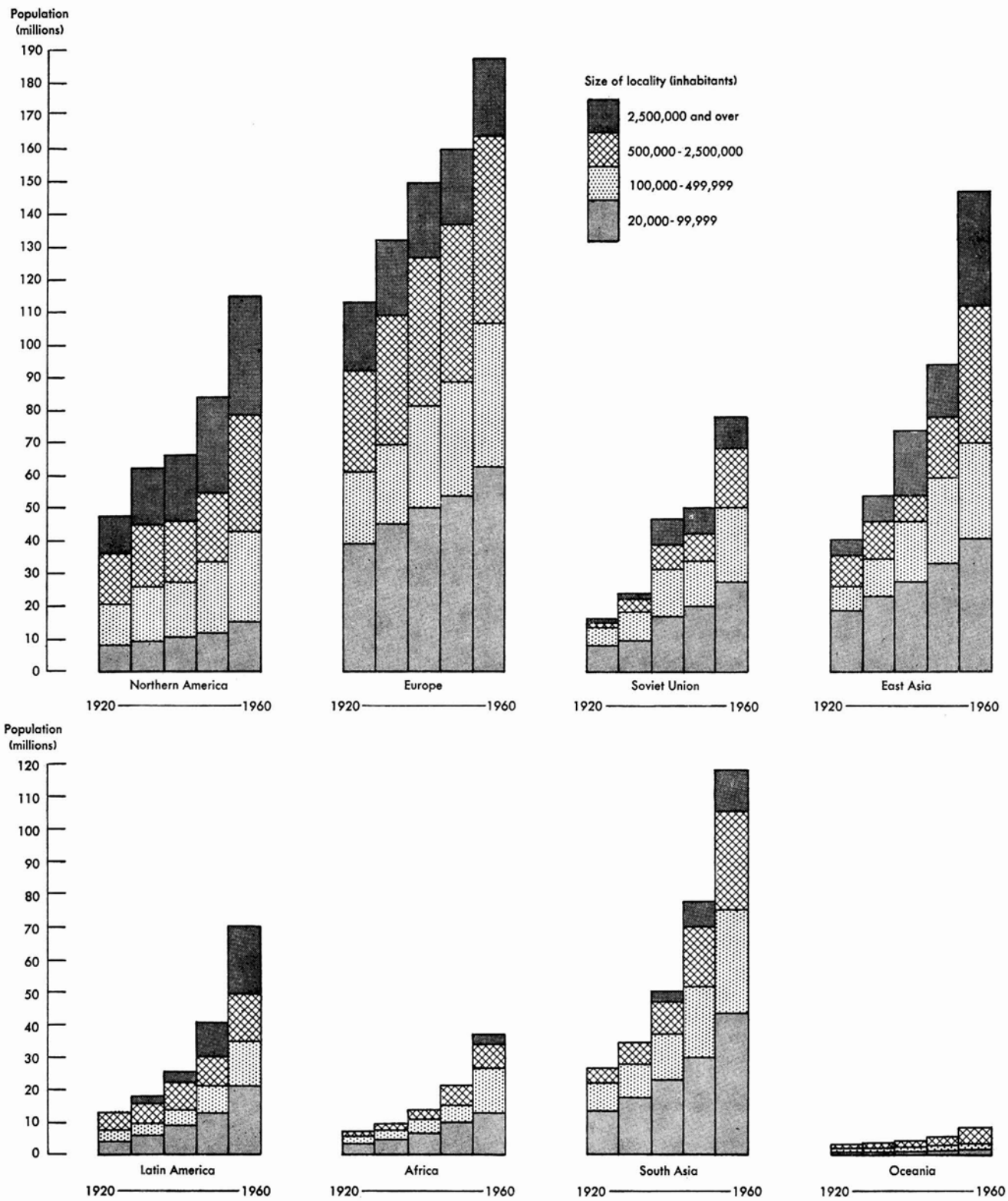
32

Figure V. Agglomerated population by size of locality, 1920-1960

size classes: 120 million in big towns, 107 million in smaller cities,[13] 126 million in bigger cities and 123 million in very big cities. This was not so much the case at earlier dates, e.g., in 1920 when the successive totals amounted to 60 million, 45 million, 57 million and 35 million. Nor is it the case of agglomerations in less developed regions where the numbers of population in successive size groups are still decreasing, though no longer as steeply

as they did at earlier dates. Profiles of the changing distributions of population among the various size of locality categories in the eight major areas are shown in figure V.

The comparative size compositions of urban populations in different areas of the world are further reviewed in percentage terms in table 14. These figures are even more tentative because they are related to the crude working estimates of "urban" population as it might have been variously defined.[14] In particular, the percent-

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[13] As already discussed, insufficient research may have resulted in a relative under-estimation of the population of agglomerations with 100,000-499,999 inhabitants.

[14] See chapter III, section C.

Table 14. Percentage of urban population in agglomerations within selected size groups in the world and major areas, 1920, 1940 and 1960

Major area	Small towns[a]	Agglomerations with			
		20,000-99,999 inhabitants	100,000-499,999 inhabitants	500,000-2,499,999 inhabitants	2,500,000 inhabitants and over
1920					
World total	(25)	27	18	20	10
More developed major areas	(26)	23	17	21	13
Europe	(25)	26	15	21	13
Northern America	(20)	14	21	26	19
Soviet Union	(37)	33	23	7	...
Oceania	(28)	12	21	39	...
Less developed major areas	(28)	34	18	17	3
East Asia	(21)	37	15	19	8
South Asia	(32)	35	21	12	...
Latin America	(35)	22	16	27	...
Africa	(31)	38	22	9	...
More developed regions	(24)	23	17	22	14
Less developed regions	(36)	36	19	14	...
1940					
World total	(24)	25	19	19	13
More developed major areas	(24)	22	18	21	15
Europe	(25)	25	16	23	11
Northern America	(21)	13	20	22	24
Soviet Union	(23)	28	24	11	14
Oceania	(24)	9	26	41	...
Less developed major areas	(26)	29	20	15	10
East Asia	(13)	32	22	14	19
South Asia	(32)	31	19	13	5
Latin America	(36)	20	14	21	9
Africa	(30)	32	23	15	...
More developed regions	(21)	22	19	20	18
Less developed regions	(31)	31	19	15	4
1960					
World total	(20)	23	19	21	17
More developed major areas	(22)	21	19	23	16
Europe	(23)	26	18	24	9
Northern America	(7)	11	20	26	36
Soviet Union	(26)	26	23	16	9
Oceania	(16)	15	16	53	...
Less developed major areas	(21)	24	18	19	18
East Asia	(11)	22	16	24	27
South Asia	(24)	28	21	19	8
Latin America	(33)	20	13	14	20
Africa	(19)	26	26	22	7
More developed regions	(18)	21	18	22	21
Less developed regions	(24)	25	19	21	11

[a] "Urban" localities with fewer than 20,000 inhabitants; estimates highly conjectural.

ages of "urban" population imputed to "small towns" should be viewed with the greatest caution.

The size composition of the urban population in more developed regions as estimated for 1960 can be regarded as roughly conforming to the "rank-size rule"; the percentages in the five successive size classes were 18, 21, 18, 22 and 21, fluctuating somewhat but showing no clear trend. In the less developed regions, the 1960 size composition of the urban population was somewhat "regressive", with successive percentages of 24, 25, 19, 21 and 11. However, this was hardly more "regressive" than had been the size composition of the urban population of the more developed regions in 1920, when the successive percentages were 24, 23, 17, 22 and 14. The urban population of the less developed regions, however, had a markedly "regressive" composition at that time, with successive percentages of 36, 36, 19, 14 and zero.

Closer study of changes in the size composition of urban populations would reveal many points of interest. Only rough indications are provided by the summary figures shown in tables 13 and 14, as these figures are often based on uncertain estimates and the data are grouped in very broad size and area categories. On the whole, it is suggested that with a declining share of urban populations in smaller places and a rising share in big and very big cities, the size distributions are becoming less "regressive" or increasingly "progressive", but the finding is far from uniform. Considerable growth has occurred in urban populations of some of the smaller size classes in Europe, the Soviet Union and Latin America, and in the middle size class in South Asia. The decreasing share of smaller-size urban settlements in Northern America, Oceania and East Asia may suggest a tendency towards "hypertrophy" in relation to a narrowing base of more widely distributed minor urban centres. In Latin America, where growth in the biggest cities is *disproportionately rapid while small and middle-sized towns also grow substantially*, a relative gap appears to develop in the category of cities of the second order of magnitude.

"Progressive" size compositions, i.e., those where the successive percentages tend to increase, can be noted in the urban populations of Northern America, Oceania and, at the most recent date, East Asia, though the detailed estimates for the latter area are particularly uncertain. In the Soviet Union, South Asia and Africa, the size compositions have remained "regressive". It is difficult to judge the estimates for Europe because of uncertainties and varied standards in the delimitations of large agglomerations; the relative decline in Europe's multimillion cities includes an actual decline in the city of Berlin and an apparent slight decline in the "conurbation" of Greater London, as delimited;[15] on the

other hand, five European agglomerations (Manchester, Birmingham, Madrid, Hamburg and Rome) were estimated larger than 2 million each in 1960, and some of them may soon surpass 2,500,000. Sydney (Australia), likewise, soon after 1960 may have become Oceania's first multimillion city. Finally, the peculiar size composition of Latin America's urban population should be noted, with a relatively small proportion in medium-sized cities while the proportions in both small towns and very big cities are rather large.

H. The population of big cities and multimillion cities

Estimates for individual cities, whenever these amounted to at least 500,000 inhabitants, have been assembled for dates from 1920 to 1960 (see annex V). Figure VI illustrates the present size and past growth of the world's twenty-five largest cities of 1960. So far as possible, these estimates refer to agglomerations, but it must be emphasized that these have been delimited by varied standards and cannot be considered as strictly comparable.

Table 15 shows the number of big cities (500,000 and over) and multimillion cities (2,500,000 and over) estimated in the major areas of the world for each of these dates. The observations indicate very clearly Europe's declining share in the world's big cities, the rapidly rising share of big cities situated in the less developed regions and the particularly large share of more developed regions other than Europe in multimillion cities.

Big cities in the world numbered eighty-three in 1920 and 232 in 1960. Of those in 1920, forty were situated in Europe, twenty-nine in other more developed regions, and only fourteen in less developed regions. In 1960, Europe had fifty-six big cities, other more developed regions had eighty-three and the less developed regions had ninety-five.

The world's multimillion cities numbered seven in 1920 and twenty-six in 1960. Of those in 1920, four were in Europe[16] and three in other more developed regions.[17] Those of 1960 comprised the same four in Europe, eleven in other more developed regions and eleven in less developed regions. It is worth noting that almost throughout the nineteenth century the world's two biggest cities were in Europe, namely, London and Paris, whereas the

	1938	1951	1961
County of London	4,063	3,358	3,180
Inner urban ring	1,911	1,779	1,620
TOTAL, Inner London	5,974	5,137	4,800
Suburban ring	2,366	2,684	2,698
TOTAL, built-up area	8,340	7,821	7,498
Green belt ring	977	1,322	1,661
Outer county ring	833	1,008	1,400
TOTAL, Greater London planning region	10,150	10,151	10,559
Surrounding ring	1,263	1,502	1,907
TOTAL, London metropolitan region	11,413	11,653	12,466

SOURCE: J. B. Cullingworth, *Housing Needs and Planning Policy* (London, 1960); Donald L. Foley, *Controlling London's Growth* (Berkeley, California, 1963); London County Council, *London Traffic Survey*, vol. I (London, July 1964).

[16] London, Paris, Berlin and the Ruhrgebiet (conurbation in western Germany).

[17] New York, Tokyo and Chicago.

[15] Defined as the "Greater London conurbation", i.e., the County of London and its "conurban ring", the agglomeration has grown from 7,488,000 inhabitants in 1921 to 8,747,000 in 1939 but since then has declined to 8,348,000 in 1951 and 8,183,000 in 1961. More recently, the London region has been defined in terms of the County of London and five successive concentric rings to be included in wider areas, as variously defined, depending on survey or planning purposes. Population changes since 1938 in these concentric areas have been recorded as follows (thousands):

Figure VI. Population of the world's twenty-five largest cities, 1920-1960
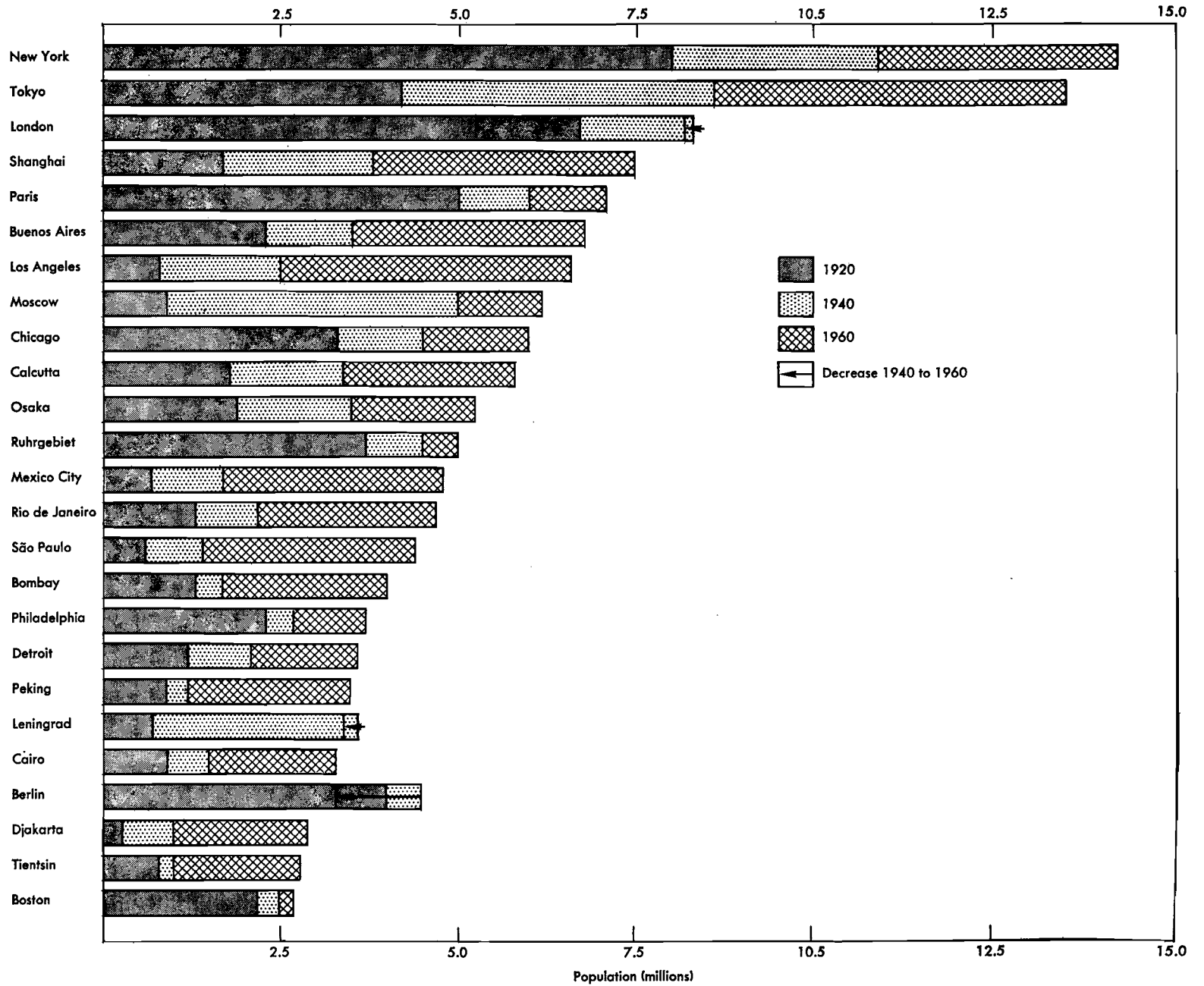
Population (millions)

1920
1940
1960
Decrease 1940 to 1960

New York
Tokyo
London
Shanghai
Paris
Buenos Aires
Los Angeles
Moscow
Chicago
Calcutta
Osaka
Ruhrgebiet
Mexico City
Rio de Janeiro
São Paulo
Bombay
Philadelphia
Detroit
Peking
Leningrad
Cairo
Berlin
Djakarta
Tientsin
Boston

Major area	1920	1930	1940	1950	1960
Big cities (500,000 inhabitants and over)					
World total	83	102	126	158	234
More developed major areas	62	73	85	97	126
Europe	40	47	50	52	56
Northern America	18	20	21	29	41
Soviet Union	2	4	12	14	25
Oceania	2	2	2	2	4
Less developed major areas	21	29	41	61	108
East Asia	11	13	16	22	50
South Asia	4	7	14	22	29
Latin America	5	7	8	11	19
Africa	1	2	3	6	10
More developed regions	69	81	94	105	139
Europe	40	47	50	52	56
Other[a]	29	34	44	53	83
Less developed regions	14	21	32	53	95
Multimillion cities (2,500,000 inhabitants and over)					
World total	7	11	15	20	26
More developed major areas	6	8	10	12	12
Europe	4	4	4	4	4
Northern America	2	3	4	6	6
Soviet Union	...	1	2	2	2
Oceania	...	...	...	...	...
Less developed major areas	1	3	5	8	14
East Asia	1	2	3	3	6
South Asia	...	...	1	2	3
Latin America	...	1	1	3	4
Africa	...	...	...	...	1
More developed regions	7	11	13	15	15
Europe	4	4	4	4	4
Other[a]	3	7	9	11	11
Less developed regions	...	...	2	5	11

[a] Northern America, Soviet Union, Japan, Temperate South America, Australia and New Zealand.

two largest conurbations of the present time, New York and Tokyo, are not in Europe.

The estimated population of big cities and multimillion cities in major areas is shown in table 16. Again it is of interest to note the changes of distribution between Europe, other more developed regions and the less developed regions. In 1920, Europe had 49 per cent of the world's big-city population and 56 per cent of its multimillion city population; in 1960, Europe had only 23 per cent of the big-city and only 17 per cent of the multimillion city population. Other more developed regions had 38 per cent of the world's big-city inhabitants in 1920 and 40 per cent in 1960; they had 44 per cent of the world's multimillion city inhabitants in 1920 and 52 per cent in 1960. The less developed regions, with only 13 per cent of the world's big-city population in 1920, had 37 per cent in 1960; and, whereas they had no multimillion cities in 1920, they contained 31 per cent of the world's multimillion city population in 1960.

The foregoing comparisons are for groups of cities which happen to fall above, or within, specified size limits at the particular dates. Those are not groups of identical cities since, with growth, additional cities enter the specified categories and some grow beyond, while sometimes a declining city again falls below a specified size. Groups of identical cities have grown less rapidly on the whole than have the variable groups of cities falling, at any given time, within each set of fixed size limits.

In an attempt to trace the comparative growth of identical cities, the available estimates have been added up with the results shown in table 17. For reasons which will become obvious in chapter IV, a distinction is made only for the areas of Europe, other more developed regions and less developed regions.

The world's big-city population has grown from 107 million in 1920 to 354 million in 1960, an increase of 247 million.[18] Of this increase, that in cities which already had more than a million inhabitants in 1920 was 53 million, that in cities which already had between one half and one million in 1920 was 60 million, and the big cities which had had fewer than half a million inhabitants in

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[18] i.e., with the inclusion of Dresden, Sheffield and Wroclaw, three cities which have lately fallen below the size limit of 500,000.

(Millions)

Major area	1920	1930	1940	1950	1960
Big cities (500,000 inhabitants and over					
World total	106.6	142.3	181.1	227.4	352.2
More developed major areas .	82.1	106.4	125.2	140.7	186.0
Europe	51.7	62.4	68.4	70.5	81.4
Northern America	27.0	36.1	39.0	51.0	72.5
Soviet Union	1.7	5.8	15.4	16.2	26.9
Oceania	1.7	2.1	2.4	3.0	5.2
Less developed major areas . .	24.5	35.9	55.9	86.7	166.2
East Asia	13.6	19.5	27.8	35.0	77.8
South Asia	4.6	6.3	13.4	26.1	42.4
Latin America	5.4	8.4	11.8	19.6	35.2
Africa	0.9	1.7	2.9	6.0	10.8
More developed regions . . .	92.9	121.7	145.7	162.0	221.6
Europe	51.7	62.4	68.4	70.5	81.4
Other[a]	41.2	.59.3	77.3	91.5	140.2
Less developed regions	13.7	20.6	35.4	65.4	130.6
Multimillion cities (2,500,000 inhabitants and over)					
World total	35.5	53.8	74.8	95.4	141.5
More developed major areas .	31.3	42.3	52.1	59.9	69.8
Europe	19.9	22.4	22.8	22.1	23.6
Northern America	11.4	17.3	20.7	29.5	36.6
Soviet Union	...	2.6	8.6	8.3	9.6
Oceania	...	...	...	...	...
Less developed major areas . .	4.2	11.5	22.7	35.5	71.7
East Asia	4.2	8.7	15.8	16.3	35.1
South Asia	...	...	3.4	7.2	12.6
Latin America	...	2.8	3.5	12.0	20.7
Africa	...	...	...	...	3.3
More developed regions . . .	35.5	53.8	67.6	76.4	97.6
Europe	19.9	22.4	22.8	22.1	23.6
Other[a]	15.6	31.4	44.8	54.3	74.0
Less developed regions	...	...	7.2	19.0	43.9

[a] Northern America, Soviet Union, Japan, Temperate South America, Australia and New Zealand.

1920 had grown to a total of 134 million. Of that last-mentioned figure 59 million represents the growth of those new big cities subsequent to their attainment of a size of 500,000.

In Europe, the 31 million increase in big-city population owed 6 million to the growth of million cities of 1920, 12 million to the growth of half-million cities of 1920 and 13 million to the addition and growth of new big cities.

In other more developed regions, where the increase in big-city population totalled 99 million, 31 million is to be attributed to the old million cities, 28 million to the old half-million cities and 40 million to the addition and growth of new big cities.

In less developed regions, old million cities account for 16 million, old half-million cities for 20 million and new big cities for more than 80 million of the combined 117 million increase in big-city population.

It is noted that, in relative terms, the old half-million cities have grown faster than the old million cities. The forty year's growth added 18 per cent to the population of old million cities and 67 per cent to the population of

old half-million cities in Europe. In other more developed regions, the population of the old million cities doubled while that of the old half-million cities trebled. In the less developed regions, the growth has been threefold in the old million cities and fourfold in the old half-million cities.[19]

There are many and diverse circumstances affecting the growth of cities in different regions. It cannot be concluded, therefore, that an element of "saturation" eventually tends to slow down the growth of cities once they are very big. Where total population growth has slowed down and the level of urbanization is high, as in much of Europe for instance, the reservoir from which additional migrants to big cities might be recruited is also correspondingly reduced. The results of the comparison may, however, be heavily affected by the methods of measurement. Very big agglomerations, such as

[19] The possibility that cities in the 100,000-499,999 size group may have grown even faster than those of 500,000 inhabitants and over appears somewhat inconclusively in the observations of the preceding section.

Table 17. Population of big cities (500,000 inhabitants or over) in the world and three selected regions, 1920-1960, according to their sizes in 1920

(Millions)

Selected region	1920	1930	1940	1960	1960	Increase, 1920–1960
All big cities (500,000 inhabitants or over at any given date)						
World total	106.6	143.3	181.1	228.2[a]	353.6[b]	247.0[b]
Europe	51.7	62.4	68.4	71.3[a]	82.8[b]	31.1[b]
Other more developed regions	41.2	60.3	77.3	101.5	140.2	99.0
Less developed regions	13.7	20.6	35.4	55.4	130.6	116.9
Cities of one million or more inhabitants in 1920						
World total	67.7	80.3	90.2	97.5	121.0	53.3
Europe[c]	33.9	37.6	38.6	37.9	40.1	6.2
Other more developed regions[d]	26.6	34.8	39.8	43.4	57.4	30.8
Less developed regions[e]	7.2	7.9	11.8	16.2	23.5	16.3
Cities of 500,000-999,999 inhabitants in 1920						
World total	38.9	50.9	62.0	72.8[a]	99.1[b]	60.2[b]
Europe[f]	17.8	20.5	22.9	24.0[a]	29.7[b]	11.9[b]
Other more developed regions[g]	14.6	21.8	28.1	32.2	42.6	28.0
Less developed regions[h]	6.5	8.6	11.0	16.2	26.8	20.3
Entry of "new big cities" (cumulative)[i]						
World total	...	9.5	21.5	37.5	74.5	74.5
Europe[j]	...	3.5	5.0	6.0	8.0	8.0
Other more developed regions[k]	...	2.5	7.5	12.0	26.5	26.5
Less developed regions[l]	...	3.5	9.0	19.5	40.0	40.0
Growth of "new big cities" entered[m]						
World total	...	2.6	7.4	22.4	59.0	59.0
Europe[j]	...	0.8	1.9	3.0	5.0	5.0
Other more developed regions[k]	...	1.2	1.9	3.9	13.7	13.7
Less developed regions[l]	...	0.6	3.6	13.5	40.3	40.3

[a] Including Dresden and Wroclaw, though their populations had fallen below 500,000 in 1950.

[b] Including Dresden, Wroclaw and Sheffield, though their populations had fallen below 500,000 in 1960.

[c] London, Paris, Berlin, the Ruhrgebiet, Manchester, Vienna, Birmingham, Glasgow, Hamburg, Leeds, Budapest, Liverpool and Brussels.

[d] New York, Tokyo, Chicago, Philadelphia, Boston, Buenos Aires, Osaka, Pittsburgh and Detroit.

[e] Calcutta, Shanghai, Rio de Janeiro, Bombay and Istanbul.

[f] Twenty-seven cities.

[g] Twenty cities.

[h] Peking, Cairo, Tientsin, Canton, Wuhan, Mexico City, Sao Paulo, Hong Kong and Madras.

[i] Arithmetic result of attainment of 500,000 by each of the cities having attained such size since 1920.

[j] Seven cities by 1930, 10 by 1940, 12 by 1950 and 16 by 1960.

[k] Five cities by 1930, 15 by 1940, 24 by 1950 and 53 by 1960.

[l] Seven cities by 1930, 18 by 1940, 39 by 1950 and 80 by 1960.

[m] Cumulative result of growth beyond 500,000 of cities having attained such size since 1920.

London, may seem to grow at a slackening rate, or even to decrease somewhat, yet the radius of their urban influence continues to widen, inducing thereby an accelerated urbanization in concentric zones situated at increasing distances from the central agglomeration.

Despite the seemingly inexorable momentum of city growth, declines in the population of some cities have also been noted. Six big cities, all of them in Europe, namely, Berlin, Vienna, Leipzig, Dresden, Wroclaw and Sheffield, had fewer inhabitants in 1960 than they had had in 1920. Other cities have declined temporarily then again resumed their growth, e.g., Istanbul in the 1920s[20] and cities suffering war-time destruction in the 1940s in eastern Europe, Soviet Union, Japan and probably also in mainland China. Several big cities of the United Kingdom recently showed a slight decreasing trend in

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[20] Around that time a large number of Greeks, many of them urban, were transferred from Turkey to Greece.

numbers of inhabitants, but in their instance the method of measurement may be partly deceptive. The temporary depletion in 1920 of several cities in the Soviet Union which had previously been larger has been mentioned elsewhere; subsequently, however, those Soviet cities grew far beyond their previous sizes. Over the forty-year period, the almost continuous decrease in the population of Vienna — which had had more than 2 million inhabitants in 1910 — appears unique, but even there a very small increase can again be noted between 1950 and 1960.

I. SEAPORTS AND INLAND CITIES

Maritime transport has been a major factor in modern times in the spread of commerce, industry and associated urban developments. In the mercantilist and colonial periods, a special stimulus was given to the growth of the principal port cities in western Europe and in areas harbouring transoceanic trade throughout the world.

MAP 2

Map 2. Big cities (500,000 or more inhabitants) and multimillion cities (2,500,000 or more inhabitants) in 1920

● Cities of 500,000 - 2,499,999 inhabitants in 1920

■ Cities of 2,500,000 or more inhabitants in 1920

MAP 3

Map 3. Big cities (500,000 or more inhabitants) and multimillion cities (2,500,000 or more inhabitants) in 1960

Table 18. Population of big cities (500,000 inhabitants and over) which are seaports and of big cities situated inland, in the world and major areas, 1920-1960, and percentage of big-city population in seaports

Major area	1920	1930	1940	1950	1960
Population of seaport cities (millions)					
World total	54.2	73.4	93.7	118.8	167.8
More developed major areas	35.6	46.5	53.7	63.4	79.3
Europe	17.6	21.8	24.3	27.4	31.1
Northern America	15.6	20.0	21.9	28.7	37.3
Soviet Union	0.7[a]	2.6[b]	5.1	4.3	5.7
Oceania	1.7[c]	2.1[c]	2.4[c]	3.0[c]	5.2
Less developed major areas	18.6	26.9	40.1	55.4	88.5
East Asia	10.4	14.9	22.1	24.5	42.6
South Asia	4.6	5.8	9.6	16.6	22.6
Latin America	3.6[d]	5.6	7.6	11.5	17.6
Africa	...	0.6[e]	0.8[e]	2.8	5.7
More developed regions	45.2	60.1	72.1	82.4	109.8
Less developed regions	9.0	13.3	21.6	36.4	58.0
Population of inland cities (millions)					
World total	52.4	69.4	87.4	108.6	184.4
More developed major areas	46.5	60.4	71.5	77.3	106.7
Europe	34.1	40.6	44.1	43.1	50.3
Northern America	11.4	16.1	17.1	22.3	35.2
Soviet Union	1.0[f]	3.2[g]	10.3	11.9	21.2
Oceania	...	...	...	...	...
Less developed major areas	5.9	9.0	15.8	31.3	77.7
East Asia	3.2	4.6	5.7	10.5	35.2
South Asia	...	0.5[h]	3.8	9.5	17.8
Latin America	1.8	2.8	4.2	8.1	17.6
Africa	0.9[i]	1.1[i]	2.1[j]	3.2[j]	5.1
More developed regions	47.7	61.1	74.4	79.6	111.8
Less developed regions	4.7	7.3	13.8	29.0	72.6
Percentage of big-city population in seaports					
World total	51	52	52	52	48
More developed major areas	43	43	43	45	43
Europe	34	35	36	39	38
Northern America	58	55	56	56	51
Soviet Union	43[k,l]	46[k,l]	33	27	21
Oceania	100[k,l]	100[k,l]	100[k,l]	100[k,l]	100[l]
Less developed major areas	76	75	72	64	53
East Asia	76	76	79	70	55
South Asia	100[l]	92[l]	72	64	53
Latin America	67[k]	68	64	59	50
Africa	0[k,l]	35[k,l]	26[k,l]	46[l]	53
More developed regions	49	50	49	51	50
Less developed regions	66	65	61	56	44

[a] Leningrad only.
[b] Leningrad and Baku.
[c] Sydney and Melbourne.
[d] Buenos Aires and Rio de Janeiro.
[e] Alexandria only.
[f] Moscow only.
[g] Moscow and Kiev.
[h] Bangkok only.
[i] Cairo only.
[j] Cairo and Johannesburg.
[k] Fewer than three big seaports.
[l] Fewer than three big inland cities.

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Associated with this has been a disproportionately rapid growth of "primate" cities which came to outrank considerably in size many of the older cities situated further inland in the respective continents and countries. Direct transmarine shipping, without intermediate breaks of cargo, still confers certain advantages to cities situated at the seaboard, and each of the three biggest megalopolitan regions (north-western Europe, the east coast of the United States and a large portion of Japan) is directly adjacent to the oceans. The four largest cities of the world, New York, Tokyo, London and Shanghai are seaports, notwithstanding the enormous urban developments which have occurred also in regions situated further inland.

Table 18 assembles the population estimates for those big cities (500,000 inhabitants or over) which are seaports and those which are not. All cities situated directly at the shores of the sea (also Baku, on the Caspian Sea) were included among seaports, as well as those situated a short distance inland but directly accessible to big ocean-going vessels (Philadelphia, Calcutta and Nanking). Cities accessible to minor vessels only (Canton, Saigon, Bangkok, Rangoon) or situated far inland (Detroit, Montreal) were not included among the seaports.

The estimates indicate that more than one half of the population of the world's big cities was that of seaports up to 1950, whereas in the most recent decade this proportion fell below one half. In the more developed regions, the seaport population remained very nearly one half of the big-city population throughout 1920-1960. In the less developed regions, where two thirds of the big-city population was in seaports in 1920 and 1930, inland cities have grown so much that the proportion in seaports fell to 44 per cent in 1960.

The share of seaports in big-city population in individual major areas had some accidental fluctuations in those instances where big cities were few. Wherever big seaports or inland cities numbered no more than two, the fact is indicated in table 18 by a foot-note. Extreme cases are Oceania, also South Asia in 1920, with no big city situated inland, and Africa, whose only cities of 500,000 or more inhabitants up to 1940 were Alexandria (at the coast) and Cairo and Johannesburg (both inland).

The share of seaports in big-city population is low in the Soviet Union, for obvious geographic reasons, and has fallen further as a result of widely distributed urban developments. Europe also has a comparatively low share of big-city population in seaports, and it is remarkable that in 1920 Europe accounted for two-thirds of the world's population of big cities not directly in contact with the sea. Even in 1960, the inland city population of Europe was still larger than that of any other major area. Nevertheless, there has been a rise in the proportion of European big-city population in seaports, partly because the wartime set-backs have been particularly severe in cities of central and eastern Europe.

In Northern America, East Asia, South Asia and Latin America the proportions of big-city population in seaports have diminished, especially in the most recent decade. This has been partly a result of increases in the number of inland cities which have come to surpass the 500,000 size, while seaports of such size have not grown much more numerous. Such developments would tend to reduce the previously greater "primacy" of the principal bases of transmarine trade were it not for the exceptional sizes recently attained by the world's largest port cities and the new phenomenon of megalopolitanism in areas adjacent to the sea coasts.[21]

The continuing prevalence of seaports among the very big cities is evident when the comparison is confined to multimillion cities (2,500,000 or larger). Of the world's multimillion city population, 55 per cent was that of seaports in 1920, 60 per cent in 1930, 68 per cent in 1940, 69 per cent in 1950 and 67 per cent in 1960. The geographic distributions of big cities and multimillion cities throughout the world in 1920 and 1960 are illustrated in maps 2 and 3 on pages 40 and 41.

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[21] The case of Africa differs. The two largest cities are inland. Numerous coastal cities have for a long time been considerably larger than most inland cities, but only in recent years have some of them begun to approach and surpass the size of 500,000.

Chapter III

ALTERNATIVE ESTIMATES AND TRENDS DERIVED FROM "METROPOLITAN AREA", "URBAN" AND "AGGLOMERATED" POPULATION CONCEPTS, 1920-1960

A. ALTERNATIVE ESTIMATES FOR LARGE URBAN PLACES

The delimitation of "localities" becomes a serious problem in the use of census data relating to some of the bigger cities. Wherever suitable statistics could be found, the aim in the present report was to estimate populations within areas of compact settlement, seeking thereby to attain international comparability in estimated urbanization levels. Actually, this could not be achieved with any precision, as the national statistics are only rarely presented in this exact form. What had to be done in most instances was to select from among available data those believed to approximate more nearly the concept in view, and some of the choices which were made are described in annex III. As estimated, the compact settlement areas are often larger than "urban" areas as defined by administrative contours, but smaller than regions of close economic and social interdependence, sometimes defined as "metropolitan areas".

In another research study, published in 1959, the effort was made to estimate the populations of cities throughout the world in a fashion comparable with the United States census concept of "metropolitan areas", as well as in terms of the municipal units representing at least the central parts of such cities.[1] These estimates were made to conform to precise rules and were very detailed, and they comprised all units of 100,000 or more inhabitants according to information available at the time for previous dates as extrapolated to the date of 1955.

A strict comparison between findings of that earlier study and the present report is not possible. First, in the present report more recent data were also available, on whose basis earlier estimates would have to be revised. Secondly, in the earlier report "metropolitan area" populations could not be estimated in countries where census data had not been published in sufficient geographic detail, notably mainland China, some countries of eastern Europe and many cities in the Soviet Union; in those instances, "city proper" population estimates had been substituted. Finally, no precise rules could be adopted to establish a uniform procedure in the selection of estimates in the present report, as witnessed by the many methodological notes of annex III.

Combined figures for major areas, nevertheless, offer at least an approximate overview of the differences in magnitude of population estimates for some of the bigger cities when these are variously delimited. The differences can be roughly inferred from the figures shown in table 19.

World population of cities (100,000 inhabitants and over) in 1955 may have totalled 519 million when these are conceived as urban-dominated regions, 440 million when they are regarded as agglomerations and 353 million when they are viewed as administrative units. The differences are greater, in relative terms, in the more developed regions (totals of 349 million, 284 million and 207 million) than in the less developed regions (totals of 170 million, 156 million and 146 million), partly because in the former regions urban developments have outgrown the administrative frameworks to a wider extent, and partly also because in many of the less developed countries the differentiated estimates could not be made.

Estimated big-city population (500,000 inhabitants and over) varies within comparatively wider limits, according to alternative concepts. The 1955 world estimates total 341 million in metropolitan areas, 281 million in agglomerations and 198 million in administrative units; totals for the more developed regions are 235 million, 190 million and 116 million; for the less developed regions they are 106 million, 91 million and 82 million.

For multimillion cities the comparative estimates vary even more widely, totalling 141 million for metropolitan areas, 115 million for agglomerations and only 68 million for areas under a municipality comprising 2,500,000 or more inhabitants. The variation is more extreme in the more developed regions, with totals of 103 million, 83 million and 39 million, than in the less developed regions where the alternative estimates add up to 38 million, 32 million and 29 million.

All these figures lack precision and indicate only rough orders of magnitude. It can be seen, nevertheless, that in most areas the estimates of the present report are intermediate between those based on a regional concept and those based on concepts of local government. It is not suggested that estimates of one type only should be used. All these types of population measurements for big cities are needful, depending on the purposes to be served.

Administrative units, such as "cities proper", also serve as the statistical units for the gathering of continuous

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[1] K. Davis, *The World's Metropolitan Areas*, International Urban Research, University of California (Berkeley, California, 1959).

Table 19. Population estimates, 1955, for cities with more than 100,000, 500,000 and 2,500,000 inhabitants, considered, alternatively, as "metropolitan areas", "agglomerations" or "cities proper"

(Millions)

Major area	Metropolitan areas[a] with more than			Agglomerations[b] with more than			Cities proper[a] with more than		
	100,000 inhabitants	500,000 inhabitants	2,500,000 inhabitants	100,000 inhabitants	500,000 inhabitants	2,500,000 inhabitants	100,000 inhabitants	500,000 inhabitants	2,500,000 inhabitants
World total	519	341	141	440	281	115	353	198	68
More developed major areas	302	202	79	245	162	63	175	98	26
Europe	145	98	29	115	76	24	82	46	6
Northern America	104	76	39	85	61	33	49	31	21
Soviet Union	47	24	11	39	21	6	43	21	8
Oceania	6	4	...	6	4	...	1	...	...
Less developed major areas	217	139	62	195	119	52	178	100	42
East Asia	93	62	32	81	52	24	79	49	21
South Asia	66	40	10	58	33	10	54	28	6
Latin America	41	28	17	37	26	15	31	18	12
Africa	17	9	3	19	8	3	14	5	3
More developed regions[c]	349	235	103	284	190	83	207	116	39
Less developed regions[d]	170	106	38	157	91	32	146	82	29

[a] According to K. Davis, op. cit.
[b] Interpolated from estimates for 1950 and 1960 in this chapter.
[c] Europe, Northern America, Soviet Union, Japan, Temperate South America, Australia and New Zealand.
[d] East Asia without Japan, South Asia, Latin America without Temperate South America, Africa and Oceania without Australia and New Zealand.

demographic data, such as the continuously registered births, deaths and marriages, and non-demographic statistics such as housing censuses, income surveys, employment registers, school records and so forth. Studies in which statistics on various subjects must be combined are most conveniently carried out within this framework.

Studies covering the wider "metropolitan areas" are important for regional planning and development policies, especially because of the interest in examining integrative functions operating in the closely interdependent habitat. Since such areas are usually composed of groups of contiguous administrative units, the assembly of pertinent statistics does not necessarily meet too many obstacles.

Where urbanization is considered as a special form of land use and habitation, it is necessary to delimit the areas of compact settlement of an urban type so as to achieve comparable measurements. Unfortunately, the contours of compact settlement are subject to continuous change whenever building and construction works are carried out at the periphery. Detailed studies of the dynamics and characteristics of urbanization cannot easily be traced in time for a continuously varying geographic area. Many of these studies will have to be done with reference to cities proper or metropolitan areas despite the lack of coincidence between the administrative and physical boundaries of urbanized or urban-dominated zones. It may be hoped that as urban problems gain prominence in every part of the world adaptations will be made in the censuses to permit more comparable measurements of the sizes of agglomerations than has been possible so far.

B. THE "SMALL-TOWN" POPULATION

As already pointed out, the estimates of agglomerated and urban population in this report are not strictly comparable. The differences between the two sets of estimates should constitute what one might regard as the "small-town" population, but for reasons stated below the attempt to define concretely these calculated residuals ends in vagueness. This is regrettable, since an evaluation of size and trend of the population of small towns might have much interest for economic and social policy purposes.

Some large agglomerations are composed of many separate local government units, including some officially classified as rural and others that might be administratively qualified as separate small towns. Wherever the available data permitted, care was taken to avoid double reckoning by excluding from the count of smaller urban units those which were already considered as merged with major agglomerated units, but this differentiation could not be carried out accurately in many instances. The many errors introduced by time interpolations and auxiliary estimating methods are another source of weakness. Where each of two estimated quantities can be in error, the relative size of the error in their difference can become considerable.

It was also impossible to establish any meaningful differences between agglomerated and urban populations in those countries where data were scarce, where there were few urban localities or where there was a large measure of conjecture in the estimates. The uncertainty about the meaning of the residual estimates is considerable also as definitions of urban population vary among

Table 20. Total population, urban population as nationally defined, and population in localities with 20,000 inhabitants and over in major areas of the world, 1960

(Millions; percentage)

Major area	Percent of total population covered	Total population	Urban population as nationally defined		Localities of 20,000 inhabitants and over		Excess of urban over agglomerated population (percentage)
			Millions	Percent of total	Millions	Percent of total	
World total[a]	90	2,705	952	35	730	27	8
More developed major areas	99	845	500	59	388	46	13
Less developed major areas	87	1,860	452	24	342	18	6
Europe	99	419	245	58	187	45	13
Northern America	100	199	139	70	115	58	12
Soviet Union	100	214	106	49	78	36	13
Oceania[b]	81	13	10	78	8	65	13
East Asia[c]	98	782	178	23	143	18	5
South Asia[d]	90	766	145	19	108	14	5
Latin America	85	181	93	52	64	35	17
Africa[e]	48	131	36	28	27	21	7

[a] Excluding countries for which data with defined urban population could not be found, and countries without less than 1 million population in localities of 20,000 or more inhabitants.

[b] Excluding Oceanic countries and territories other than Australia and New Zealand.

[c] Data for mainland China very uncertain.

[d] Excluding some large countries, particularly in South-East and South-West Asia.

[e] Excluding many countries of Tropical Africa where urban population is still small, has not yet been defined or has been measured only in one recent census or survey.

countries and among successive censuses for the same countries, so that the margin of small towns included under an urban concept can be of greatly varied character.

Because of these many areas of doubt, the differences between estimated agglomerated and urban population noted in tables 20 to 22 should be considered mainly from the standpoint of methodological evaluation. The differences indicate the approximate extent to which estimates of agglomerated population fell short of the urban population as commonly understood under the various national concepts.

Owing to severe shortcomings in estimates for numerous small countries, the figures shown in tables 20 to 22 include less than the total world population. They are confined to countries where (1) at least 1 million population were estimated in localities of 20,000 or more inhabitants in 1960 and (2) census or other data have been presented distinguishing an urban population and permitting its estimation for both 1950 and 1960. In particular, this causes the omission of a large proportion of the population of Tropical Africa and of all of Oceania other than Australia and New Zealand, while considerable gaps remain in South-East and South-West Asia. Much uncertainty pertains also to the estimates of urban population of mainland China (though there are published data for 1949-1956), partly because the simple extrapolation of that series is quite debatable and partly because the estimates for the localities of 20,000 and more inhabitants are based insecurely on an extension of the distribution of larger localities by size group downward to smaller localities. For a different reason, namely, the great territorial enlargement of areas of municipal government, the comparison of the two sets of statistics

also has an uncertain meaning in the case of Japan. These and many other limitations of the comparison will have to be borne in mind.

From table 20 it may be inferred that about 8 per cent of the world's total population in 1960 were the inhabitants of small towns. The excess in the percentage of urban population over that in agglomerated population was generally between 12 and 13 in the more developed major areas and between 5 and 7 in the less developed major areas, whereas in Latin America the calculated small-town residual was as large as 17 per cent of the total population.[2] It appears that urban population is defined very liberally in Latin America since in many instances Latin American small towns are rather poor in urban features and amenities when compared with towns of a similar size in Northern America or Europe. The small percentages of calculated small-town population in East Asia, South Asia and Africa, on the other hand, partly reflect the generally low levels of urbanization in those areas. Some of these features were discussed in the preceding chapters.

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[2] Although the quantitative importance of small towns is rather similar in the four more developed areas, the qualitative significance of small towns may be somewhat greater in Europe than in much of Oceania and Northern America. In places such as Europe and mainland China, where many small towns have very early origins, there has been an accumulation of monuments, parks or architecture over time. The presence of such features in a small town may give it a more urban appearance than towns of equal population size in more recently settled areas. These features also appear to be associated with a stronger cultural focus generated by the local community in the form of clubs, social gatherings, social amenities, "street life" and other typically urban patterns of social interaction in the areas where such settlements have some antiquity.

Table 21. Urban population, as nationally defined, and population in localities with 20,000 inhabitants and over in major areas of the world, 1950 and 1960

(Millions; percentage)

Major area[a]	Urban population, as nationally defined		Localities of 20,000 inhabitants and over		Percentage increase, 1950-1960	
					Urban population	Agglomerated population
	1950	1960	1950	1960		
World total	678	952	516	730	40	42
More developed major areas . .	389	500	298	388	28	30
Less developed major areas. . .	289	452	216	342	57	58
Europe	205	245	158	187	19	18]
Northern America	106	139	84	115	31	37
Soviet Union	71	106	50	78	49	56
Oceania	7	10	6	8	40	40
East Asia	103	178	91	143	74	56
South Asia	103	145	72	108	40	50
Latin America	60	93	37	64	55	68
Africa	23	36	16	27	57	67

[a] For areas excluded, see footnotes to table 20.

Table 22. Rural population, as nationally defined, and population outside localities with 20,000 inhabitants and over in major areas of the world, 1950 and 1960

Major area[a]	Population other than urban, as nationally defined		Population outside localities with 20,000 inhabitants and over		Percentage increase, 1950-1960	
					Rural, as defined	Rural and small-town
	1950	1960	1950	1960		
World total	1,599	1,751	1,762	1,975	10	12
More developed major areas . .	353	346	444	457	−2	3
Less developed major areas. . .	1,246	1,405	1,318	1,518	14	15
Europe	181	175	228	233	−4	2
Northern America	60	60	82	83	0	2
Soviet Union	109	108	130	136	0	5
Oceania	3	3	4	5	−9	5
East Asia	570	603	581	638	6	10
South Asia	520	621	551	658	20	19
Latin America	77	87	100	119	14	17
Africa	79	94	86	103	19	20

[a] For areas excluded, see footnotes to table 20.

Considering the same figures in different terms, one finds that out of the nationally defined urban populations the calculated small-town population constituted 31 per cent in Latin America, between 24 and 26 per cent in Europe, the Soviet Union, South Asia and Africa, 20 per cent in East Asia and 17 per cent in Northern America and Oceania. Seen in yet another way, in the combined "rural and small-town populations" the small towns, as calculated, constituted 38 per cent in Oceania, between 25 and 28 per cent in Europe, Northern America and Latin America, 21 per cent in the Soviet Union and between 5 and 9 per cent in East Asia, South Asia and Africa. It is unfortunate that the comparison is so indefinite, since more reliable estimates of this detailed feature in the structure of the human habitat could be of some importance.[3]

[3] For many reasons, the special study of small-town populations would be well justified. Many links between the urban-industrial and the rural-agrarian sectors of the economy depend on a network of widely distributed small towns. Stagnation or decay in small towns increases the remoteness of these sectors of the economy and society from the mainstream and renders the economic, educational and cultural transitions necessitated in the process of urbanization more difficult. A strengthening of smaller urban settlement may offer some relief to rural population pressures and at the same time reduce heavy social overhead costs in congested big cities. The study of small towns should include an analysis of trends in various urban functions — administrative, commercial, educational, industrial, transport and so forth.

As can be inferred from table 21, urban and agglomerated populations increased, on the whole, at similar speeds between 1950 and 1960. Measured either way, the world's urbanized population was augmented by 40 or 42 per cent, in more developed major areas by 28 or 30 per cent and in less developed major areas by 57 or 58 per cent. There are, however, some deviations among major areas, and even greater deviations among individual countries (see annex IV, table 44), partly owing to changes in definition (e.g., in Europe) and other uncertainties in the estimates, especially those for East Asia. It cannot be definitely concluded that small towns have grown with less speed than larger urban settlements, but in at least five major areas the indications point in that direction.

Rural and small-town populations (i.e., populations of localities with fewer than 20,000 inhabitants) generally increased faster than the more strictly rural population according to the varied national definitions, and this can be gleaned from table 22. According to definitions, rural population actually declined in the more developed major areas, notably in Europe and Oceania, whereas the combined rural and small-town population increased somewhat. Because of the liberal definitions of urban population in Latin America, the rural population, as defined, increased appreciably less there than in South Asia and Africa where small towns apparently play a lesser role; the estimated rural and small-town populations in these three areas nevertheless grew more nearly with the same speeds. For reasons already mentioned, comparisons of the present data and estimates in East Asia are very dubious, reflecting administrative changes and methods of estimation rather than differences in rural population growth with the inclusion or exclusion of small towns.

Generally speaking, the figures suggest that small towns have been growing considerably faster than the more strictly rural population, yet probably slower than the localities of at least 20,000 inhabitants. Unfortunately, a dependable measurement cannot be made with two sets of figures obtained from such diverse estimates. Nor

could it be ascertained whether the apparently growing small towns are more often situated near the periphery of already existing cities, thereby adding to the phenomenon of urban concentration, or in the midst of the rural environment, thereby contributing to its more differentiated structure. More knowledge on this and related subjects would be desirable in view of the importance of development problems in rural and agricultural areas.

Returning to the methodological problem of this report, we note that the estimated urban population exceeded the estimated agglomerated population of the world by 31.4 per cent in 1950 and by 30.4 per cent in 1960; it was greater by 30.5 and 29.8 per cent in the more developed major areas combined, and by 33.8 and 32.2 per cent in the less developed major areas. Whereas these ratios are far from accurate, they provide a rough gauge for the re-estimation of the world's combined urban population at an earlier and a future date on the basis of more detailed past and future estimates of agglomerated population.

C. URBANIZATION LEVELS, 1920-1960 (CONFORMING TO NATIONAL DEFINITIONS)

Whereas the figures in table 12 (chap. II) may be fairly comparable among themselves, they do not express urbanization levels as these are understood in terms of national concepts of urban population. As already explained, for many parts of the world trends in urban population, as nationally defined, cannot be reconstructed over a long past period with tolerable accuracy. Nevertheless, the observations made in the present comparison of estimates for 1950 and 1960 permit at least a crude estimation of what might have been the small-town population at earlier dates, in relation to estimates of the population in localities with 20,000 or more inhabitants. Rough orders of magnitude of the small-town population, therefore, have been calculated in relation to the sizes of estimated populations in localities with 20,000-99,999 and 100,000-499,999 inhabitants in each of the

Table 23. Crude working figures of urban population, as it might have been defined in each country, for the world and major areas, 1920-1960

(Millions; figures rounded to the nearest 5 million)

Major area	1920	1930	1940	1950	1960
World total	360	450	570	700	990
More developed major areas	240	290	350	390	500
Europe	150	175	200	210	245
Northern America	60	75	85	105	140
Soviet Union	25	35	60	70	105
Oceania	5	5	5	5	10
Less developed major areas	120	160	220	310	490
East Asia	50	65	85	105	180
South Asia	40	50	75	110	155
Latin America	20	30	40	65	105
Africa	10	15	20	30	50
More developed regions	260	315	385	440	580
Less developed regions	100	135	185	260	410

Table 24. Crude estimates of urbanization levels, corresponding to national concepts, of the population of the world and major areas, 1920-1060

(Percentage of urban in total population)

Major area	1920	1930	1940	1950	1960
World total	19	22	25	28	33
More developed major areas . .	40	43	48	52	59
Europe	46	49	53	53	58
Northern America	52	56	59	64	70
Soviet Union	15	19	32	39	49
Oceania	47	50	53	56	64
Less developed major areas . . .	10	12	14	18	23
East Asia	9	11	13	15	23
South Asia	9	10	12	16	18
Latin America	22	28	31	41	49
Africa	7	9	11	14	18
More developed regions	39	42	47	51	60
Less developed regions	8	10	12	16	20

major areas,[4] and these added to the estimates of agglomerated population to obtain crude working figures. These might be regarded as the urban population, according to the types of existing definitions, at each of the earlier dates. Rounded to the nearest 5 million, the rough figures are shown in table 23.

With the use of these working figures, one arrives at estimated urbanization levels as presented in table 24. These levels are higher than the ones shown in table 12 because of the inclusion of the hypothetical small towns. However, these would have to be defined and it cannot be ascertained how they might have been defined in the censuses of various countries on earlier occasions. On the whole, these working figures parallel the trends already discussed. They are shown despite their crudity, as mere orders of magnitude, owing to the interest which remains in the measurement of urbanization in accordance with the conventional concepts. It will be recalled that by these concepts the urbanization level is comparatively high in Latin America because in that region larger numbers of rather small centres are still recognized as having "urban" character.[5]

The urbanization level, so measured, rose in the forty years from 39 to 60 per cent in the more developed regions, and from 8 to 20 per cent in the less developed regions. In absolute terms, urbanization progressed faster in the more developed regions, since the percentage rose by 21 points there, while in the less developed regions it rose by 12 points. In relative terms, it can be said that urbanization advanced faster in the less developed regions because there the level more than doubled while in more developed regions it was only augmented by one half.

Both absolutely and relatively, the rise in urbanization level was greatest in the Soviet Union.

D. ROUGH ESTIMATES OF STRICTLY RURAL POPULATION, 1920-1960

Reference is made once more to the crude working figures of urban population, as it might have been variously defined, which were shown in table 23. By subtraction from estimates of total population, such as those shown in table 8 of the preceding chapter, one obtains similarly crude working figures of rural population. For reasons already explained, these are even less accurate than the present estimates of rural and small-town population (e.g., those in table 8), but as there is some interest in the orders of magnitude of strictly rural population (i.e., in accordance with the various national concepts), working figures of rural population are shown in table 25, rounded to the nearest 5 million.

Taken at face value, the figures suggest no significant changes in the size since 1930 in the rural populations of Europe, Northern America and Oceania, nor in the Soviet Union since 1950.[6] The population which might at any time be defined as rural in the more developed major areas appears to have become stabilized. A large decline in rural population for developed regions combined nevertheless appears also during 1950-1960, but this must be attributed in large measure to the extensive reclassification of administrative areas in Japan.[7]

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[4] From estimates for 1950 or 1960 an arithmetic relationship between population totals in these two locality size groups and the small town population was derived for each major area, and it was assumed that similar relationships are also held at the earlier dates. These are the estimates also included in table 14 (chap. II). Admittedly, this estimating method is very crude.

[5] See also section B of this chapter.

[6] In the Soviet Union, the decrease in the 1930s is associated with the intensive programme of farm collectivization and industralization of that period. Large population losses were incurred during the war of 1941-1945.

[7] According to the present estimates, the population of Japan increased during 1950-1960 from 82.9 million to 93.2 million. The population of agglomerations larger than 20,000 increased from 31.2 million to 42.9 million; hence rural and small-town population decreased only slightly, from 51.7 million to 50.3 million. The population classified as urban, however, increased from 30.9 million to 58.7 million; hence the population classified as rural decreased very considerably, from 52.0 million to 34.5 million.

Table 25. Crude working figures of rural population, as it might have been defined in each country, for the world and major areas, 1920-1960

(Millions; figures rounded to the nearest 5 million)

Major area	1920	1930	1940	1950	1960
World total	1,500	1,620	1,725	1,810	2,000
More developed major areas . .	365	390	380	355	355
Europe	175	180	180	180	180
Northern America	55	60	60	60	60
Soviet Union	130	145	135	110	110
Oceania	5	5	5	5	5
Less developed major areas . . .	1,135	1,230	1,345	1,455	1,645
East Asia	500	520	550	580	615
South Asia	430	480	535	585	700
Latin America	70	80	90	100	110
Africa	135	150	170	190	220
More developed regions	415	445	435	420	395
Less developed regions	1,085	1,175	1,290	1,390	1,605

Not only the inclusion of Japan but also large uncertainties in determining the urban population of China, rob the series of working estimates of rural population for East Asia of most of their value. It is possible that increases in the rural population on the Chinese mainland were of a magnitude of about 20 to 30 million per decade between 1920 and 1950 and about 50 million between 1950 and 1960, but the lack of definite information makes this a very debatable matter. The estimates for Africa depend similarly to a large measure on conjectures. On the other hand, the estimates for South Asia and Latin America are fairly substantiated by censuses. Accelerating urbanization has maintained increases in the strictly rural population of Latin America at the almost constant level of about 10 million per decade. In South Asia, the increments per decade were of the order of 50 million between 1920 and 1950, whereas during 1950-1960 the increase was well in excess of 100 million.[8]

E. URBANIZATION LEVELS ACCORDING TO SUCCESSIVELY HIGHER SIZE LIMITS, 1920-1960

In the course of urbanization, the urban centres increase both in number and size. When the study considers only the agglomerations above some fixed size limit, it is evident that these become more numerous whenever the size limit is attained and surpassed by previously smaller localities. Some localities, of course, may also decline and again fall below the given size limit. The growth of the population in localities above any given size limit, then, is the result of natural increase and net migration in given localities, the net entry into the size group of additional localities and also the natural and migratory increases in those additional localities.

In the population figures for localities above various size limits assembled in table 26, use is also made of the

working figures (see table 23) of the total size of urban population (small towns included) as it might have been variously defined. The extreme vagueness of the implied estimates for the small-towns category, however, will have to be borne in mind. Estimates of population in localities above selected size limits are provided for individual countries in annex IV, tables 41 to 44.

The world's urban population may have grown from 360 million in 1920 to 990 million in 1960, the latter figure being 2.75 times the former. The agglomerated population, estimated as 266 million in 1920 and 760 million in 1960, appears to have grown to 2.85 times its previous size. The increase in city population (100,000 and over) from 170 million to 536 million was 3.15-fold; that in big-city population (500,000 and over), from 107 million to 352 million, was 3.3-fold; and that in multimillion city population, from 36 million to 141 million,[9] was almost fourfold. That the increase should have been comparatively the largest in the terminal groups is logical since — except for the decline of only a few big cities — the movement is only inward. In groups of intermediate sizes, on the other hand, population is added by the entry of additional centres which previously were smaller, but population is again subtracted when large centres pass into the next higher size group.

The progressively faster growth in successive size groups characterizes especially the less developed regions. In the more developed regions, during the forty years, the urban population grew 2.2-fold, the agglomerated population 2.3-fold, the city population and big-city population 2.4-fold, and the multimillion city population 3.6-fold.[10] There were no conurbations as large as 12,500,000 until shortly before 1960. In the less developed regions, meanwhile, urban population is estimated to

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[8] Reclassification as rural of some localities previously defined as urban in India accounts for an addition of about 4.4 million to the rural population, but that is only a minor distortion in relation to this enormously accelerated growth.

[9] Including the super-conurbations of New York (including northeastern New Jersey) and Tokyo (including Yokohama).

[10] Including the super-conurbations of New York and Tokyo.

Table 26. Urban population (rounded to the nearest 5 million), and population in agglomerations above selected size limits, in the world and major areas, 1920, 1940 and 1960

(Millions)

Major area	Urban population	Agglomerations with more than:				
		20,000 inhabitants	100,000 inhabitants	500,000 inhabitants	2,500,000 inhabitants	12,500,000 inhabitants
1920						
World total	360	266.4	169.8	106.6	35.5	...
More developed major areas	240	179.9	124.0	82.1	31.3	...
Europe	150	112.9	74.0	51.7	19.9	...
Northern America	60	47.9	39.4	27.0	11.4	...
Soviet Union	25	16.0	8.0	1.7	...	...
Oceania	5	3.1	2.6	1.7	...	...
Less developed major areas	120	86.5	45.8	24.5	4.2[a]	...
East Asia	50	39.8	21.2	13.6	4.2[a]	...
South Asia	40	26.9	13.0	4.6	...	...
Latin America	20	12.9	8.5	5.4	...	...
Africa	10	6.9	3.1	0.9[b]	...	...
More developed regions	260	197.7	137.6	92.9	35.5	...
Less developed regions	100	68.7	32.2	13.7	...	...
1940						
World total	570	431.5	288.8	181.1	74.8	...
More developed major areas	350	267.9	189.8	125.2	52.1	...
Europe	200	149.8	99.9	68.4	22.8	...
Northern America	85	66.6	55.9	39.0	20.7	...
Soviet Union	60	47.0	30.0	15.4	8.6	...
Oceania	5	4.5	4.0	2.4	...	...
Less developed major areas	220	163.6	99.0	55.9	22.7	...
East Asia	85	73.7	46.4	27.8	15.8	...
South Asia	75	50.6	27.7	13.4	3.4[c]	...
Latin America	40	25.5	17.3	11.8	3.5[d]	...
Africa	20	13.8	7.6	2.9	...	...
More developed regions	385	303.9	217.7	145.7	67.6	...
Less developed regions	185	127.6	71.1	35.4	7.2	...
1960						
World total	990	760.1	536.1	352.2	141.5	27.7[a, e]
More developed major areas	500	389.2	282.9	186.0	68.3	14.2[e]
Europe	245	187.9	125.2	81.4	22.1	...
Northern America	150	115.3	99.9	72.5	36.6	14.2[e]
Soviet Union	105	78.0	51.0	26.9	9.6	...
Oceania	10	8.3	6.8	5.2	...	...
Less developed major areas	490	370.9	253.2	166.2	73.2	13.5[a]
East Asia	180	147.1	106.7	77.8	35.1	13.5[a]
South Asia	155	117.5	74.5	42.4	12.6	...
Latin America	105	69.7	48.4	35.2	20.7	...
Africa	50	36.5	23.6	10.8	3.3[b]	...
More developed regions	580	449.4	328.9	221.6	95.3	27.7[a, e]
Less developed regions	410	310.7	208.2	130.6	46.2	...

[a] Tokyo.
[b] Cairo.
[c] Calcutta.
[d] Buenos Aires.
[e] New York.

have grown 4.1-fold, agglomerated population, 4.5-fold, city population, 6.4-fold and big-city population, 9.5-fold. Cities larger than 2,500,000 apparently had not yet come into being in less developed regions in 1920.

It is of some interest to compare the 1920-1960 increases of urban population (as estimated very roughly) and of big-city population (500,000 and over) in each major area.

Increases in urban population were by roughly 95 million in Europe and 80 million each in Northern America and the Soviet Union; big-city population meanwhile increased by 30 million in Europe, 45 million in Northern America and 25 million in the Soviet Union. Thus measured, big-city growth accounted for less than one third of urban growth in Europe, about one third in the Soviet Union and more than one half in Northern

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America. In Oceania, the lion's share of urban growth also accrued to the big cities.

In East Asia, South Asia, Latin America and Africa, the estimated urban growth amounted to 130 million, 115 million, 85 million and 40 million, respectively. Big-city growth, in those four areas, amounted to about 65 million, 40 million, 30 million and 10 million. Big cities, and others attaining that magnitude, then absorbed about one half of the urban growth in East Asia, about one third in South Asia and Latin America, and about one quarter in Africa.

Owing to unequal rates of growth of different size categories, the world's urban population have become geographically redistributed to a varying extent. In

table 27 the percentages of world totals for these categories illustrate some of the changes in the world's pattern of urban settlements.

In 1920, when only 28 per cent of the entire world's urban populations was situated in the less developed regions, the latter regions contained 26 per cent of the world's agglomerated population, 19 per cent of its city population, 13 per cent of its big-city population and, as yet, not a single multimillion city. In 1960, as estimated, the less developed regions comprised 41 per cent of the world's urban, 41 per cent of its agglomerated, 39 per cent of its city, 37 per cent of its big-city, and 33 per cent of its multimillion city population.

It does not follow from these observations that the

Table 27. Percentage of world's urban population and of world's population in agglomerations above selected size limits in each major area, 1920, 1940 and 1960

Major area	Urban population	Agglomerations with more than:				
		20,000 inhabitants	100,000 inhabitants	500,000 inhabitants	2,500,000 inhabitants	12,500,000 inhabitants
1920						
World total	100	100	100	100	100	...
More developed major areas	67	68	73	77	88	...
Europe	42	42	44	48	56	...
Northern America	17	18	23	25	32	...
Soviet Union	7	6	5	2	...	...
Oceania	1	1	1	2	...	...
Less developed major areas	33	32	27	23	12	...
East Asia	14	15	12	13	12	...
South Asia	11	10	7	4	...	...
Latin America	6	5	5	5	...	...
Africa	3	3	2	1	...	...
More developed regions	72	74	81	87	100	...
Less developed regions	28	26	19	13	...	...
1940						
World total	100	100	100	100	100	...
More developed major areas	61	62	66	69	70	...
Europe	35	35	35	38	30	...
Northern America	15	15	19	22	28	...
Soviet Union	11	11	10	9	11	...
Oceania	1	1	1	1	...	...
Less developed major areas	39	38	34	31	30	...
East Asia	15	17	16	15	21	...
South Asia	13	12	10	7	5	...
Latin America	5	6	6	7	5	...
Africa	4	3	2	2	...	...
More developed regions	68	70	75	80	90	...
Less developed regions	32	30	25	20	10	...
1960						
World total	100	100	100	100	100	100
More developed major areas	51	51	53	53	48	51
Europe	25	25	23	23	16	...
Northern America	14	15	21	21	26	51
Soviet Union	11	10	10	8	7	...
Oceania	1	1	1	1	...	...
Less developed major areas	49	49	47	47	52	49
East Asia	18	19	20	22	25	49
South Asia	16	15	14	12	9	...
Latin America	11	9	9	10	15	...
Africa	5	5	4	3	2	...
More developed regions	59	59	61	63	67	100
Less developed regions	41	41	39	37	33	...

urban network of less developed regions is becoming more similar to that of more developed regions. Differentiating factors persist which produce much diversity among regions in each of the two categories. As has been noted elsewhere, a wide network of minor urban centres has long existed in Europe and Latin America, if not also in the Soviet Union, South Asia and East Asia; as witnessed by their continuing growth, these minor centres have maintained some vitality. Big-city development in Northern America and Oceania, to some extent also in Latin America, has been especially stimulated by the influx of overseas migrants. When overseas migration was at its peak, the destinations of most migrants were no longer rural settlements but rather urban, industrial centres.

Noteworthy changes also occurred in the ranks of major areas in respect of world urban population of varied size limits. Europe, for instance, was of progressively higher rank in 1920 when bigger cities are considered. It then had 42 per cent of the world's urban population, 48 per cent of the world's big-city population and 56 per cent of the world's multimillion city population. In 1960, however, these rankings were reversed and Europe had 25 per cent of the urban population, 23 per cent of the big-city population and only 16 per cent of the multimillion city population then found in the world.

The opposite change in rankings occurred in East Asia. That major area had world shares of 14 per cent in urban, 13 per cent in big-city and 12 per cent in multi-

Table 28. Percentage of the total population of the world and of each major area in urban localities and in agglomerations above selected size limits, 1920, 1940 and 1960

Major area	Urban population	Agglomerations with more than:				
		20,000 inhabitants	100,000 inhabitants	500,000 inhabitants	2,500,000 inhabitants	12,500,000 inhabitants
1920						
World total	19	14	9	6	2	...
More developed major areas	40	30	21	14	5	...
Europe	46	35	23	16	6	...
Northern America	52	41	34	23	10	...
Soviet Union	15	10	5	1	...	...
Oceania	47	37	30	20	...	...
Less developed major areas	10	7	4	2	0[a]	...
East Asia	9	7	4	2	1	...
South Asia	9	6	3	1	...	...
Latin America	22	14	9	6	...	...
Africa	7	5	2	1	...	...
More developed regions	39	29	20	14	5	...
Less developed regions	8	6	9	1	...	...
1940						
World total	25	19	13	8	3	...
More developed major areas	48	37	26	17	7	...
Europe	52	40	26	18	6	...
Northern America	59	46	39	27	14	...
Soviet Union	32	24	15	8	4	...
Oceania	53	41	36	22	...	...
Less developed major areas	14	10	6	4	1	...
East Asia	13	12	7	4	2	...
South Asia	12	8	5	2	1	...
Latin America	31	20	13	9	3	...
Africa	10	7	4	2	...	...
More developed regions	47	37	26	18	8	...
Less developed regions	12	9	5	2	0[a]	...
1960						
World total	33	25	18	12	5	1
More developed major areas	59	46	33	22	8	2
Europe	58	44	28	19	5	...
Northern America	70	58	50	36	18	7
Soviet Union	49	36	24	13	4	...
Oceania	64	53	44	33	...	...
Less developed major areas	23	17	12	8	3	1
East Asia	23	19	13	10	4	2
South Asia	18	14	9	5	1	...
Latin America	49	33	23	17	10	...
Africa	18	13	9	4	1	...
More developed regions	60	46	34	23	10	3
Less developed regions	20	15	10	6	2	...

[a] Less than 0.5 per cent.

million city population in 1920. In 1960, these shares had risen to 18, 22 and 25 per cent, including at that date also one of the two largest conurbations in the world.

Other pecularities of settlement pattern emerge when the levels of urbanization are compared in terms of successively higher size limits of localities, as is done in table 28. The percentages are those of urban population of each category in the total population of each area.

The proportion of urban in the total population, for instance, was 46 per cent in Europe and 52 per cent in Northern America in 1920, but already at that date Northern America considerably outranked Europe in the proportion of big-city population, namely, 23 per cent as compared with Europe's 16 per cent. By 1960, this disparity of pattern had widened further: 58 per cent of the population of Europe and 70 per cent of that of Northern America was urban, but only 19 per cent of the population of Europe was in big cities as compared with Northern America's 36 per cent. Northern America and Oceania are the two major areas where cities larger than 500,000 have come to embrace more than half of the urban population and, in fact, more than one third of the total population.

In 1960, the populations of the Soviet Union and Latin America each were urbanized to the extent of 49 per cent, in accordance with the national concepts of urban localities. But multimillion cities then contained 10 per cent of the entire population of Latin America, as compared with 4 per cent in the Soviet Union and 5 per cent in Europe.

Chapter IV

A TENTATIVE ASSESSMENT OF POSSIBLE FUTURE TRENDS

The necessity to formulate policies and plans compels the exercise of what seems a rational foresight in the light of current knowledge. Since there are countless factors of inconceivable variety affecting the direction of events, the farther we look into the future of the human condition the greater is the possibility of error in predicting its course. Even seemingly stable elements of the immediate situation can be suddenly interrupted or transformed. An attitude of flexibility, therefore, is requisite for the consideration of forecasts, permitting modifications of assessment as new facts appear.

The considerable inertia observed in fertility and mortality trends makes it reasonable to project populations for the next two or three decades. In the present study, the universality and the momentum of urbanization has been clearly demonstrated. Particular circumstances that are liable to break this momentum are not known, hence it seems logical to assume that urbanization will continue for some time at a pace similar to that observed in recent decades. Experience in measuring and extrapolating urbanization trends is as yet much more limited than in projecting total population. The accuracy of total population projections, and they have often erred, is a major factor in the projection of their component urban and rural sectors. Obviously, only a very tentative assessment can be made, open to early revision.

A. TOTAL POPULATION PROJECTIONS

The United Nations projections for total population of the world, major areas and regions have been used here in estimating future urban and rural populations.[1] To avoid a bewildering array of alternatives, only the "medium" variant of the total population projections has been selected. As that report pointed out, however, there is an equal likelihood that trends could develop according to either the "high" or "low" variant.[2] The omission of an adjusted estimate for the population of Pakistan in 1960

is the only modification that has been introduced here.[3] With this modification, the estimated future growth in the total population of the world and major areas according to the "medium" variant is shown in table 29.

B. THE PROJECTION OF AGGLOMERATED AND RURAL AND SMALL-TOWN POPULATION

In accordance with the plan of the report, projections are calculated in terms of "agglomerated population" (localities of 20,000 or more inhabitants) and the balance of "rural and small-town population". Subsequently (section F of this chapter), the corresponding tentative estimates of "urban" and "rural" population, as they are variously defined, are derived.

An accurate projection of urban and rural population growth would have to include a forecast of the effects of changing economic, social, cultural and political circumstances on the population, a condition unattainable at the present time. In simplest mathematical terms, the size of total population is limited to the sum of urban and rural populations; when change in total and urban populations is ascertained, the rural population is then determined as a residual. And at a given rate of growth in total population, the growth in one of its segments, urban or rural, could diminish only if the growth in the other segment were accelerated in a fashion to have compensating effect. Within this mathematical framework, therefore, any two rates of growth determine the third in a manner that can be calculated.[4]

Observations of past periods strongly suggest some mutual influences between rates of growth of total, urban and rural population, and also between those rates and the levels of urbanization already attained. It has not been possible to reduce the apparent connexions to any precise formula. The interaction between these parameters can be interpreted in several ways, none of them inconsistent with reasonable considerations. Calcu-

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[1] *World Population Prospects as Assessed in 1963* (United Nations publication, Sales No.: 66.XIII.2).

[2] For instance, world total population in 1980 was estimated as 4,551 million according to the "high", 4,330 million according to the "medium" and 4,147 million according to the "low" variant. For the year 2000 the three totals were 6,994 million, 6,130 million and 5,449 million. This does not preclude future developments falling even far outside this range of estimates.

[3] In *World Population Prospects as Assessed in 1963*, an adjustment was introduced leading to 100 million as the estimated population of Pakistan in 1960. For consistency with earlier estimates, the previous figure of 92,578,000 is retained here. Projections for South Asia (e.g., in table 29) have been pro-rated in proportion to a correspondingly reduced total.

[4] Actually, the matter is less simple since varying rises in levels of urbanization may have secondary effects on the rates of population growth themselves, producing "feedbacks" in terms of cybernetic analysis.

Table 29. Population projections for the world and major areas, 1960-2000

(Millions)

Major area	1960	1970	1980	1990	2000
World total[a]	2,991	3,584	4,318	5,174	6,112
More developed major areas . .	854	946	1,042	1,153	1,266
Europe	425	454	479	504	527
Northern America	199	227	262	306	354
Soviet Union	214	246	278	316	353
Oceania	16	19	23	27	32
Less developed major areas[a] . .	2,137	2,638	3,276	4,021	4,846
East Asia	794	911	1,041	1,168	1,287
South Asia[a]	858	1,098	1,408	1,768	2,153
Latin America	212	283	378	498	638
Africa	273	346	449	587	768
More developed regions	976	1,082	1,194	1,318	1,441
Less developed regions[a]	2,015	2,502	3,124	3,856	4,671

[a] Estimate for Pakistan not adjusted.

lations made on the basis of the regional 1920-1960 estimates of agglomerated and rural and small-town populations to determine these parameters have yielded observations with some degree of applicability in every region. Four having the greatest pertinence are:

(a) That constant rates of growth of urban population were more likely to prevail where levels of urbanization were low than where they were high;

(b) That constant rates of growth of rural population were more likely to prevail where levels of urbanization were high than where they were low;

(c) That the rise in urbanization level was more likely to conform to an average formula[5] where population grew rapidly than where it grew slowly;

(d) That the rate of growth in urban population was more likely to be about twice that in total population where population grew slowly than where it grew rapidly.

It was decided, therefore, to calculate future urban and rural population[6] according to each of these four rules and to average the four results, giving different weight to each of the four rules in each region, according to their different levels of urbanization and rates of population growth. One further limitation was introduced by assuming that the agglomerated population (in localities

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[5] A good fit to the average of observations seemed to be obtained for a simple formula by putting

$$b = \frac{a(75 - a)}{800} + a,$$

where a is the level of urbanization (percentage of total population in localities with 20,000 or more inhabitants) at a given point in time, and b the level to be estimated for a date five years later. Only a simple formula was sought, and the one adopted for the present purpose should not be regarded as having any inherent merit other than an approximate fit of the present observations.

[6] i.e., agglomerated (20,000 inhabitants and over) and rural and small-town population. Since use was made of the projections of total population in *World Population Prospects as Assessed in 1963* rural and small-town population was obtained as the residual where agglomerated population was projected, and *vice versa*.

with 20,000 or more inhabitants) would never exceed 75 per cent of the total population, i.e., that at least 25 per cent would remain the inhabitants of rural areas or small towns. Where one of the four calculations led to a larger urban total, 75 per cent of the projected total population was substituted.

To illustrate the manner of calculation and indicate the weight given to each rule in each region, results for 1980 are shown in table 30. It will be noted that in some instances the several rules led to rather disparate results, whereas in other instances the several results were not far apart. The selection of weights also has some elements of arbitrariness. While perhaps quite plausible, the results of the calculation are highly tentative and should only be regarded in this light.

C. PROJECTED INCREMENTS, 1960-1980

Table 31 shows projected total, agglomerated and rural and small-town populations of the world and major areas, as calculated by the methods described above. It is expected that there will be many revisions, some perhaps substantial, when the results of the 1970 censuses become known. Pending the availability of new information, however, these figures may serve as working estimates and help in establishing a framework that will facilitate the presentation of detailed analyses of succeeding studies.

In calculating these estimates, it appeared that for each year around 1970 the world's population in agglomerations of 20,000 or larger may be increasing by about 30 million per year, with almost 10 million accruing to the more developed regions and about 20 million to the less developed. Annual increase around 1970 in the world's rural and small-town population may be roughly 35 million, virtually all of it accruing to the less developed regions. Little change in size is indicated for rural places and small towns in the more developed areas. Here, the calculations are consistent with a stabilization in this

Table 30. Calculation of agglomerated population (localities with 20,000 inhabitants and over) according to each of four rules, weights given to each rule and resulting weighted averages for twenty-one world regions in 1980

Region	Agglomerated population (millions) calculated by each rule[a]					Weight given to each rule[a]				Weighted average
	(a)	(b)	(c)	(d)	. (a)	(b)	(c)	(d)	
Western Europe	82.6	77.8	82.9	83.4	2	3	1	4	81.5
Northern Europe	53.4	50.2	51.8	51.9	1	4	1	4	51.4
Southern Europe	68.9	55.9	61.0	57.8	3	2	1	4	61.1
Easten Europe	39.9	45.0	45.0	44.6	3	2	1	4	43.3
Northern America	178.8	168.8	163.7	196.2[b]	1	4	2	3	177.0
Soviet Union	172.2	142.8	120.5	121.5	3	2	2	3	140.8
Japan	74.7	56.4	58.4	62.2	2	3	1	4	62.6
Temperate South America	32.8	26.9	26.9	34.3	2	3	2	3	30.3
Australia and New Zealand . . .	13.3	12.7	12.0	13.3[b]	1	4	2	3	12.8
Mainland East Asia	169.8	219.6	156.4	152.7	4	1	2	3	167.0
Other East Asia.	48.6	38.1	28.2	40.3	3	2	4	1	47.4
Middle South Asia	157.2	...[c]	166.3	201.9	5	0	3	2	168.9
South-East Asia	66.5	...[c]	61.3	75.9	5	0	3	2	66.8
South-West Asia	24.6	40.2	29.7	42.2	4	1	4	1	30.0
Tropical South America	84.6	98.7	78.5	...[c]	3	2	5	0	84.4
Middle American mainland . . .	39.1	46.2	34.0	...[c]	3	2	5	0	38.0
Caribbean	10.6	11.5	9.8	12.2	4	1	3	2	10.7
Northern Africa	34.4	54.6	37.6	52.5	4	1	4	1	39.5
Tropical Africa	41.7	...[c]	30.9	35.6	5	0	3	2	37.2
Southern Africa.	12.4	13.5	11.6	16.0	3	2	3	2	13.1
Other Oceania[d]	0.3	...[c]	0.2	0.3	5	0	3	2	0.3

[a] Rule (a): agglomerated population increasing at the average 1920-1960 rate; rule (b): rural and small-town population increasing at the average 1920-1960 rate; rule (c): percentage of agglomerated population rising according to formula stated in text; rule (d): agglomerated population increasing at twice the rate of total population, as projected.

[b] Seventy-five percent of projected total population (agglomerated population projected under this rule would exceed that figure).

[c] No weight given to this rule.

[d] Agglomerated population assumed to grow at the same rates as in Tropical Africa.

combined population category and, as there may be some growth in small towns, the strictly rural population may actually decline.

Around 1970, it appears that the annual world population increase may total something near 65 million and that it may be distributed among major areas in the order of the following magnitudes (millions):

	Total	Agglomerated	Rural and small-town
South Asia	27.5	7.5	20.0
East Asia	12.5	6.0	6.5
Africa	8.5	2.5	6.0
Latin America.	8.0	4.5	3.5
Northern America	3.0	3.0	0.0
Soviet Union	3.0	3.0	0.0
Europe	3.0	2.5	0.5
Oceania	0.5	0.5	0.0
World total.	66.0	29.5	36.5

D. POSSIBLE LONG-RUN TRENDS, 1920-2000

From past records, it is reasonable to expect fluctuations in the growth of urban and rural population and it is unlikely that future trends will be so smooth as they were calculated for five-year intervals as shown in table 31. On the other hand, past observations suggest

that the momentum of urbanization asserts ertself rathi firmly over longer periods within which fluctuations tend to be compensated. The calculations described in the foregoing have been carried out for periods up to the year 2000, and it may be useful to review the calculated future trends, and compare them with estimated past trends, at least in terms of twenty-year periods. The estimates for 1920, 1940, 1960, 1980 and 2000 are brought together in table 32.[7] These speculative figures may serve to convey the orders of magnitude at issue in the redistribution of the world's population among urban and rural areas.

Growing from 200 million in 1920 to 450 million in 1960, the agglomerated population of the more developed regions has more than doubled in forty years, and it may double again to reach a total of 900 million in 2000. In the less developed regions, agglomerated population has more than quadrupled in the past forty years, and it may more than quadruple also in the forty years to come; in the year 2000 it may be twenty times as large as it was in the year 1920.

Rural and small-town population in the more developed regions gained only by one tenth in the past forty years,

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[7] Figures for totals are sums of figures for subtotals rounded to the nearest million.

Table 31. Total, agglomerated and rural and small-town population in the world and major areas, as projected for the period 1960-1980

(Millions)

Major area	1960	1965	1970	1975	1980	1980 as percentage of population 1960
Total population						
World total[a]	2,991	3,272	3,584	3,935	4,318	144
More developed major areas	854	901	946	992	1,042	122
Europe	425	440	454	467	479	113
Northern America	199	213	227	243	262	132
Soviet Union	214	231	246	261	278	130
Oceania	16	17	19	21	23	144
Less developed major areas[a]	2,137	2,371	2,638	2,943	3,276	153
East Asia	794	852	911	976	1,041	131
South Asia[a]	858	968	1,098	1,246	1,408	164
Latin America	212	245	283	328	378	178
Africa	273	306	346	393	449	164
More developed regions	976	1,032	1,082	1,136	1,194	122
Less developed regions[a]	2,015	2,240	2,502	2,799	3,124	155
Agglomerated population (localities of 20,000 inhabitants and over)						
World total	760	877	1,010	1,169	1,354	178
More developed major areas	389	429	472	517	568	146
Europe	188	201	214	225	237	126
Northern America	115	129	142	159	177	154
Soviet Union	78	90	105	121	141	181
Oceania	8	9	11	12	13	158
Less developed major areas	371	448	538	652	786	212
East Asia	147	171	198	231	267	182
South Asia	118	144	176	217	266	226
Latin America	69	87	107	133	163	234
Africa	37	46	57	71	90	246
More developed regions	450	496	546	600	661	147
Less developed regions	310	381	464	569	693	223
Rural and small-town population (localities of less than 20,000 inhabitants)						
World total	2,231	2,395	2,574	2,766	2,964	133
More developed major areas	465	472	474	475	474	102
Europe	237	239	240	242	242	102
Northern America	84	84	85	84	85	101
Soviet Union	136	141	141	140	137	100
Oceania	8	8	8	9	10	128
Less developed major areas	1,766	1,923	2,100	2,291	2,490	141
East Asia	647	681	713	745	774	120
South Asia	740	824	922	1,029	1,142	154
Latin America	143	158	176	195	215	151
Africa	236	260	289	322	359	152
More developed regions	526	536	536	536	533	101
Less developed regions	1,705	1,859	2,039	2,230	2,431	143

[a] Estimate for Pakistan not adjusted.

and it may gain only slightly in the four decades of the future. The rural and small-town population of the less developed regions, on the other hand, has increased by one half from 1920 to 1960, and it may almost double from 1960 to 2000 it if is then to attain the calculated total of 3,235 million.

In the more developed regions, agglomerated population may continue growing by increasing amounts though with diminishing momentum: 106 million were added to this total from 1920 to 1940 and 146 million from 1940 to 1960; further additions may be 211 million during 1960-1980 and 240 million during 1980-2000. As already stated, rural and small-town population may no longer grow by large amounts in these regions.

In the less developed regions, ever larger increments in the agglomerated populations can be foreseen, amount-

Table 32. Total, agglomerated, and rural and small-town population of the world and major areas, as estimated for 1920, 1940, 1960, 1980 and 2000

(Millions)

Major area	1920	1940	1960	1980	2000
Total population					
World total	1,860	2,295	2,991	4,318	6,112
More developed major areas	604	729	854	1,042	1,266
Europe	325	379	425	479	527
Northern America	116	144	199	262	354
Soviet Union	155	195	214	278	353
Oceania	8	11	16	23	32
Less developed major areas	1,256	1,566	2,137	3,276	4,846
East Asia	553	634	794	1,041	1,287
South Asia	470	610	858	1,408	2,153
Latin America	90	130	212	378	638
Africa	143	192	273	449	768
More developed regions	673	821	976	1,194	1,441
Less developed regions	1,187	1,474	2,015	3,125	4,671
Agglomerated population (localities of 20,000 inhabitants and over)					
World total	267	432	760	1,354	2,337
More developed major areas	180	268	389	567	784
Europe	113	150	188	237	290
Northern America	48	67	115	177	253
Soviet Union	16	47	78	141	222
Oceania	3	4	8	13	19
Less developed major areas	87	164	371	786	1,553
East Asia	40	74	147	267	425
South Asia	27	51	118	266	568
Latin America	13	25	69	163	342
Africa	7	14	37	90	218
More developed regions	198	304	450	661	901
Less developed regions	69	128	310	693	1,436
Rural and small-town population (localities of less than 20,000 inhabitants)					
World total	1,593	1,862	2,231	2,964	3,775
More developed major areas	424	461	465	474	482
Europe	212	229	237	242	237
Northern America	68	77	84	85	101
Soviet Union	139	148	136	137	131
Oceania	5	7	8	10	13
Less developed major areas	1,169	1,402	1,766	2,490	3,293
East Asia	513	560	647	774	862
South Asia	443	559	740	1,142	1,585
Latin America	77	105	143	215	296
Africa	136	178	236	359	550
More developed regions	475	517	526	533	540
Less developed regions	1,118	1,346	1,705	2,431	3,235

ing to 59 million, 182 million, 383 million and 743 million in each of the four successive twenty-year periods. During 1960-1980 alone, the increase may be considerably larger than it has been in the entire preceding forty-year period. Despite these rapidly mounting increments, causing the agglomerated population to double every twenty years, the rural and small-town population of less developed regions may continue growing by even larger amounts to the end of the century, namely, by more than 700 million during 1960-1980, and possibly by 800 million during 1980-2000. Not only the increases in agglomerated

population but also those in rural and small-town population in each of the less developed major areas during 1960-1980 are apt to exceed the corresponding increases which have been estimated for the entire 1920-1960 period, which was twice as long.

There may be good reasons to question the plausibility of such a forecast. The magnitudes of some of the projected increases are so great that they cannot be related to anything of which there is past experience. If it is doubted that agglomerated population in less developed regions can increase so much, then one of two

alternatives will have to be accepted. If the increase of agglomerated population is smaller, there would have to be either an even greater increase in rural and small-town population or a more marked cut-back in the rate of growth of the total population than the projections foresee. It should be observed that the latter alternatives are no less speculative than the original hypothesis. Whereas the detail of the forecast cannot be credited with great accuracy — such detailed foresight would not now be possible — unprecedentedly large future increments must probably be anticipated in both the urban and rural population. What economic and social accommodations can, or actually will, be made cannot be foretold. Neither could the world's present circumstances have been foreseen in any forecasts that might have been made some thirty years ago.

The composition of world population and its growth are also illustrated in figure VII. The pie diagrams at the left of the figure show the estimated composition of world population at various dates from 1920 through 1980, while the rim diagrams at the right illustrate the composition of the population increments in each of the intervening twenty-year periods. The areas of the pie diagrams are proportional to the size of total world population at successive dates. Each diagram contains a dotted area which indicates the estimated proportion of world population residing in agglomerations of 20,000 or more inhabitants. The areas of the diagrams outside the dotted section indicate the proportion of world population in rural and small-town regions. Within each of these categories, the darker segments represent the less developed regions and the lighter areas represent the more developed regions. The rim diagrams at the right of this figure illustrate the proportions of estimated increases in both the agglomerated and the rural and small-town components of world population during the period from 1920 to 1980. As can be clearly seen, the relative contribution of the less developed regions to increases in both components has risen in the successive periods and is likely to rise further. The proportion of rural and small-town population increases contributed by the less developed areas in every period is incomparably larger than the proportion contributed by the more developed regions. Since 1940, rural and small-town population in the more developed regions has increased by almost negligible amounts. The proportion of the agglomerated population increases contributed by the less developed countries was not as great as the contribution of the more developed regions during the 1920-1940 period. Since 1940, however, the proportion of agglomerated population increases contributed by the less developed areas has also exceeded the contributions of the more developed regions, and it is likely to exceed the latter to an increasing extent in the future.

As illustrated in the diagrams at the left of figure VII, only a quarter of the world's agglomerated population was in the less developed regions in 1920. By 1980, fully one half of the world's agglomerated population may be found in the less developed regions. Nevertheless, the major portion of the population in less developed regions (roughly three fourths) will then still reside in rural and small-town areas. This structure of population

settlement is rather similar to the composition of the more developed regions nearly half a century ago in 1920 when their rural and small-town population also represented about 70 per cent of their total population. Whereas the urbanization levels of the less developed regions in 1980 may be like those of the more developed regions were in 1920, economic development of a comparable level or type will probably not be attained by this circumstance. The mere fact that a much larger population is involved will force the development trends into different directions. The less developed regions will combine about seven times as many inhabitants in 1980 as did all the more developed regions in 1920.

During 1960-1980 alone, the increases in both agglomerated population and rural and small-town population in each of the less developed major areas are apt to exceed the corresponding increases which have been estimated for the entire 1920-1960 period, which was twice as long (see table 33). For purposes of comparison, the increases in these two population categories in the eight major areas during both of these time periods are also shown in figure VIII.

During all periods from 1920 to 1980, the estimated increases in the rural and small-town population of less developed regions account for more than one half of the entire growth of the world's total population, and even during 1980-2000, despite a much advanced urbanization, still nearly one half of the world's total population growth may accrue to that population category. In all four twenty-year periods from 1920 to 2000, more than one half of the world's growth in rural and small-town population is estimated to occur in South Asia.

While the absolute amounts of increase in the estimates or urban and rural population for many regions continue to rise to the end of the century, the rates of increase, relative to the increasing population sizes, are estimated to diminish with time in most instances. This implication is illustrated in the average annual rates, covering twenty-year periods, shown in table 34. Actual developments, of course, will differ in detail and will not be so smooth, but the implication of a gradual subsidence in the speed of change remains significant.

In the more developed regions, average annual rates of growth in total population, about 1 per cent per year or slightly less, may be of similar magnitude in the future as they have been in the past. This would be consistent with a gradual further slowdown of population growth in Europe and Japan while the growth of population in Northern America, the Soviet Union and Oceania continues at distinctly higher levels. This prospect would be consistent also with a slowdown in the growth of both their agglomerated and their rural and small-town populations. Agglomerated population has grown at annual rates of 2.2 per cent during 1920-1940, may grow at 2.0 per cent during 1940-1980, and 1.6 per cent in the past fifth of the century; the growth has been especially rapid in the Soviet Union during 1920-1940 and may still proceed at higher levels there than in other more developed major areas during the remainder of the century. In Europe, considerably urbanized already early in the century, agglomerated population has grown the slowest, and its further growth in future decades may average

Size and composition
of world population

1920

1940

1960

1980
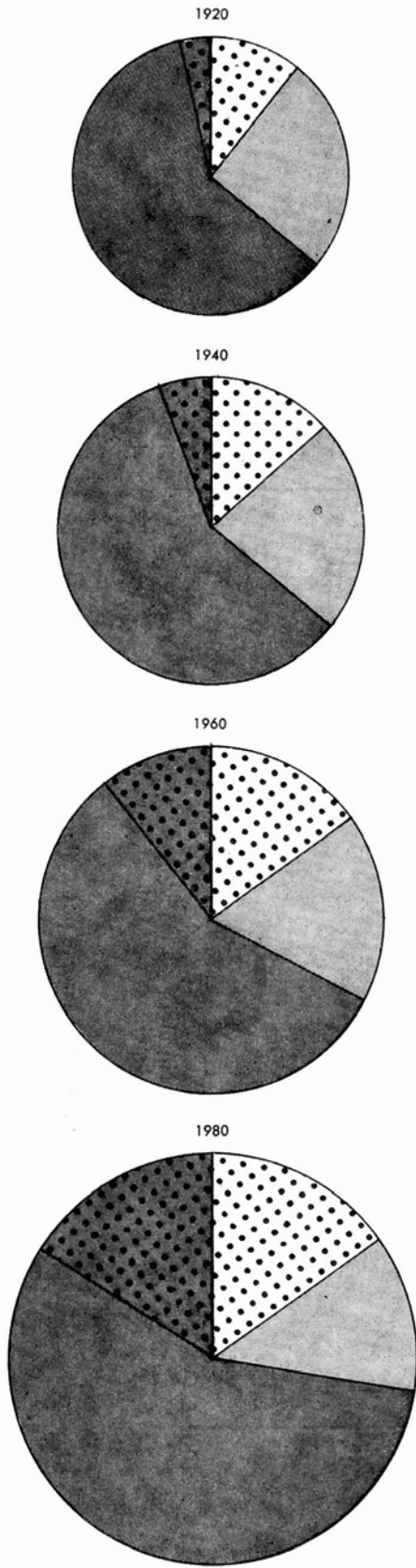
World population increments
and their composition

1920-1940

1940-1960

1960-1980

Agglomerated population
in more developed regions

Agglomerated population
in less developed regions

Rural and small-town population
in more developed regions

Rural and small-town population
in less developed regions
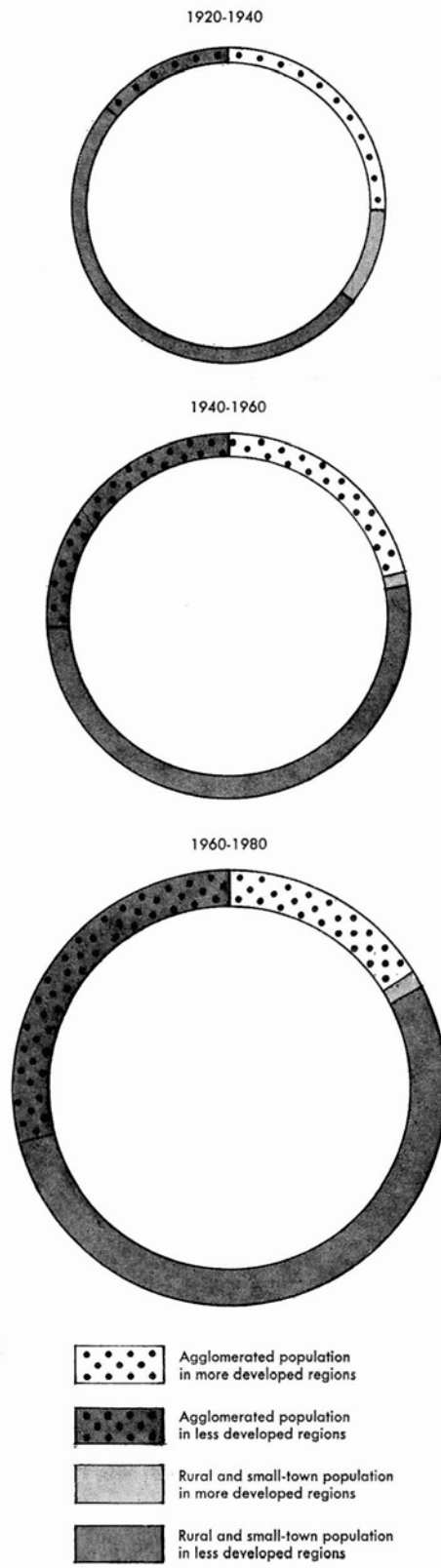
Figure VII. Size, composition and growth of world population in agglomerated localities (20,000 or more inhabitants) and in rural areas and small towns in more developed regions and less developed regions, 1920-1980

61

(millions)

1960-1980
1920-1960

Europe Northern   Soviet   Oceania   East   South   Latin   Africa
        America   Union   Asia   Asia   America

■ Increase in agglomerated population

□ Increase in rural and small-town population
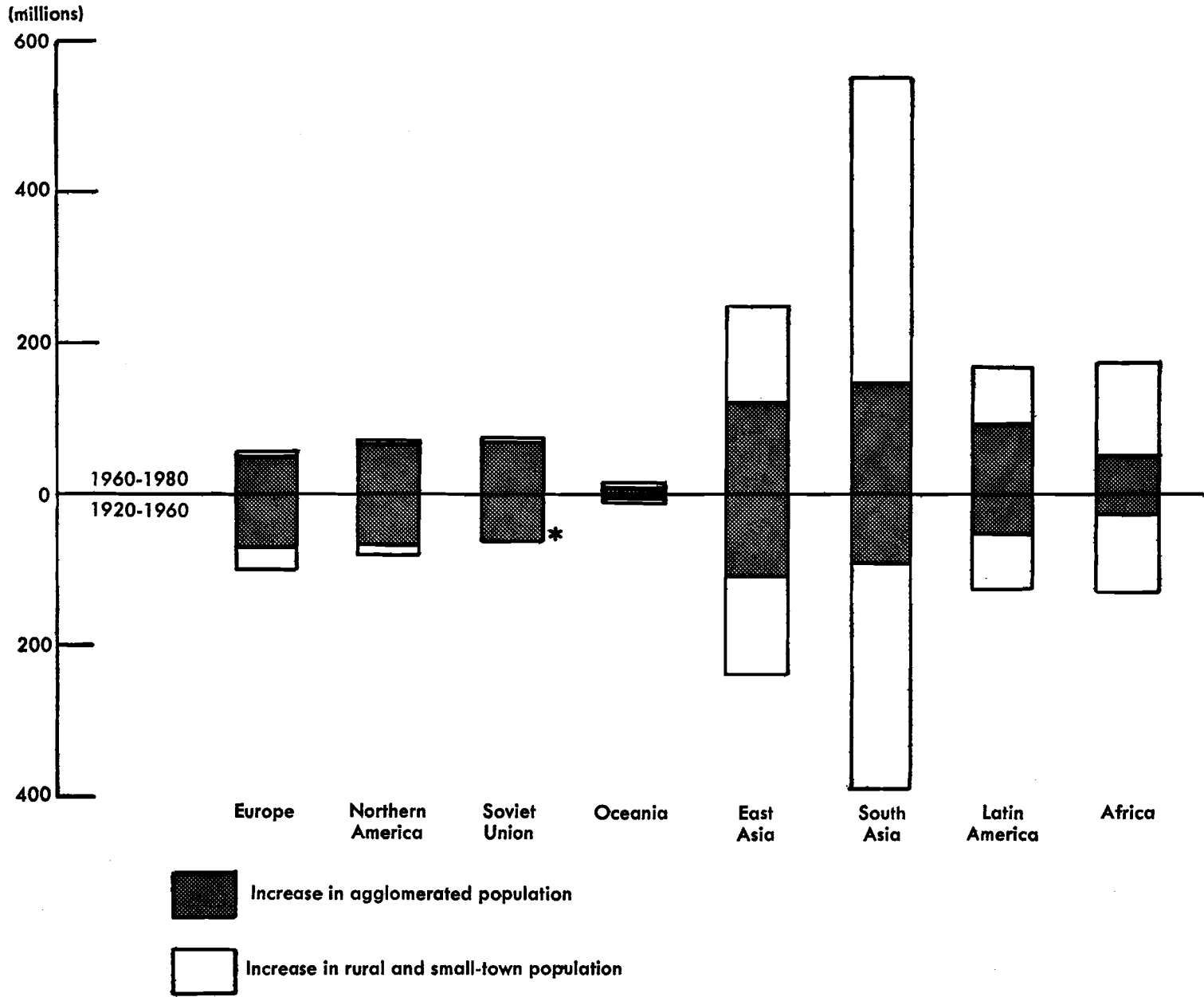
* Rural and small-town population decreased by 3 million.

Figure VIII. Increases in agglomerated and rural and small-town population in eight major areas, 1920-1960 and 1960-1980

Table 33. Estimated increases in total, agglomerated and rural and small-town population of the world,
and major areas in twenty-year periods from 1920 to 2000

(Millions)

Major area	1920-1940	1940-1960	1920-1960	1960-1980	1980-2000
Total population					
World total	435	696	1,131	1,327	1,794
More developed major areas	125	125	250	188	224
Europe	54	46	100	54	48
Northern America	28	55	83	63	92
Soviet Union	40	19	59	64	65
Oceania	3	5	8	7	9
Less developed major areas	310	571	881	1,139	1,570
East Asia	81	160	241	247	246
South Asia	140	248	388	550	745
Latin America	40	82	122	166	260
Africa	49	81	130	176	319
More developed regions	148	155	303	198	247
Less developed regions	287	541	828	1,109	1,547
Agglomerated population					
World total	165	328	493	594	983
More developed major areas	88	121	209	178	217
Europe	37	38	75	49	53
Northern America	19	48	67	62	78
Soviet Union	31	31	62	63	81
Oceania	1	4	5	5	6
Less developed major areas	77	207	284	415	767
East Asia	34	73	107	120	158
South Asia	24	67	91	148	302
Latin America	12	44	56	94	179
Africa	7	23	30	53	128
More developed regions	106	146	252	211	240
Less developed regions	59	182	241	383	743
Rural and small-town population					
World total	269	369	638	733	811
More developed major areas	37	4	41	9	8
Europe	17	8	25	5	−5
Northern America	9	7	16	1	16
Soviet Union	9	−12	−3	1	−6
Oceania	2	1	3	2	3
Less developed major areas	233	364	597	714	803
East Asia	47	87	134	127	88
South Asia	116	181	297	402	443
Latin America	28	38	66	72	81
Africa	42	58	100	123	191
More developed regions	42	9	51	7	7
Less developed regions	228	359	587	726	804

little more than 1.0 per cent per year. Growth in rural and small-town population, still significant during 1920-1940, has become negligible and may remain so in the future; the detailed projections imply a further appreciable growth in Northern America and Oceania (which includes other countries in addition to Australia and New Zealand), and decreases in Europe and the Soviet Union, but this outcome may be a result of the arbitrary methods of projection and not necessarily significant.

In the less developed regions, a great acceleration of population growth has occurred and may not yet have run its full course, but a slight subsidence is projected for the latter part of the century. For the combination of these regions, the average annual growth in total population is estimated as 1.1 per cent during 1920-1940, 1.6 per cent during 1940-1960, 2.2 per cent during 1960-1980 and 2.0 per cent during 1980-2000. The calculations show that it is possible that the growth of agglomerated population may already have passed its peak rate,[8] and that the rate of growth in rural and small-town population may pass its peak in the near future.[9] This includes the possibility that in East Asia the agglomerated popu-

[8] Compare the rate of 5.1 per cent for 1950-1960 (see table 11) with the rate of 4.1 per cent for the average of 1960-1980 shown in table 34.

[9] Compare the rate of 1.5 per cent for 1950-1960 (see table 11) with the rate of 1.8 per cent for the average of 1960-1980 shown in table 24.

Table 34. Estimated annual rates of growth in total, agglomerated and rural and small-town population, 1920-1940, 1940-1960, 1960-1980 and 1980-2000

Major areas	1920-1940	1940-1960	1960-1980	1980-2000
Total population				
World total	1.1	1.3	1.9	1.7
More developed major areas	0.9	0.8	1.0	1.0
Europe	0.8	0.6	0.6	0.5
Northern America	1.1	1.6	1.5	1.5
Soviet Union	1.1	0.5	1.3	1.2
Oceania	1.3	1.8	1.8	1.7
Less developed major areas	1.1	1.6	2.2	2.0
East Asia	0.7	1.1	1.4	1.1
South Asia	1.3	1.7	2.5	2.1
Latin America	1.9	2.5	2.9	2.6
Africa	1.5	1.8	2.5	2.7
More developed regions	1.0	0.9	1.0	0.9
Less developed regions	1.1	1.6	2.2	2.0
Agglomerated population				
World total	2.4	2.9	2.9	2.8
More developed major areas	2.0	1.9	1.9	1.6
Europe	1.4	1.1	1.2	1.0
Northern America	1.7	2.8	2.2	1.8
Soviet Union	5.5	2.6	3.0	2.3
Oceania	1.9	3.1	2.3	1.8
Less developed major areas	3.2	4.2	3.9	3.5
East Asia	3.1	3.5	3.0	2.4
South Asia	3.2	4.3	4.1	3.9
Latin America	3.5	5.2	4.4	3.8
Africa	3.5	5.0	4.6	4.5
More developed regions	2.2	2.0	1.9	1.6
Less developed regions	3.1	4.5	4.1	3.7
Rural and small-town population				
World total	0.8	0.9	1.4	1.2
More developed major areas	0.4	0.0	0.1	0.1
Europe	0.4	0.2	0.1	−0.1
Northern America	0.7	0.4	0.7	0.9
Soviet Union	0.3	−0.4	0.0	−0.2
Oceania	0.9	0.7	1.3	1.6
Less developed major areas	0.9	1.2	1.7	1.4
East Asia	0.5	0.7	0.9	0.5
South Asia	1.2	1.4	2.2	1.7
Latin America	1.6	1.6	2.1	1.4
Africa	1.3	1.4	2.1	2.2
More developed regions	0.4	1.0	0.1	0.1
Less developed regions	0.9	1.2	1.8	1.4

lation will grow no faster than, say, that in the Soviet Union, while East Asia's rural and small-town population will grow no faster than that of Northern America, for example, but it must be emphasized that the population estimates and projections for this major area of the world are founded on a very insecure basis. For Africa the population estimates are also very uncertain, and there calculations suggest that the rates of growth in both agglomerated and rural and small-town population in the decades to come will become the world's highest. In South Asia and Latin America it seems to be indicated that the agglomerated population will grow at more than 4 per cent per year during 1960-1980 but at somewhat lower rates in 1980-2000; and that the growth of rural and small-town population will still exceed 2 per cent per year for about twenty years, and then fall distinctly

below that level. On the whole, it appears that even the rural and small-town population of less developed regions will grow with almost the same speed as the agglomerated population of the more developed regions.

E. POPULATION TRENDS BY SIZE CLASS OF AGGLOMERATION, 1920-1980

Of all estimates compiled in this report, those on agglomerated population (localities with 20,000 or more inhabitants) are intended to be taken more seriously than others. Even here it is pointed out that their comparability can be greatly affected by the varied definitions of agglomeration boundaries used to measure areas under compact urban settlement. The estimates from 1920 to 2000 for this category are basic to the present report,

while the estimates for other categories have been partly derived from them.

It was considered reasonable to attempt an extension of estimates to the year 1980 for big-city population (500,000 and over), multimillion city population (2,500,000) and the population of super-conurbations (12,500,000 and over). It is not clear from observations of past trends in the population of cities of various sizes whether an increasing concentration in some of the biggest cities should also be expected in the future, if not also some countervailing trends causing the cities of intermediate-size groups to grow even faster.[10] Only very simple assumptions could be made from this highly speculative approach.

In rough conformity with many observations of the past, it was assumed that in future periods one half of the projected increases of agglomerated population (20,000 and over) will accrue to the big-city population (500,000 and over), and that this rule may conceivably hold in each region. It is probable that the future big-city population is thereby overestimated for some regions and underestimated for some others, but the sums of estimates for several regions combined may nevertheless be plausible.

To arrive at estimates of future population of cities containing, at such dates, at least 2,500,000 and at least 12,500,000 inhabitants, extrapolations from past trends were made from the 1920-1960 estimates for individual big cities (500,000 and over).[11] The future trend of any one of the big cities, simply extrapolated, may often be considerably misjudged, but compensating errors in the individual estimates may leave some plausibility in combined results for a growing number of cities with 2,500,000 or more inhabitants. As regards the super-conurbations (12,500,000 and more), of which there were two in 1960,[12] the crude calculations led to five cities surpassing this colossal size by the year 1980,[13] but this result should be regarded as strictly accidental. The calculations disregard the peculiar urban development in the region of London[14] and other special circumstances which may affect the growth of cities in various ways,

possibly accelerating it in some and slowing it down in others. That exactly these five cities, and not perhaps some others, would be of such size in 1980 is quite uncertain.[15] With intensifying transports and other connexions it is possible that new super-conurbations will emerge also in other areas where no single city at the present time is exceedingly large.[16]

Because of the world's varied economic history since the rise of the mercantilist empires, it appears pertinent to combine the estimates of urban populations by size class according to three major portions of the world, namely, Europe, more developed regions outside Europe and the less developed regions. Roughly speaking, the three sets of regions follow a succession of stages in the recency of modern urban development, that in Europe being the oldest and that in less developed regions the most recent. Some observations to this effect have already been made in section H of chapter II (see also table 17). The results of the aforementioned crude calculations are now combined in this form in table 35. Estimates for individual component regions in these three groups are listed in annex VI.

Observing, first, the world totals, we note that the world's urban population may become nearly as large in 1980 (1,780 million) as was the world total in 1920 (1,860 million). The fifty-nine multimillion cities calculated for 1980 may then have nearly as much population (351 million) as was the world's entire urban population in 1920 (360 million). If allowance is made for an extended area of Greater London, there may perhaps be six super-conurbations in the world in 1980 with a combined population of about 100 million, which is almost as much as was the population of all the world's eighty-three "big cities" in 1920 which then totalled an estimated 107 million. The growth of world population in each of these size categories between 1920 and 1980 is illustrated in figure IX.

In every population category shown in table 35 one can note a progressive shrinkage in the world's share held by Europe and a rapid rise in the share of the less developed regions, while the proportion held by more developed regions outside Europe remains more nearly constant.

For instance, Europe had 42 per cent of the world's urban population in 1920, 25 per cent in 1960 and in 1980 it may have 17 per cent of that total. Meanwhile, the less developed regions' percentage share has risen

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[10] See the discussion in sections G and H of chapter II.

[11] Where possible or reasonable, it was assumed that each city would grow during 1960-1980 at the average annual rate estimated between 1920 and 1960. Where estimates for as early as 1920 had not been made, or where growth during part of the past period was irregular, some other plausible rate of growth was substituted.

[12] New York (including north-eastern New Jersey) and Tokyo (including Yokohama).

[13] Tokyo, New York, Los Angeles, Shanghai and Mexico City. Also London, if the combined agglomeration is considered to include urbanized areas situated immediately outside the green belt. (For a comparison of recent population data for London as a wider region, refer to chapter II, footnote 15).

[14] In view of its planning history, the conurbation of London is defined as that contained within the green belt, urbanized areas outside that belt being regarded as "overspill". Considering the recent rapid growth of urbanized areas in the overspill zone, it is possible that a wider urbanized area of London may also be defined in the future. The comparison of maps and data for wider areas surrounding London (chap. II, footnote 15) makes it possible to estimate the combined urbanized-area population of 1960 as roughly 11 million. On this basis, one may extrapolate a total somewhat larger than 13 million for 1980 as the combined population of urbanized areas of the conurbation and its overspill.

[15] The reader may form his own judgement of the accidental results of extrapolations to 1980. As extrapolated, the world's twelve largest agglomerations would then be the following: Tokyo (24.4 million); New York (18.5 million); Los Angeles (17.3 million); Shanghai (14.0 million); Mexico City (12.9 million); São Paulo (11.8 million); Buenos Aires (11.7 million); Moscow (10.8 million); Calcutta (10.4 million); Paris (9.4 million); Rio de Janeiro (8.8 million) and London (8.7 million). Including the overspill, the population of London in 1980 might also be estimated as more than 13 million. More accurate estimates would depend on detailed study of each of these cities, their surroundings and numerous factors affecting their growth.

[16] This might happen, for instance, through a coalescence along major transport arteries among numerous big cities of north-western Europe; in that instance, a super-conurbation may eventually spread across national boundaries.
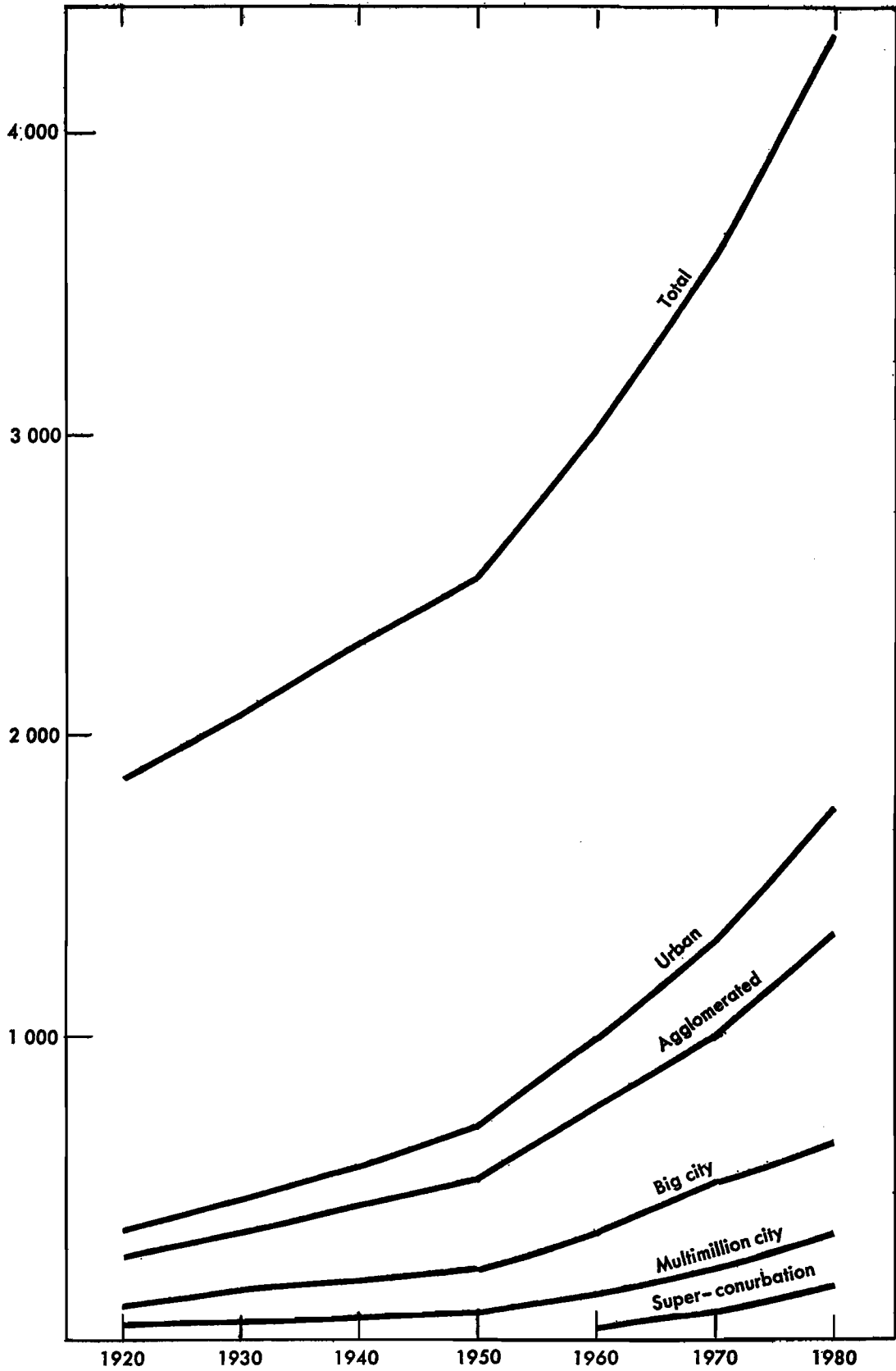
Figure IX. Growth of world total population and urban population in various categories, 1920-1980

Table 35. Total, urban, agglomerated, big-city and multimillion city population of the world and three major portions, 1920, 1940, 1960 and 1980

(Rough estimates, in millions)

World portion	1920	1940	1960	1980
Total population				
World total	1,860	2,295	2,991	4,318
Europe	325	369	425	479
Other more developed regions .	348	442	551	715
Less developed regions	1,187	1,474	2,015	3,124
Urban population				
(as nationally defined)				
World total	360	570	990	1,780
Europe	150	200	245	310
Other more developed regions .	110	185	335	540
Less developed regions	100	185	410	930
Agglomerated population (20,000				
inhabitants and over)				
World total	267	432	761	1,354
Europe	113	150	188	237
Other more developed regions .	85	154	262	424
Less developed regions	69	128	311	693
Big-city population (500,000				
inhabitants and over)				
World total	107	180	352	665
Europe	52	58	81	106
Other more developed regions .	41	77	140	237
Less developed regions	14	35	131	322
Multimillion city population (2,500,000				
inhabitants and over)				
World total	36	75	142	351
Europe	20	23	24	40
Other more developed regions .	16	45	74	146
Less developed regions	...	7	44	165
Population of super-conurbations				
(12,500,000 inhabitants and over) [a]				
World total	...	...	28 [b]	87 [c]
Europe	...	...	...	... [a]
Other more developed regions .	...	...	28 [b]	60 [d]
Less developed regions	...	...	...	27 [e]

[a] Estimates for 1980 may be merely accidental results of the method of calculation.

[b] New York and Tokyo.

[c] Not including London. Including its overspill, London may then constitute a super-conurbation with more than 13 million inhabitants.

[d] Tokyo, New York and Los Angeles.

[e] Shanghai and Mexico City.

from 28 in 1920 to 41 in 1960 and by 1980 it may amount to 53.

Again, Europe had 49 per cent of the world's big-city population in 1920, 23 per cent in 1960 and in 1980 it may have 16 per cent. Of the world's big-city population, 13 per cent were in the less developed regions in 1920, 37 per cent in 1960 and in 1980 that proportion may be 48 per cent.

The position of Europe relative to other more developed regions is declining most rapidly in the larger cities, especially in the multimillion cities. In 1960, the more developed regions outside Europe had 30 per cent more total population than Europe, 39 per cent more agglomerated population and 73 per cent more big city population

(cities with 500,000 or more inhabitants). The multimillion population (cities with 2,500,000 or more inhabitants) of the more developed regions outside Europe was fully three times the multimillion population of Europe.[17]

These shifts would occur despite the fact that in Europe alone the urban, or big-city, population in 1980 may have grown twice as large as it was in 1920. In those sixty

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[17] One of the reasons why few European cities are exceedingly large, though many are large, is the historic division of Europe's economic space by numerous separate national entities. Policies of economic decentralization within national entities, whether in Europe or elsewhere, might affect city size distributions similarly.
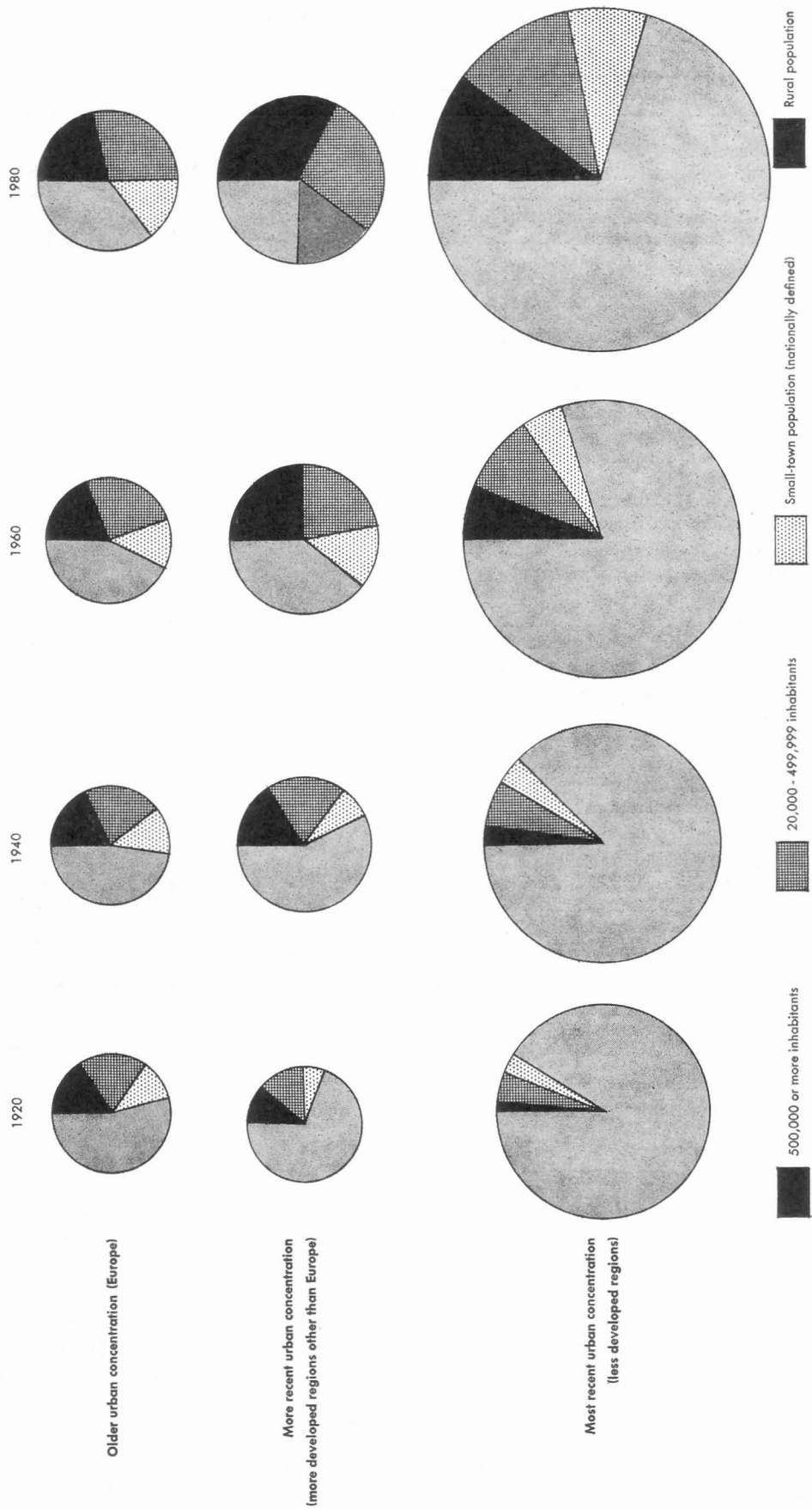
Figure X. Percentages of urban and rural population, 1920-1980, classified by recency of urban development and size of locality

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years, however, the urban and big-city populations in more developed regions outside Europe would have grown by 1980 to five times their 1920 size; and in less developed regions the growth in urban population may turn out to be ninefold and that in big-city population more than twentyfold. Similar observations can also be made for some of the other population categories.

The proportions of total population in urban localities of various sizes in each of the three sets of regions can be judged from an inspection of figure X. Europe was most urbanized in 1920, its level of urbanization has been rising and it will probably rise further. In the combination of other more developed regions, the level of urbanization was below that of Europe in 1920 but has advanced more rapidly, surpassing the European level in 1960, and it is likely to surpass Europe to an increasing extent. The total population of more developed regions other than Europe has been, and probably also will be, growing faster than that of Europe, hence the cities in those regions grow very much faster than European cities.

The spread of multimillion cities of 2,500,000 or more inhabitants throughout the three regions of the world is illustrated in figures XI and XII. This is a subject of special interest since agglomerations of this size have probably never existed until modern times.[18] Even in 1920 there were only seven such cities in the entire world: four in Europe, three in the more developed regions outside Europe and none in the less developed regions. The first such city was Greater London which attained the 2,500,000 level during the decade of the 1850s. Greater Paris and Greater Berlin reached this dimension by the turn of the century. The only city outside Europe which had reached the multimillion level by the turn of the century was New York and, depending on how the agglomeration might be defined, came to surpass London at sometime early in the present century.

By 1940, the number of multimillion cities in the more developed regions outside Europe had grown to nine, while the number in Europe remained four. The less developed countries had acquired only two multimillion cities by this date. By 1960, the less developed regions had come to rival the more developed regions outside Europe with respect to the number of multimillion cities. Each of these regions had eleven multimillion cities, while Europe still remained at the 1920 level of only four multimillion

cities. The population residing in these cities was still largest in the more developed regions outside Europe (74 million inhabitants), while in the less developed regions, where such sizes have been attained only recently, there were then 44 million inhabitants in multimillion cities. By 1980, however, the population residing in multimillion cities in the less developed regions may reach 165 million, which is in excess of the multimillion population of 147 million as extrapolated for the more developed regions outside Europe. The number of multimillion cities in the less developed regions will then also be the largest. According to rough calculations, those regions may then have thirty-one such cities, the more developed regions outside Europe may have about twenty and in Europe the number may then have risen to eight.

It is reiterated that in this study it has not been possible to distinguish the possibly large shifts and variations within the rural habitat, whether in large or small villages, isolated farms and so forth. Because of the interdependence of all human environments, and the certainty of large growth still bound to occur in the rural population of less developed regions, the omission of this aspect in the present report leaves a gaping deficiency in a study of the entire pattern of human settlements. The investigation of rural forms of habitation still merits every possible encouragement.

This broad overview of apparent trends among grouped regions, of course, also leaves out of account the wide variations occurring among individual regions and countries. The reader seeking more detailed comparisons is referred to the estimates presented in annex V.

F. FUTURE URBAN AND RURAL POPULATION AS NATIONALLY DEFINED

It must also be restated that "urban" and "rural" population, as nationally defined, are somewhat elusive quantities owing to frequent redefinitions related to qualitative changes occurring in settlements of diverse type. Nevertheless, the prevailing interest in these concepts, of long historic tradition, made it advisable at least to put forth a sequence of crude estimates of urban and rural population reaching backwards to 1920 and forward to the end of the century. It is assumed that prevailing definitions will be substantially maintained.[19]

The future estimates of the world's urban and rural population as nationally defined should be regarded with even greater caution than the foregoing projections of agglomerated populations. Not only are the magnitudes and tempo of future urbanization in doubt but it is also dubious whether current definitions will remain appropriate where large changes occur in the characteristics and modes of living of people in localities of every size. New requirements will be reflected by changes in the territorial extent or administrative powers of local units. As in the past, urban and rural localities will again be redefined, taking into account the changing relevance of

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[18] It is now generally agreed that cities of antiquity never grew to such size. Cities like Rome and Byzance (now Istanbul) may have attained, or even exceeded, 1 million inhabitants during limited periods of time. It is possible that at certain times some cities in India, Cambodia and Indonesia were rather large. A city (now Hangchow) as large as 3 million was reported by Marco Polo in his travels in China during the thirteenth century, but the estimate may have erred on the generous side. Tenochtitlan (now Mexico City) is believed to have been impressively large prior to the Spanish conquest. In the eighteenth century the world's two largest cities, most probably, were Edo (now Tokyo) and Peking. London may have become the world's largest city by 1830 when its population surpassed 1.4 million. On this subject see, for instance, Wolf Schneider, *Babylon Is Everywhere* (New York, McGraw-Hill Book Company, Inc., 1963) and Adna F. Weber, *The Growth of Cities in the Nineteenth Century* (Ithica, Cornell University Press, 1963). Also France, Institut national de la statistique et des études économiques, *Annuaire statistique de la France*, 1954 (Paris).

[19] Actually this is to be doubted in countries and regions where, through a multiplication of functions, many rural settlements of modest size acquire increasingly urban characteristics.
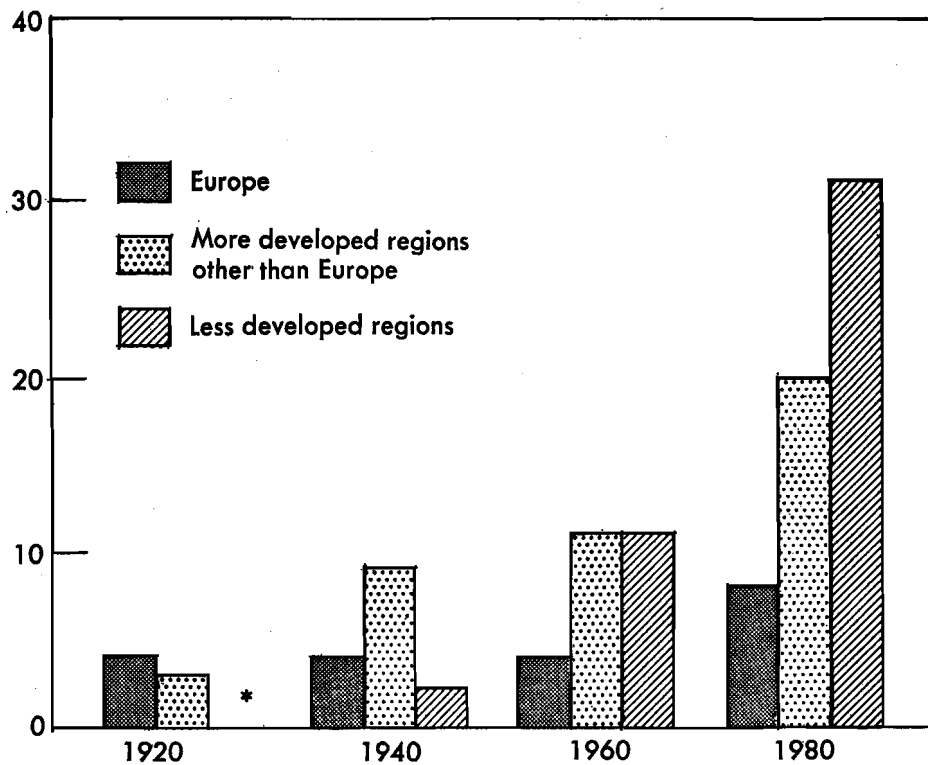
* In 1920 there were no multimillion cities in the less developed regions.

Figure XI. Number of multimillion cities (2,500,000 or more inhabitants)
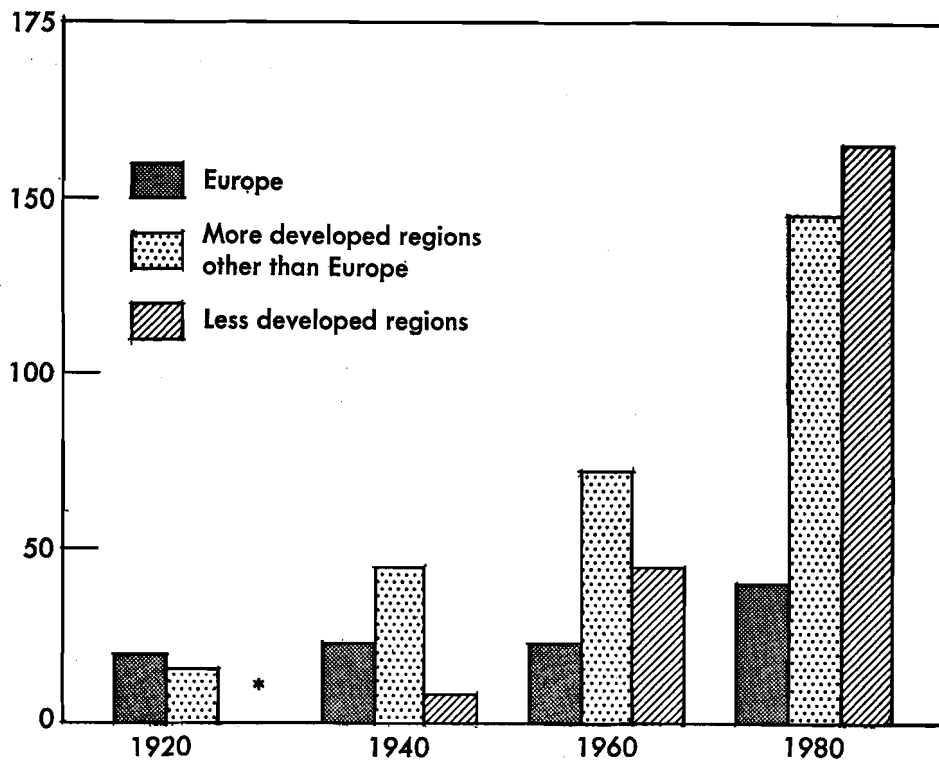
* In 1920 there were no multimillion cities in the less developed regions.

Figure XII. Population residing in multimillion cities (2,500,000 or more inhabitants)
(Millions)

Table 36. Crude projections of the urban population, as it might be defined in each country, for the world and major areas, 1960-2000

(Millions)

Major area	1960	1970	1980	1990	2000
World total	990	1,330	1,780	2,370	3,090
More developed major areas	500	610	735	870	1,010
Europe	245	280	310	345	375
Northern America	140	175	215	255	310
Soviet Union	105	140	190	250	300
Oceania	10	15	20	20	25
Less developed major areas	490	720	1,045	1,500	2,080
East Asia	180	245	325	420	520
South Asia	155	235	350	525	750
Latin America	105	160	245	360	510
Africa	50	80	125	195	300
More developed regions	580	700	850	1,010	1,160
Less developed regions	410	630	930	1,360	1,930

Table 37. Crude projections of the rural population, as it might be defined in each country, for the world and major areas, 1960-2000

(Millions)

Major area	1960	1970	1980	1990	2000
World total	2,000	2,250	2,545	2,800	3,020
More developed major areas	355	335	315	280	255
Europe	180	175	170	160	150
Northern America	60	50	50	50	45
Soviet Union	110	105	90	65	55
Oceania	5	5	5	5	5
Less developed major areas	1,645	1,915	2,230	2,520	2,765
East Asia	615	665	715	750	765
South Asia	700	860	1,055	1,240	1,400
Latin America	110	125	135	140	130
Africa	220	265	325	390	470
More developed regions	395	380	345	310	280
Less developed regions	1,605	1,870	2,200	2,490	2,740

the traditional concepts. The effects of redefinition, of course, cannot be foreseen in advance.

In view of these great uncertainties, the estimates of future urban and rural population as nationally defined are derived from those of future agglomerated population by a simple device only. It is assumed that estimated urban and estimated agglomerated population will remain in a fixed proportion or, in other words, that the implied "small-town population" will be a constant proportion to that of localities with 20,000 or more inhabitants. The strictly rural population will then be the residual obtained after subtraction of projected urban population from the projected total population. With the limited knowledge at hand, this view may be as plausible as any other.

Rounded to the nearest 5 million, the estimates so obtained are those shown in tables 36 and 37. Those estimates can be related to the ones discussed in chapter I,

and to the crude working figures shown in tables 23 and 25 of chapter III.

Roughly speaking, the figures suggest that in the course of forty years the world's urban population may treble, from 1 billion to an eventual 3 billion. The world's rural population, meanwhile, may increase by one half, from 2 billion in the year 1960 to 3 billion in the year 2000. One third urban in 1960, the population of the world may be one half urban by the end of the century.

Such developments might be consistent with a doubling of the urban population of more developed regions (from 580 million in 1960 to 1,160 million in 2000), a nearly fivefold growth of the urban population of less developed regions (from 410 million in 1960 to 1,930 million in 2000), an increase by two thirds in the rural population of less developed regions (from 1,605 million in 1960 to 2,740 million in 2000), and a decrease by more than one quarter in the rural population of more developed

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Table 38. Crude estimates of numbers of urban and rural inhabitants per square kilometre of land, 1920, 1960 and 2000, in the world and major areas

Major area	Urban inhabitants per square kilometre			Rural inhabitants per square kilometre		
	1920	1960	2000	1920	1960	2000
World total	3	7	23	11	15	22
More developed major areas . .	4	9	18	.6	6	4
Europe	30	50	77	36	36	31
Northern America	3	6	14	3	3	2
Soviet Union	1.1	5	13	6	5	2
Oceania	0.6	1.2	3	0.5	0.7	1
Less developed major areas . . .	2	6	27	11	21	36
East Asia	4	15	44	43	52	65
South Asia	3	10	49	28	46	92
Latin America	1.0	5	25	3	5	6
Africa	0.3	1.7	10	4	7	16
More developed regions	4	10	19	7	6	5
Less developed regions	1.4	5	26	15	22	37

regions (from 395 million to 280 million). Needless to say, these orders of magnitude are very speculative.[20] Because of the assumptions made, these estimates imply the same rates of increase of urban population as the rates of increase of agglomerated population discussed in table 34. On the other hand, they imply lower rates of increase, or greater rates of decrease, in the residual strictly rural population. The assumptions are too debatable to warrant a detailed comparison of the implied rates of change.

It remains of interest nevertheless to consider in broad outline the changing prevalence of urban and rural inhabitants over the face of the land. The number of estimated urban, and rural, inhabitants per square kilometre of land area in the years 1920, 1960 and 2000 are brought together in table 38.[21]

In relation to land area, urban inhabitants were three times as prevalent in more developed than in less developed regions in 1920, still almost twice as prevalent in 1960, but are likely to become more prevalent in the less developed regions than in the more developed regions by the end of the century.

In less developed regions, rural inhabitants were twice as prevalent per unit of land, as compared with more

developed regions, in 1920, and nearly four times as prevalent in 1960. By the year 2000, the prevalence of rural inhabitants in relation to land in the less developed regions may be seven times that in the more developed regions.

These comparisons leave out of account the greatly varied nature of the terrain. The arctic and subarctic wastelands of the Soviet Union and Canada, for instance, are vast, while in Europe wastelands are much less extensive. In 1920 Europe had 30 urban inhabitants and 36 rural inhabitants per unit of land area. Europe was favoured not only by climate and soil but also by long-established commercial advantages in relation to the rest of the world and an already considerable industrialization with corresponding economic and social infrastructures. Figures for the less developed regions combined in the year 2000 may seem comparable with those of Europe in 1920, namely, 26 urban and 37 rural inhabitants per square kilometre of land. The less developed regions, however, include the extensive mountains, deserts and tropical jungles of inner Asia, Africa and South America Nor are they likely to match very soon the relative commercial, industrial and other advantages which Europe had accumulated by the early part of this century. The more hospitable zones of the less developed regions, accordingly, will have to be utilized far more intensively than Europe — still drawing on the resources of other parts of the world — was utilized in 1920. It is obvious that the future circumstances and modes of economic organization in the less developed regions will have to differ considerably from those which have functioned successfully in the more developed regions in the past.

[20] Whether such a large and rapid growth in the urban population of less developed countries can be sustained is questionable. In addition to considerations of sheer quantity, discussed in section D above, it must be noted that national concepts of urban localities also pertain to certain qualitative features. The minimal qualities of "urbanism" will not be assured unless the growth of places of settlement is also accompanied by corresponding minimal investments in urban infrastructure and services. This becomes then a question of availability and uses of economic resources. Peripheral shanty-towns, for instance, may or may not be regarded as urban depending on their condition and the viewpoints adopted. Mention has also been made of the "re-ruralization" of stagnant small towns in the process of their decline in urban functions and concomitant loss of urban characteristics.

[21] The land areas are those shown in table 2 (chap. I). It will be recalled that vast parts of some of the major areas consist of inhospitable land not favourable to substantial human settlement.

G. URBANIZATION LEVELS, 1920-2000

Since, in the national statistics, urbanization levels are measured according to current definitions, the trend in these levels, according to the foregoing calculations, is of some interest. It will be understood that these estimates

Table 39. Estimated percentages of urban population as nationally defined, in the total population of the world and major areas, 1920, 1940, 1960, 1980 and 2000

Major area	1920	1940	1960	1980	2000
World total	19	25	33	46	51
More developed major areas	40	48	59	70	80
Europe	46	53	58	65	71
Northern America	52	59	70	81	87
Soviet Union	15	32	49	68	85
Oceania	47	53	64	75	80
Less developed major areas	10	14	23	32	43
East Asia	9	13	23	31	40
South Asia	9	12	18	25	35
Latin America	22	31	49	60	80
Africa	7	11	18	28	39
More developed regions	39	47	60	71	81
Less developed regions	8	12	20	30	41

are unavoidably very crude, and that the definitions themselves are variable in time. Nevertheless, the broad sweep of developments, as estimated in table 39, may serve to indicate the rates of change in human settlement patterns.

In the traditional terms of measurement, the world's population was about one fifth urban in 1920, about one quarter urban in 1940 and about one third in 1960. By the end of the century, one half of the world's population may be urban.

In the more developed regions, two fifths of the population was urban in 1920, three fifths in 1960 and by the year 2000 the proportion may have risen to four fifths.

Perhaps one twelfth of the population of less developed regions was urban in 1920 and about one fifth in 1960. By the year 2000, two fifths of the population of less developed regions may be urban, a proportion as high as that in the more developed regions eighty years previously. But owing to the vastly increased size of the total population, if not also the intervening technological, cultural and political changes, future circumstances in the less developed regions will be quite unlike the earlier circumstances of the more developed regions in many respects.

It should be remembered that the broad averages for major areas in table 39 conceal important internal variations among component regions and countries and these may sometimes be of greater significance for national purposes. More detailed estimates of urbanization levels are presented for twenty-one component regions in annex VI, table 56 and for individual countries in annex IV, table 45. Because of uncertainties of estimation, a more detailed comparison of possible changes in urbanization level may preferably be carried out in terms of agglomerated population, i.e., the proportion of total population contained in localities with 20,000 or more inhabitants.

The greater detail of those estimates indicates some regional diversity of urbanization levels within each major area. Since the rise of urbanization level is apt to accelerate where it is still low and to slow down where

it is already high, the regional diversity may attenuate somewhat, but it will still be largely in evidence when this century draws to a close.

Within Europe, the northern region has been, and probably will continue to be, the most urbanized, followed by the western region. Partly owing to the effects of the Second World War, the urbanization level of eastern Europe has fallen behind that of southern Europe, though previously levels in the two regions were nearly alike. The trends suggest that urbanization will continue to advance rapidly in southern Europe, approaching the level of western Europe in future decades.

Northern America's urbanization level was comparable to that of western Europe in 1920 and that of northern Europe in 1960. Advancing rapidly, it may exceed considerably the European levels towards the century's end. Australia and New Zealand have been, and may continue to be, even more highly urbanized than Northern America. Starting from a rather low level, urbanization has advanced with outstanding rapidity in the Soviet Union and, according to the projected trend, may come to exceed the level of western Europe by the year 2000. Another region with exceptionally rapid urbanization has been Japan, estimated to have been as much urbanized as eastern Europe in 1920, and almost as much as western Europe in 1960, with a considerable further rise to be expected. Temperate South America is one more region of high and rapidly rising urbanization, with levels comparable to those of Northern America.

Aside from Japan, urbanization now progresses very speedily in the fast-growing populations of Korea and China (Taiwan). Starting in 1920 from a level as low as that of the East Asian mainland, the urban segment of these East Asian populations has risen fast and may soon reach proportions comparable with those observed in Europe.

In the large populations of mainland East Asia, middle South Asia, and South-East Asia, the considerable growth of cities has not yet resulted in high levels of urbanization. As projected, urbanization levels in these three populous regions may double between 1960 and

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the year 2000, by which time they may be as high as they were in Japan in 1920.

In South-West Asia, the urbanization level underwent a temporary setback shortly after 1920, partly owing to the emigration of urban Greeks from Turkey, but recently it has shown a rapid rise which is likely to continue. At a somewhat higher level, this rise is being paralleled by the considerable growth of cities in northern Africa. While remarkable, the tempo of urbanization in these two regions is being exceeded by a faster growth of cities in southern Africa and in the less developed regions of Latin America.

Considering how low has been the urbanization level in Tropical Africa until not long ago, the more recent

upsurge of city growth in this region, when projected, leads to a rapid multiplication of urban inhabitants and, by the century's end, possibly to an appreciable level of urbanization.

H. REDISTRIBUTION OF THE WORLD'S URBAN AND RURAL POPULATION, 1920-2000

The differences in regional growth rates will continue to shift the proportions of the world's urban and rural population contained in each area. What will happen cannot be definitely predicted, but a continuation of recent shifts, as now estimated, can lead to results as shown in table 40. The figures are in terms of the rough

Table 40. Percentages of world's total, urban and rural population (conforming to national definitions) in the world and major areas, estimated for 1920, 1940, 1960, 1980 and 2000 (rough figures)

Major area	1920	1940	1960	1980	2000
Total population					
World total	100.0	100.0	100.0	100.0	100.0
More developed major areas	32.5	31.8	28.5	24.1	20.7
Europe	17.5	16.5	14.2	11.1	8.6
Northern America	6.2	6.3	6.6	6.1	5.8
Soviet Union	8.3	8.5	7.2	6.4	5.8
Oceania	0.5	0.5	0.5	0.5	0.5
Less developed major areas	67.5	68.2	71.5	75.9	79.3
East Asia	29.7	27.6	27.1	24.1	21.1
South Asia	25.3	26.6	27.7	32.6	35.2
Latin America	4.8	5.7	6.5	8.8	10.4
Africa	7.7	8.3	8.8	10.4	12.6
More developed regions	36.2	35.8	32.7	27.7	23.6
Less developed regions	63.8	64.2	67.3	72.3	76.4
Urban population					
World total	100	100	100	100	100
More developed major areas	67	62	51	41	33
Europe	42	35	25	17	12
Northern America	17	15	14	12	10
Soviet Union	7	11	11	11	10
Oceania	1	1	1	1	1
Less developed major areas	33	38	49	59	67
East Asia	14	15	18	18	17
South Asia	11	13	15	20	24
Latin America	5	7	11	14	16
Africa	3	3	5	7	10
More developed regions	72	68	59	48	38
Less developed regions	28	32	41	52	62
Rural population					
World total	100	100	100	100	100
More developed major areas	25	22	18	13	9
Europe	12	10	9	7	5
Northern America	4	4	3	2	2
Soviet Union	9	8	6	4	2
Oceania[a]	0	0	0	0	0
Less developed major areas	75	78	82	87	91
East Asia	32	32	31	28	25
South Asia	29	31	35	41	46
Latin America	5	5	5	5	4
Africa	9	10	11	13	16
More developed regions	28	25	20	14	9
Less developed regions	72	75	80	86	91

[a] Figures of the order of 0.3 per cent of world total.

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estimates of urban and rural population in conformity with national definitions, hence the percentages for these two categories are rounded to the nearest unit.[22] For better visualization of the changing shares of major areas in the urban and rural world totals, the same data have also been used in drawing figure XIII.

The percentage shares in the world's total population are based on more carefully constructed estimates and projections, and these are shown with an additional decimal. The diminishing share of more developed regions in the world's total population can be noted, 36.2 per cent in 1920, 32.7 per cent in 1960 and perhaps 23.6 per cent in the year 2000. The population of the less developed regions, accordingly, is in the increasing majority.

In 1920, the more developed regions contained 72 per cent of the world's urban population and the less developed regions, 28 per cent. The balance has already shifted so much that in 1960 the less developed regions contained 41 per cent of the world's urban inhabitants, and it is possible that at the century's end only 38 per cent of the urban population of the world will be in more developed regions, while 62 per cent will be in less developed regions. The world's share of urban population held by Europe shrinks most conspicuously, from 42 per cent in 1920 to 25 per cent in 1960 and — though still estimated to grow considerably in absolute numbers — to only 12 per cent in the year 2000. In South Asia the share may rise from 11 per cent in 1920 to 24 per cent in 2000; in Latin America from 5 per cent to 16 per cent, and in Africa from 3 per cent to 10 per cent.

In 1920, the more developed regions contained 25 per cent of the world's rural population and the less developed regions comprised 75 per cent. Already by 1960 the disparity had widened to a ratio of 20 per cent and 80 per cent, and it is possible that in the year 2000 only 9 per cent of the world's rural settlers are to be found in the more developed regions, as compared with 91 per cent in the less developed regions. The increasing proportion of South Asia in the world's rural population has already been commented on and, as estimated here, this part of the world may come to hold 46 per cent of the world's people settled in rural areas by the century's end. The world proportion of rural inhabitants held by Africa also has risen and may rise more conspicuously in the future.

The practical implications of this comparison, however, are far from clear. Because of their more rapid growth, it appears very unlikely, on the whole, that either urban or rural communities of the less developed regions can develop in the same fashion as did those of the more developed regions. Developmental capital would have to be invested at far higher rates in precisely those areas where the proportionate investments needed even for the mere maintenance of present living standards, in a fast-growing population, would also have to be much greater. Accordingly, it will be much harder to set aside the needed additional investment capital in those eco-

nomies whose present equipment is also meagre. Development will have to take different forms from those now prevalent in the more advanced regions. The qualitative differences in modes of living between more developed and less developed regions, whether in their urban or rural areas, are already very wide and they may grow even further apart. It is doubtful whether standards derived from the past experience of presently developed regions can provide many useful points of reference for future developments elsewhere.

I. THE CHANGING HUMAN HABITAT

To summarize, this report presents estimates of urban population in various categories, and of rural population without a further specification, for a time period from 1920 to the year 2000. This length of time may be encompassed by the life of an individual man. While the estimates have varying margins of error and incongruities of definition, they demonstrate convincingly a vast transformation of the human habitat over the entire face of the earth. Those now in their active years were born in an economic, social, physical and cultural environment which differs enormously from the one they may still live to see. They were taught by teachers who had been raised in a world whose features are now fading rapidly; and they are called upon to instruct a new generation whose future living conditions are still shrouded in mystery. Basic human nature remains the same, but the necessary adaptations between man and his increasingly man-made environment are now changing with a greater speed than ever before. One may question whether, with such rapid rates of change, time suffices to draw lessons from experience and still apply them with a practical outcome that can be acceptable in terms of an authentic human significance.

The magnitudes and momentum revealed by the estimates in this report make it probable that phenomena of the changing settlement pattern will have to be redefined whenever new aspects gain dominance. Wider regional concepts, such as "megalopolis", may have to be measured and studied more clearly than could so far be done. The structure of settlement and land use within the large agglomerations will have to be surveyed. At the other end of the scale, and this can have even greater importance in the less developed regions, we are still mostly ignorant of the prevailing forms and trends of rural settlement. Finally, the interdependence among settlements of every size, function or type, and among regions in which different settlement patterns prevail, will become a subject of increasing importance and complexity.

A fundamental question raised by the upsurge of urbanization is the supply of food. In most of history, rural settlers produced only small food surpluses in addition to their bare subsistence. In order to support a non-agricultural urban minority, agricultural surpluses were at times exacted by forceful means. Low agricultural productivity thus set upper limits to the attainable levels of urbanization, even though total land resources were then more abundant. A transition from subsistence agriculture to commercial agriculture is required to provide food supplies for urban consumers as well as

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[22] Estimates of world distribution in terms of agglomerated population and rural and small-town population may be derived from data provided in annex VI.

MORE DEVELOPED MAJOR AREAS*

A Europe
B Northern America
C Soviet Union
D Oceania

LESS DEVELOPED MAJOR AREAS*
E East Asia
F South Asia
G Latin America
H Africa

URBAN POPULATION

EUROPE

MORE DEVELOPED MAJOR AREAS OTHER THAN EUROPE

LESS DEVELOPED MAJOR AREAS

RURAL POPULATION

1920   1940   1960   1980
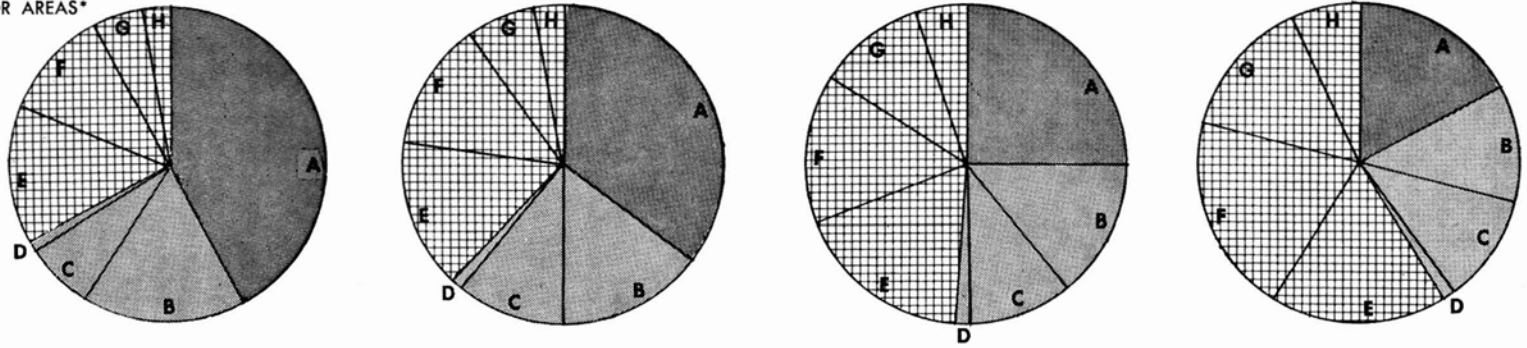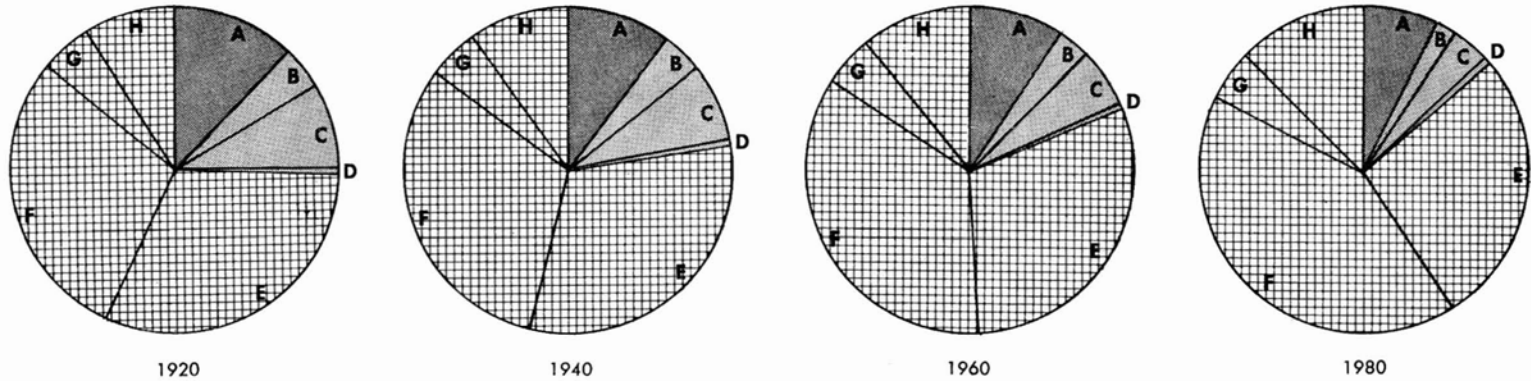
* More developed major areas include the less developed region Other Oceania.
  Less developed major areas include the more developed regions of Japan and
  Temperate South America.

Figure XIII. Percentages of world's urban and rural population, conforming to national definitions, in major areas, estimated for 1920, 1940, 1960 and 1980

raw materials for urban industries. Modern transport and organization permits some international redistribution of food, hence attainable levels of urbanization do not depend entirely on levels or agricultural productivity within each country. A technically improved agriculture can provide considerable surpluses per agricultural worker, hence the world level of urbanization can rise.

Where land resources are limited, however, a considerable proportion of the rural population can become economically redundant as a result of the increased productivity of agricultural workers. To accommodate, sustain and employ productively an increased population no longer needed for agriculture requires heavy capital investments in technical facilities, especially when this accommodation is to occur in cities. Regional differences in the relative scarcity of either land, labour or capital, therefore, will continue to dictate different priorities among technologies which are labour-intensive, capital-intensive or land-intensive.

It is also certain that population compositions and trends differ under diverse settlement forms, and that these differences can have much importance in economic, social and physical development plans. A superficial indication of the diversity of the effects of urbanization in different parts of the world is provided in the present report where, in chapter I, some of the variations in the sex composition of the urban and rural population are briefly examined. Variations can be greater in terms of population composition by age and marital status, households or families, educational attainment and types and intensity of economic activity. In these and other detailed respects, the changes in population characteristics and trends set into motion while cities grow and multiply can be diverse among regions differing both in their socio-cultural backgrounds and their respective levels of economic development.

With its debatable detailed estimates, the present report is only an attempt to survey the growth of urban and rural population throughout the world in its broad magnitudes. The survey makes it evident that the traditional twofold distinction between urban and rural areas has become insufficient for many purposes, and that more detailed enlightenment is now needed than that resulting from the mere study of rates of growth in those two sectors.

Annexes

Annex I

COMPOSITION OF MAJOR AREAS BY REGIONS AND COUNTRIES

It has long been customary to distinguish five or six continents among the habitable areas of the world. The concepts of the five or six continents have lost much of their significance for a number of modern purposes, and are likely to lose more as time passes. The basic scheme of geographical classification used in this report refers to eight major areas that do not conform entirely to the conventional definitions of the continents, and are so drawn as to obtain somewhat greater homogeneity in sizes of population, types of demographic circumstances and accuracy of demographic statistics. Six of the major areas were further subdivided into regions.

Because countries such as the Soviet Union, Turkey and the United States of America overlap the traditional boundaries of continents, the major areas could not be defined to coincide with continents, with the exception of Africa. In view of its size, the Soviet Union is considered as a major area by itself, hence the areas designated here as Europe or Asia include no part of the Soviet Union. The distinction of East Asia and South Asia as separate major areas was dictated largely by the size of their population. Northern America and Latin America were distinguished as major areas, rather than the conventional distinction being made between the continents of North America and South America, because population trends in the middle American mainland and the Caribbean region more closely resemble those of South America than those of America north of Mexico. Latin America as defined here has somewhat wider limits than the twenty American republics of Spanish, Portugese and French speech which constitute Latin America in a stricter sense.

The scheme of major areas and component regions followed in this report was first used in a recent United Nations publication entitled *World Population Prospects as Assessed in 1963.*[a] The following modifications of the previous scheme have been observed in this report:

(a) To permit allocation of population figures for the previously undivided city of Berlin, West Berlin has been included with the region of eastern Europe;

(b) The regions of western, eastern and middle Africa, of the previous report, have been combined into one region, namely, Tropical Africa, and

(c) The regions of Melanesia, Polynesia and Micronesia have been combined into one, namely Other Oceania, i.e., other than Australia and New Zealand, and not including Hawaii which is included with the United States.

The outlines of each region are illustrated in map 1 in the text (p. 30). Map 1 also indicates the current levels of urbanization in each region (as defined by the percentage of total population in cities of 20,000 or more inhabitants in 1960).

For present purposes — as also in the previous report on *World Population Prospects as Assessed in 1963* — the major areas have

been divided into two categories of regions, considering the levels of economic, social and demographic indicators by which they can be distinguished. In these respects, however, some heterogeneity is noted among regions constituting the same major areas. Japan and Temperate South America are among the more developed regions but they are situated in the major areas of East Asia and Latin America, respectively, the greater part of which are less developed. Oceania, in its majority a more developed major area, comprises the less developed region of Other Oceania (other than Australia and New Zealand, i.e., Melanesia, Polynesia and Micronesia). Consequently, the grouping of more developed, or less developed, major areas does not coincide with the grouping of more developed, or less developed, regions.

In the list which follows, countries are listed under the regions in which they have been grouped, and the regions according to the major areas of which they form part. The list follows the order of size of urban population in 1960 and includes all countries with a population larger than 5,000 inhabitants.

Major area	Region	Countries
I. More developed major areas		
Europe . . .	Western Europe	Federal Republic of Germany, France, Netherlands, Belgium, Austria, Switzerland, Luxembourg, Monaco, Liechtenstein
	Southern Europe	Italy, Spain, Yugoslavia, Portugal, Greece, Albania, Malta, Gibraltar, San Marino, Andorra
	Eastern Europe [b]	Poland, Romania, Eastern Germany, Czechoslovakia, Hungary, Berlin, Bulgaria
	Northern Europe	United Kingdom of Great Britain and Northern Ireland, Sweden, Denmark, Finland, Norway, Ireland, Iceland, Channel Islands, Isle of Man, Faeroe Islands
Northern America . . .	Northern America	United States of America (including Alaska and Hawaii), Canada, Bermuda, Greenland, St. Pierre and Miquelon
Soviet Union . .	Soviet Union	Union of Soviet Socialist Republics

[a] United Nations publication, Sales No.: 66.XIII.2.

[b] The purpose of this report is to describe world population on the basis of urban and rural geographic definitions rather than political definitions. For this reason, the entire city of Berlin has been included in eastern Europe.

Major area	Region	Countries
Oceania . . .	Australia and New Zealand	Australia, New Zealand
	Other Oceania	Melanesia (including New Guinea, Papua, British Solomon Islands, New Caledonia, New Hebrides, and Norfolk Island), Polynesia and Micronesia (including Fiji Islands, Western Samoa, Pacific Islands under United States administration, French Polynesia, Guam, Tonga, Gilbert and Ellice Islands, American Samoa, Cook Islands and smaller islands with fewer than 5,000 inhabitants)

II. *Less developed major areas*

Major area	Region	Countries
East Asia . .	Mainland region	Mainland China, Hong Kong, Mongolia, Macau
	Japan	Japan
	Other East Asia	Korea, China (Taiwan), Ryukyu Islands
South Asia . .	Middle South Asia	India, Pakistan, Iran, Afghanistan, Ceylon, Nepal, Bhutan, Sikkim, Maldive Islands
	South-East Asia	Indonesia, Viet-Nam, Philippines, Thailand, Burma, Malaysia, Cambodia, Laos, Singapore, Portuguese Timor, Brunei
	South-West Asia	Turkey, Iraq, Saudi Arabia, Syria, Yemen, Israel, Jordan, Lebanon, Southern Yemen, Cyprus, Muscat and Oman, Palestine (Gaza Strip), Kuwait, Bahrain, Trucial Oman, Qatar
Latin America	Tropical South America	Brazil, Colombia, Peru, Venezuela, Ecuador, Bolivia, Guyana, Surinam, French Guiana
	Middle America (mainland)	Mexico, Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, British Honduras, Canal Zone
	Temperate South America	Argentina, Chile, Uruguay, Paraguay, Falkland Islands
Africa	Northern Africa	United Arab Republic, Sudan, Morocco, Algeria, Tunisia, Libya, Spanish North Africa, Ifni, Spanish Sahara
	Tropical Africa	Western Africa (including Nigeria, Ghana, Upper Volta, Mali, Ivory Coast, Senegal, Guinea, Niger, Sierra Leone, Dahomey, Togo, Liberia, Mauritania, Portuguese Guinea, Gambia, Cape Verde Islands and St. Helena); Eastern Africa (including Ethiopia, Tanzania, Kenya, Uganda, Mozambique, Madagascar, Rhodesia, Malawi, Zambia, Rwanda, Burundi, Somalia, Mauritius, Rèunion, Comoro Islands, French Somaliland and Seychelles); Middle Africa (including Democratic Republic of the Congo, Angola, Cameroon, Chad, Central African Republic, Congo (Brazzaville), Gabon, Equatorial Guinea and São Tomé and Principe)
	Southern Africa	South Africa, Lesotho, Namibia, Botswana and Swaziland

Annex II

LIST OF DEFINITIONS USED IN THE ESTIMATION OF "URBAN" POPULATION AS NATIONALLY DEFINED

The following list presents the national definitions of "urban" used in arriving at the estimates of urban population shown in table 44 in annex IV. The list excludes countries without a city of at least 100,000 inhabitants in 1960. Where there has been no change in the definition of urban among recent censuses, only a statement of definition is made. Where the definitions varied among recent successive censuses, the censuses are identified by the year in which they were taken. If no definition was available or where the national definition was not used, a short statement indicating the basis used in estimating urban population will be found in the footnotes.

Europe

United Kingdom:

England and Wales . . Area classified as urban for local government purposes, i.e., county boroughs, municipal boroughs and urban districts

Northern Ireland . . Administrative county boroughs, municipal boroughs and urban districts

Scotland . . . . . 1951: Cities and all burghs, towns and villages of 1,000 or more inhabitants

1961: Cities and all burghs

Federal Republic of
Germany . . . . 1950: Communes of 2,000 or more inhabitants

1961: Urban population not explicitly defined [a]

Italy . . . . 1936: Communes with less than 50 per cent of the economically active population engaged in agriculture

1951: Urban population not reported in the census [b]

1961: Urban population reported but not explicitly defined

France . . . . . . 1954: Communes of more than 2,000 inhabitants

1962: Communes containing an agglomeration of more than 2,000 inhabitants living in contiguous houses or with not more than 200 metres between houses, and communes of which the major part of the population is part of a multicommunal agglomeration of this nature

Spain . . . . 1940: *Municipios* of 10,000 or more inhabitants

1950: Definition of urban population not explicitly stated but evidently quite different from that of 1940 [c]

1960: *Municipios* of 10,000 or more inhabitants

Europe (continued)

Poland . . . . . . 1950: Towns, i.e., localities having an urban administrative organization with a mayor or president

1960: Towns and settlements of urban type, e.g., workers' settlements, fishermen's settlements, health resorts

Eastern Germany . . . Communes of 2,000 or more inhabitants

Netherlands . . . . . 1947: Municipalities of 20,000 or more inhabitants

1960: All municipalities with at least one population cluster of 5,000 or more inhabitants and other municipalities in which not more than 20 per cent of the economically active male population is engaged in agriculture [d]

Belgium . . . . . . Communes of more than 5,000 inhabitants

Romania . . . . . 1948: Cities and towns established by law

1956: Cities, towns and 183 other localities (comprising 13 per cent of total urban population) having urban socio-economic characteristics

Hungary . . . . . . Budapest and all other legally designated towns

Czechoslovakia . . . . 1950: Communes of 2,000 or more inhabitants

1961: Towns which are seats of a regional or district national committee and communes of 2,000 (approximately) or more inhabitants which either (a) are part of an urban agglomeration or (b) in general, have specified urban characteristics (relating to density, availability of certain facilities and percentage of the population engaged in agriculture) and perform specified urban functions for the surrounding rural area

Yugoslavia . . . . . 1953: Administrative units governed by a city people's committee

1961: Localities of 15,000 or more inhabitants; localities of 5,000-14,999 inhabitants of which at least 30 per cent are not engaged in agriculture; localities of 3,000-4,999 inhabitants of which at least 70 per cent are not engaged in agriculture, and localities of 2,000-2,999 inhabitants of which at least 80 per cent are not engaged in agriculture

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[a] Assumed defined as in 1950.

[b] A small difference was noted between the 1961 census urban population and the population in communes of 20,000 or more inhabitants. It was assumed that the same proportionate difference also applied in 1951 and an estimate of urban population was derived from the 1951 data on communes of 20,000 or more inhabitants.

[c] For purposes of comparability the 1950 census population of municipios of 10,000 or more inhabitants was substituted for urban population as then defined.

[d] A semi-urban population was also defined. For present purposes it was assumed that better comparability with the 1950 data is achieved by including the semi-urban with the rural population.

Europe (continued)

Sweden . . . . 1950: Cities (städer) i.e., localities with urban status

1960: Built-up areas with at least 200 inhabitants and usually not more than 200 metres between houses

Greece . . . . 1951: All communes of Greater Athens and those having 10,000 or more inhabitants in the largest centre of population

1961: Urban: municipalities and communes with 10,000 or more inhabitants in the largest population centre and twelve multicommunal urban agglomerations. Semi-urban: municipalities and communes with 2,000-9,999 inhabitants in the largest population centre, excluding urban agglomerations

Austria . . . . Communes of more than 5,000 inhabitants

Portugal . . . . . . 1950: Localities of 2,000 or more inhabitants

1960: Urban population not explicitly defined[a]

Denmark . . . . . . 1950: Urban agglomerations of 250 or more inhabitants

1960: Agglomerations of 200 or more inhabitants

Bulgaria . . . . . . Towns, i.e., localities legally established as urban

Finland . . . . . . 1950: Localities legally established as towns or market towns (kanpungit, kanppalat)

1960: Non-administrative agglomerations, i.e., almost all groups of buildings occupied by at least 200 people and with usually not more than 200 metres between houses

Switzerland . . . . 1950: Communes of 10,000 or more inhabitants

1960: Communes of 10,000 or more inhabitants including suburbs

Norway . . . . . . 1950: Incorporated towns

1960: Localities or population clusters of 2,000 or more inhabitants, irrespective of administrative divisions, with usually not more than 50 metres between houses, but including smaller groups of houses naturally belonging to a cluster even if they are more than 50 metres distant[a]

Northern America

United States of
America . . . . . Incorporated and unincorporated places of 2,500 or more inhabitants, including the urbanized zones around cities of 50,000 or more inhabitants

Canada . . . . . . 1951: All cities, towns and villages of 1,000 or more inhabitants, whether incorporated or not, all parts of census metropolitan areas and other major urban areas

1961: Cities, towns and villages of 1,000 or more inhabitants, whether incorporated or unincorporated, including urbanized fringes of cities classed as metropolitan areas and other major urban areas. In 1961, also including urbanized fringes of certain smaller cities if the population of city and its urban fringe was 10,000 or more

Union of Soviet Socialist Republics

USSR . . . . Cities and urban-type localities, officially designated as such by each of the constituent Republics, usually according to the criteria of number of inhabitants and predominance of agricultural or non-agricultural workers and their families

Oceania

Australia . . . . . . 1947: Capital cities of states and territories, other cities which are separately incorporated and other agglomerations within boundaries determined for census purposes and classified as urban

1961: Cities and towns of 1,000 or more inhabitants and contiguous urban developments

New Zealand . . . . . 1951: Central cities, adjacent boroughs and the urbanized parts of counties contiguous to them

1961: All cities and boroughs

East Asia

Mainland China . . . 1949-1956 series of official estimates: cities, including suburbs and towns[g]

Japan . . . . Urban municipalities (all *shi* and the *ku* of Tokyo-to) usually having 30,000 or more inhabitants and which may include some rural area as well as urban cluster

Republic of Korea . . 1949: Incorporated cities of 40,000 or more inhabitants

1960: Seoul city and municipalities of 5,000 or more inhabitants (*shi*)

China (Taiwan) . . . . 1947-1955 series of official estimates: cities and towns

Hong Kong . . . . . 1931: Island of Hong Kong and Kowloon Peninsula[f]

1961: Districts in which high-density building is permitted and adjoining districts in which an intermediate scale of density is permitted[f]

South Asia

India . . . . 1951: Localities (municipalities and towns) of 5,000 or more inhabitants and having definite urban characteristics. A few localities of less than 5,000 inhabitants but having urban characteristics are included while a few of more than 5,000 inhabitants but having rural characteristics are excluded

1961: Towns (places with municipal corporation, municipal area committee, town committee, notified area committee or cantonment board); also, all places having 5,000 or more inhabitants, a density of not less than 1,000 persons per square mile, at least three-fourths of the adult male population employed in pursuits other than agriculture, and pronounced urban characteristics

Indonesia . . . . . . 1930: Urban population not explicitly defined

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[e] This definition does not coincide with municipalities for which data have been published in another source. See annex III.

[f] Owing to lack of comparability in census definitions, estimates were substituted in accordance with a definition in which the urban population is considered to consist of the population of the following: Hong Kong Island, Kowloon, New Kowloon, Tsuen Wan, New Territories and five towns of 10,000 or more inhabitants in New Territories.

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Pakistan . . . . 1961: Municipalities, regency capitals and other places with urban characteristics

1951: Localities of 5,000 or more inhabitants and all municipalities

1961: Municipalities, civil lines, cantonments not included within municipal limits, any other continuous collection of houses inhabited by not less than 5,000 persons and having urban characteristics and also a few areas having urban characteristics but fewer than 5,000 inhabitants

Turkey . . . . 1950: Chief cities and towns; these are localities with a municipal organization, i.e., administrative centres of provinces and districts regardless of size, and other agglomerations of 5,000 or more inhabitants

1960: Localities of more than 10,000 inhabitants

Iran . . . . 1950: estimate: Cities, towns and villages of 5,000 or more inhabitants and the administrative centres of districts irrespective of number of inhabitants

1960: Cities, towns and villages of 5,000 or more inhabitants

Philippines . . . . . . 1948: Chartered cities and administrative centres of municipalities

1960: Baguio, Cebu and Quezon cities; municipalities with a density of not less than 1,000 persons per square kilometre; administrative centres of cities and municipalities with a density of not less than 500 persons per square kilometre or with a population of 20,000 persons or more; administrative centres and *barrios* of 2,500 persons or more

Thailand . . . . 1947: Urban population not explicitly defined

1960: Municipal areas

Burma . . . . 1931: Localities (municipalities and towns) of 5,000 or more inhabitants and having definite urban characteristics. A few localities of less than 5,000 inhabitants but having urban characteristics are included, while a few of more than 5,000 but having rural characteristics are excluded

1953-1954 census of urban areas: Urban population not explicitly defined[g]

Iraq . . . . 1947: Urban population not explicitly defined

1957: Cities and towns

Western Malaysia . . . 1947-1957: Towns and villages of 1,000 or more inhabitants

Syria. . . . . Cities, *Mohafaza* centres and *Mantika* centres[h]

Israel . . . . 1951 estimate: Towns, settlements which are adjacent to towns and of which most of the inhabitants are engaged in non-agricultural

occupations, work camps and urban villages

1961: All settlements of more than 2,000 inhabitants, except those where at least one third of the heads of households, participating in the civilian labour force, earn their living from agriculture

Singapore . . . . . . City of Singapore

Ceylon . . . . 1953: Municipalities, urban council areas and local board areas

1963: Urban population not explicitly defined

Latin America

Brazil . . . . Urban and suburban zones of administrative centres of *municipios* and *distritos*

Mexico . . . . Localities of 2,500 or more inhabitants

Argentina . . . . . . 1947: Cities, towns and villages of 2,000 or more inhabitants

1960: Urban population not explicitly defined[i]

Colombia . . . . . . 1951: Administrative centres of districts and *municipios*, having 1,500 or more inhabitants

1964: Urban population not explicitly defined[j]

Chile . . . . 1952: Localities of demographic and administrative importance, generally capitals of communes, having definite urban characteristics contributed by certain public and municipal services

1960: Populated centres which have definite urban characteristics contributed by certain public and municipal services

Venezuela . . . . . . 1950: Localities of 1,000 or more inhabitants

1961: Populated centres (*centros poblados*) of 1,000 or more inhabitants, of which those having 1,000 to 9,999 inhabitants are classified as intermediate between urban and rural.

Cuba . . . . 1953: Localities of 150 or more inhabitants and having urban characteristics such as electricity and legal and medical services

1963 estimate:[k] Centres of 2,000 or more inhabitants

Peru . . . . 1940: Capitals of departments, provinces and districts and other localities of which the number of inhabitants exceeds the average for the capitals, provided such centres do not have typically rural characteristics

1961: Capitals of districts and those populated centres with such urban characteristics as streets, plazas, water supply systems, sewerage systems, electric lights etc.

Uruguay . . . . 1963: Urban population not explicitly defined[l]

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[g] Urban population was assumed to be growing during 1950-1960 at a rate comparable with the growth of localities of 20,000 or more inhabitants during 1931-1954.

[h] 1950 estimated, assuming urban population as enumerated in the 1960 census to have grown according to the trend reflected in the 1955-1960 data on registered population.

[i] Urban population estimated, complete information on the urban population from the 1960 census not having become available.

[j] Estimate compiled from data on *municipio* centres assuming the same definition as in 1951.

[k] Source: Juan Perez de la Riva, "La Population de Cuba et ses problèmes" *Population* (Paris), No. 1, jan-fev. 1967, pp. 99-110.

[l] Assumed to have grown during 1950-1960 in conformity with the trend in localities of 20,000 and more inhabitants during 1908-1963.

Latin America (continued)

Ecuador . . . . 1950: Capitals of provinces and cantons

1962: Cities, capitals of provinces and cantons

Africa

United Arab Republic . 1947: Governorates and chief towns of provinces and districts

1960: Cities, including the five largest cities, which are also governorates, and the capitals of provinces and districts

South Africa . . . . . 1951: Cities, towns and villages having some form of local urban government and others considered sufficiently urban in character

1960: All areas of 500 or more inhabitants and adjoining suburban areas, but excluding predominantly rural agricultural settlements, temporary villages for construction work in rural areas and alluvial diamond diggings; well-established towns of fewer than 500 inhabitants but at least approximately 100 white inhabitants, and with specified urban characteristics, and "rural" portions of certain districts in which large metropolitan areas fall and where the percentage of the "rural" population is small compared with the urban and a considerable proportion of the workers follow urban-type occupations

Africa (continued)

Nigeria . . . . 1931 estimate: The forty largest towns

1952-1953: Towns with a population of over 20,000 inhabitants [m]

1963: Urban area is a population centre which has 5,000 or more inhabitants and is predominantly non-agricultural. It is composed of one or more entire administrative subdivisions of higher or lower level [m]

Morocco . . . . 1950-1952 estimate: Urban population not explicitly defined

1960: 117 urban centres

Algeria . . . . 1948: Forty-six important communes having local self-government

1960: Fifty-five most important communes having local self-government

Democratic Republic of the Congo . . . . . Estimate based on 1947 survey: Urban population not explicitly defined

Estimate based on 1955-1957 surveys: Agglomerations of 2,000 or more inhabitants where the predominant economic activity is of non-agricultural type and mixed agglomerations (population 1,391,481) which are urban because of their type of economic activity but rural in size

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[m] For the present purpose neither the definition of 1952-1953 nor that of 1963 was used. The urbanization trend was tentatively re-estimated on the basis of urban population as defined in 1931 and the trend in the estimated percentage of the country's population in localities of 20,000 and more inhabitants.

METHODS USED TO ESTIMATE AGGLOMERATED POPULATION (LOCALITIES WITH 20,000 AND MORE INHABITANTS), 1920-1960

Urbanization can be viewed as a process of population concentration in which progressively larger proportions of population are agglomerated within and around limited land areas. In many countries the boundaries of urban administrative jurisdictions approximate the contours of dense population settlement, and in some of these countries urban boundaries are revised frequently enough so that they may also reflect the approximate changes actually occurring in the outer limits of compact settlement. In most countries, however, the settlement contours of urban agglomerations do not coincide with the boundaries of land areas defined as urban for legal and administrative purposes.

For many rapidly growing cities it would be administratively or politically inexpedient to revise legal municipal boundaries frequently enough so as to reflect the continuing spread of suburban settlement. Nor is an urban administration necessarily instituted whenever a small town acquires certain minimal urban characteristics. For these reasons, the census definitions of many countries have been modified so that urban units can be distinguished also in relation to other criteria which are not strictly administrative. In addition, numerous countries have established alternative sets of population statistics, such as those for "conurbations", "metropolitan areas" or "agglomerations", to be used, according to the purposes, as substitutes for statistics concerning various cities when defined more conventionally.

In many cases, statistical units defined by functional criteria are delineated by combining adjacent administrative units to form a larger composite urban area. Statistical units defined by strict cluster or density criteria cannot follow any administrative boundaries. Units defined by density or cluster criteria most accurately measure the extent of actual urban population settlement; however, in many countries it is convenient for other statistical and planning purposes to use composite units which follow some administrative boundaries since many other types of statistics are collected by local administrative authorities and can, therefore, only be tabulated for units defined by administrative boundaries. Examples are the corresponding statistics on births, deaths, school enrolment, employment, income-tax records, vehicle permits, building permits and many kinds of economic data. The case of the United States of America has special interest in the context of the present study, in so far as census statistical units have been defined for places of an urban type in conformity with all three types of alternative delimitations: "urban places" as administratively defined; "metropolitan areas" defined by functional criteria, and "urbanized areas" defined by density criteria.

A. Administrative urban boundaries

Major agglomerations are typically overbounded in some countries and underbounded in other countries. Municipalities in mainland China, for instance, and *shi* areas of Japan as reorganized since 1953 are wider than the corresponding agglomerations. In these and some other instances larger cities typically serve as administrative centres with a jurisdiction applicable also to a more or less extensive surrounding territory. In Latin American countries, *municipios* are local government territories administered from a central agglomeration, but they can also include other detached urban settlements and generally much dispersed agricultural popu-

lation under the jurisdiction of the same city. In these instances central cities do not have separate legal boundaries, but city limits can be identified according to certain visible or calculable features; the delineation of big cities in these terms is rendered difficult as they may extend over entire *municipios* and beyond.

In some countries, by contrast, the territories of local political units are very numerous, and many of them quite small. In many countries of Europe the minimum governmental unit is the commune. Wherever there is an appreciable town, it can be assumed that it is at least coextensive with the commune. Communal boundaries of growing towns and cities are sometimes extended by annexations, but in the case of big cities it is usually evident that boundary adjustments have not progressed far enough to include all suburbs, nor are pairs of adjacent communes usually merged into one wherever urbanized areas of cities and towns situated near each other have become contiguous. In many English-speaking countries, different local units of government are recognized, some of them of an urban type, but boundary extensions or changes in administrative status occur much less frequently than would be required if the growth of city agglomerations were to be reflected. Considering the varied systems of local administration in numerous other countries, it is not easy to arrive at general statements which are appropriate to each case. In the censuses of some countries, though there are data on urban places, it is not clearly specified what type of local administrative units is being referred to.

B. Statistical areas defined by functional urban dominance

Recognizing that urban phenomena, at least in the case of big cities, often extend considerably beyond the administrative municipal boundaries, governmental and other authorities in many countries have established wider concepts permitting the determination of a functional region under urban dominance as the composite of several, sometimes numerous, adjacent administrative units. Often these areas are defined for statistical and research purposes only, but sometimes areas so defined are also vested with selected collective, functions, e.g., a "greater city" postal zone, police district, transport authority, planning board etc. The administrative reorganization in Japan, to a certain extent, has resulted in *shi* areas extensive enough to comprise functionally interdependent areas of urban dominance under unified local governments.

In addition to strictly urbanized terrain, the wider areas usually include more or less extensive tracts of rural settlement. Large rural areas are inevitably included when the component administrative units themselves are rather large. With the intensified use of modern transport and communication, there has been a tendency for such functional regions to be defined within ever-wider geographic limits. It cannot be said, therefore, that the concepts developed in each country are comparable between countries or in the course of time, nor necessarily between all cities within a given country. An important attempt, however, has been made to estimate the population of all the world's cities larger than 100,000 by the standards of one national concept.[a]

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[a] K. Davis, *The World's Metropolitan Areas*, International Urban Research, University of California (Berkeley, California, 1959).

An early recognition of urban expansion beyond the confines of individual administrative localities is reflected in the concept of "conurbations", notably those combining 500,000 or more inhabitants in Great Britain, and the capitals of certain European and Latin American countries defined as "greater cities"[b] Often these may be nearly coincident with the extent of corresponding high-density urbanized terrain, but they may also contain minor rural enclaves. The concept, it may be noted, is generally used selectively and often does not apply to agglomerations much smaller than 500,000. Of more recent origin is the rather extensive concept of "metropolitan areas", especially as applied to all cities with an administrative centre of at least 50,000 inhabitants in the United States. Those are areas where the evidence points at a close interdependence of local functions with those of a central city. "Metropolitan areas" have also been defined elsewhere, e.g., in Canada and Australia and, more selectively, for some of the big cities in Latin America and southern Europe. In these instances it is not certain whether the criteria for drawing the outer geographic limits are as comprehensive as in the case of the United States. More recently, the research institutes of certain countries, e.g., France and the Federal Republic of Germany, have drawn up areas under the influence of chief cities in two or several concentric zones, according to the intensity of that influence. Not all urban settlements of a metropolitan area are necessarily contiguous, and the area can include numerous "satellite" commercial, industrial or residential towns linked with the major conurbation by intensive transport. For this reason, the "metropolitan rings", or "zones of influence", are apt to include fairly extensive rural tracts. It can be presumed that urban influence is conspicuous in rural terrain within short or moderate distance, but the prevalent form of habitation in those areas is probably not of an urban type.

C. Statistical areas defined by clusters of urban settlement

For many purposes it is generally agreed that localities are best defined as population "clusters",[c] irrespective of the accidents of local forms of administration or characteristics of the inhabitants. The Conference of European Statisticians has recommended that clusters be normally defined as continuous areas with houses no more than 200 metres apart.[d] Ideally, this method would permit a classification of population in clusters of any size, from a single isolated dwelling to the largest conurbation. In actual practice, this can be done only down to some lower size limit.[e] Urban units of 20,000 or more defined by the cluster criterion, or other similar criteria, are very good approximations of urban agglomerations as defined in this report.

In practice, only few countries have so far been able to use the cluster criterion of delineation systematically with great precision. More numerous are the countries where an effort has been made to obtain data by which this concept can be approximated. In some countries the cluster criterion has actually been applied in the census. In Sweden, clusters as small as 200 inhabitants are delineated.

The extent of population agglomeration can be most accurately measured by cluster criteria; however, delineation of clusters requires a large amount of detailed map work which is beyond the resources of many countries. Expedient approximations of similar standards can be designed using density criteria. In Japan, for

example, new statistical units were defined in the censuses of 1960 and 1965 which are known as "densely inhabited districts" and consist of contiguous census enumeration districts with population densities of at least 4,000 persons per square kilometre and combined population totals of at least 5,000 inhabitants. The "urbanized areas" defined in the 1950 and 1960 censuses of the United States for administrative centres of at least 50,000 inhabitants comprise, in addition to the centres, immediately adjacent areas meeting certain specifications and all other contiguous census enumeration districts inhabited at an urban level of density.

D. Procedures adopted to delimit agglomerations

The aim in the present report has been to arrive at estimates of the population in agglomerations as defined by the contours of compact settlement. Where it could be presumed that administrative or other defined urban statistical units do not deviate greatly, in numbers of population, from the extent of urban density contours, the available data were simply accepted without any further adjustment.[f] In countries, or for cities, where such an assumption was not satisfactory, and pertinent data could be readily obtained, special adjustments were attempted, at least for agglomerations with 500,000 or more inhabitants.[g] The estimates for most agglomerations smaller than 500,000 in 1960, on the other hand, were usually left to depend on the most suitable statistical data in their available form; in many instances, these were simply the existing data on cities and towns within administrative limits, but where other data concerning clusters, conurbations or metropolitan areas were available and appeared more suitable, these were used.[h] In a few instances, the most nearly pertinent data were from a research institute, rather than from an official source.

Where special estimates for agglomerations of 500,000 or more were prepared, area data and maps were often examined to identify the rough contours of high-density urban settlement. The larger cities of Latin America and a few other countries were delineated in this fashion.[i] In the case of mainland China, where major cities are administratively overbounded, it was necessary to estimate what percentage of the population of urban municipalities actually resided in territory under rural forms of settlement, and to subtract this amount from the totals for urban municipalities as officially defined; owing to a lack of detailed data, this could be done only in an aggregate calculation and the results could be regarded only as rough orders of magnitude. Though, as already stated, use was made of the officially defined "densely inhabited districts" in Japan, a different set of estimates was substituted in the case of the biggest

[b] Some cities in India seem to have been similarly defined as "greater" agglomerations. The concept of "metropolitan districts" used in censuses of the United States from 1910 to 1940 in relation to cities with 200,000 or more inhabitants may also be considered in this category.

[c] *Principles and Recommendations for the 1970 Population Censuses* (United Nations publication, Sales No.: 67.XVII.3), para. 232.

[d] Conf. Eur. Stats/WG.6/83 (19 May 1959), para. 9.

[e] The difficulty of outlining the large number of very small clusters is an obvious impediment to the study of rural settlement patterns. This is unfortunate since an improved knowledge of forms of the rural habitat would have great value for purposes of rural development policy. For this subject, see, e.g., *Report of the Interregional Seminar on Rural Housing and Community Facilities*, Maracay, Venezuela, 2-19 April 1967 (ST/TAO/Ser.C/103).

[f] It is assumed that the contours of agglomerations are generally those of dense building or dense residence. In some instances, however, contours are drawn also with respect to the extent of infrastructural networks (municipal supplies of gas, water and electricity, sewerage, paved streets etc.) or zones of communal services (police, fire protection, distribution of mail etc.).

[g] Limited research facilities did not permit a full investigation to be undertaken. In some countries only the statistics according to administrative units were used though, if more extensive research were done, additional agglomerations larger than 500,000 might have been detected and larger population might have been ascribed to existing cities with more than 500,000 inhabitants.

[h] The consequence of this procedure, in most countries, has been a discontinuity of concept below a given size level, whether below the limit of 500,000 in Europe or some smaller limit, e.g., "urbanized areas" of at least 50,000 in the United States. In all these instances, an additional effort had to be made to avoid a duplicate count of smaller cities or towns contained within the larger composite areas but constituting separate administrative entities.

[i] The conditions of urban and peri-urban settlement and the typical density of rural population are extremely varied in different parts of the world. For example, the densities of rural population in some areas of Asia equal or surpass the average densities of population in the highly urbanized "megalopolitan" zones of Northern America and Europe. Peri-urban settlement in different countries may be predominantly in the form of residential suburbs, industrial satellite towns or poor neighborhoods like those constituted by shanty-town residents, squatters or occupants of houseboats. Owing to that diversity, no attempt was made to apply a uniform density standard. Sharp gradations of average density among administrative units surrounding a city, moreover, can only be expected when these are comparatively small. While the physical configuration of densely settled areas, as they appeared on the maps, was an important consideration, the standards for inclusion or exclusion of particular area units had to be decided in conjunction with other known circumstances, as mentioned in this note.

cities.[j] In India and Pakistan, direct use was made of the official data provided on bigger cities considered as "agglomerations"; it is not certain, however, whether the delineation of those agglomerations conformed to uniform criteria in view of the partly decentralized organization of the census in those two countries.

Not every country was studied in the same degree of detail. The importance of special estimates for agglomerations of 500,000 or more inhabitants was much greater in certain countries than elsewhere because a substantial share of the world's agglomerations of this size is held by relatively few countries. In 1960, only nine countries had more than five agglomerations of 500,000 or more inhabitants. These nine countries comprised two thirds of the world's agglomerations of such size.[k]

	Number of big cities (500,000 or more inhabitants)
United States of America	38
Mainland China	36
Soviet Union	25
Federal Republic of Germany . .	12
India	11
Japan	8
United Kingdom	7
Brazil	6
Italy	6

E. BOUNDARY DEFINITION IN TREND ESTIMATES

Since census dates in the various countries of the world differ greatly, it was necessary to interpolate all figures so that estimates for all countries could be provided for mid-year dates within the same years. The risk of error due to time interpolation varies, of course, with the length of the respective time intervals.

At least in the case of big cities, it is important to consider the effects of boundary change through time. Two types of questions may be asked in trend studies and alternative methodological procedures may be designed depending on the question asked:

(1) *Territorial units*. On the one hand, one may wish to note the population changes which have occurred within a given territory over time. For such estimates, boundaries are selected which approximate the limits of urban agglomerations at some given date, and estimates for all other dates can then be made in terms of this single, constant boundary definition. Growing agglomerations, however, may have been less extensive than the fixed territory at an earlier date, and may become more extensive at a later date.

(2) *Agglomeration units*. On the other hand, one may wish to observe the growth of agglomerated population units through time though the territory occupied by them may have expanded. For such purposes, the size of growing population units would have to be estimated within varied boundaries of dense settlement, account being taken of geographic shifts occurring simultaneously with the process of growth. The growth of population associated with area expansion of an agglomeration is equally significant as an urban increment whether it occurs as a result of migration to the added area or as a result of acquisition of urban living conditions by a local population previously living under rural conditions.

The subject of this report clearly requires the second approach. The size and configuration of urban population agglomerations continuously change as ever larger numbers of inhabitants settle at the perimeters of existing agglomerated settlement and around the "tentacles" represented by major transport arteries. Time series of data of this type, however, will be rarely found.

In some countries, such as the Soviet Union, urban expansion has generally been accompanied by periodic annexations to official municipal areas, and census data may approximately measure the actual growth of urban agglomerations.[l] This may also be the case in various other countries where some degree of flexibility in local territorial limits can be noted. In these instances, administratively defined urban units may grow in somewhat similar proportions as the agglomeration units.

In countries where composite statistical units were used — and those were usually countries in which boundary adjustments of minor administrative areas are rather infrequent — the boundary delimited for a recent date often had to be used for earlier dates as well. In these instances, the population of cities which were substantially less extensive at earlier dates may be somewhat overestimated at those dates, and the rate of increase in agglomerated population may thus be understated. The amount of population misclassified as "agglomerated", however, may be comparatively small since the previously rural settlement of any urbanized zone probably was comparatively sparse. The error would be most serious where a considerable zone previously under very dense rural settlement was transformed into urbanized territory. Such instances, however, may not have been numerous. Another problem, which could not be dealt with, results from the coalescence of previously separate urban areas into a combined agglomeration. In the United States and Japan, certain statistical adjustments were undertaken to minimize the error of estimation at earlier dates. The procedures used in these and other adjustments are described further in section G below.

F. BASIC DATA

Because of time and data limitations, and various problems of statistical comparability, some of the estimates prepared for this report could not be made with great precision. The estimates for mainland China are especially insecure. In every instance, census data have been used to the fullest extent possible. Although census methods are improving, and censuses are being designed with increased attention to the analytic uses of the resulting statistics in detailed studies of population trends, for a large part of the world the progress made in this direction still lags far behind the needs for more precise information. In addition to census data, official estimates, if available, have also been taken into consideration. Studies published by other institutions, where utilized, have been identified in footnotes in the discussion of estimates for individual countries. For countries with scant statistical documentation, it was sometimes necessary to refer to unofficial sources such as encyclopædias, gazetteers or almanacs. A detailed revision of the estimates prepared for this report is anticipated at a future date when data from new censuses taken in and around 1970 become available. It is also hoped that special collections of data for individual countries may become available in the future. With improved data, a greater methodological refinement may become possible for purposes of regional and international studies.

G. NOTES CONCERNING MAJOR AREAS, REGIONS AND COUNTRIES

Europe

For virtually all countries of Europe, data on urban areas with 20,000 or more inhabitants could be assembled from periodic, or sufficiently frequent, census enumerations. Interpolations and

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[j] This was indicated by the fact that "densely inhabited district" areas were delineated only within administrative units whereas the contiguous agglomerations of Japan's largest cities extend across the boundaries of some of those units.

[k] There is however much unevenness in the territorial distribution of agglomerations among countries within major areas. Twenty-three countries account for two thirds of the agglomerated population within each major area in 1960, namely six countries in Europe, five in Africa, four in Latin America, three in South Asia, two in East Asia, and one in Northern America, the Soviet Union and Oceania. Eighty-seven agglomerations account for two thirds of the big-city population within each major area in 1960, namely twenty-two in Europe, sixteen in East Asia, thirteen in South Asia, twelve in Northern America, eleven in the Soviet Union, six in Latin America, five in Africa, and two in Oceania.

[l] City growth in the Soviet Union is also reflected by rather systematic changes in administrative structure, notably within the hierarchy of city *soviets* (municipal administrations) of varying composition and degree of autonomy depending on the size and importance of each city, and the subdivision of big cities into numerous *rayons*, each of them administered by a local *soviet*.

extrapolations to arrive at estimates for mid-year dates were hazardous in several instances for the dates of 1940 or 1950, either because the census interval was rather long or because major wartime damages to cities had caused a disruption of the trend. In several instances, therefore, it was found preferable to extrapolate forward to 1940 from a preceding trend, or backward to 1950 from a subsequent trend. The estimates have been calculated for all countries within their present national boundaries. Where boundaries have changed, adjustments were made.

In the endeavour to arrive at data and estimates for large urban agglomerations, advantage was taken of the fact that in many European countries having large cities, data have been provided in censuses or elsewhere for urban statistical units defined by various types of criteria. In most instances, these special statistical units are defined for cities with a minimum size of 500,000 inhabitants (e.g., the major cities of Great Britain and the Federal Republic of Germany) or for capital cities only in some countries which contain only few large cities. In some instances, these were defined both within wider and narrower limits, but as the wider limits often included much rural settlement the narrower limits were selected for the present purpose. It was possible to trace the growth of such agglomerations in time only within the urban boundaries specified at one date, though it has to be admitted that contiguous urbanized terrain may have been less extensive at earlier dates, and may have expanded beyond those boundaries more recently. Nor could the same procedure be readily followed in every country, and the delimitations of big agglomerations in the data used for Eastern Germany, Italy, Poland and Spain probably fall somewhat short of the standards for cities of equal size in other European countries. Progressive extension of boundaries of urban units, however, can be noted in several countries (e.g., the communes in Italy or the *municipios* in Spain), and though annexations may lag behind the geographic spread of the corresponding agglomerations, the data for cities may nevertheless be indicative of the urban growth trend. This may also be true of the data for smaller cities and towns in the same countries.

Several countries (e.g., Scandinavian countries) provided time series of data for all agglomerations of at least appreciable size in terms of population clusters. Some other countries (e.g., France) provided data for multicommunal units in which the cluster concept was approximated. In the latter instances, the same units could be traced also in previous censuses. In countries where cities and towns other than the biggest ones could not be traced in terms of agglomerations, a discontinuity arises because the data for smaller cities were then too narrowly defined to be comparable with those for bigger cities. On the other hand, wherever bigger cities could be defined within the extent of agglomerations care was taken to avoid double counting of peripheral smaller towns or cities contained within agglomerations.

Western Europe

For the Federal Republic of Germany, conurbations have been determined in studies of the Akademie für Raumforschung und Landesplanung,[m] but these were found too numerous to trace through the successive censuses for the present study. By analogy with the United Kingdom, therefore, only those conurbations were traced whose combined population could have surpassed half a million inhabitants by 1960. These were: Ruhrgebiet, Hamburg, Stuttgart, Frankfurt-Offenbach, Munich, Cologne, Wuppertal-Solingen-Remscheid, Düsseldorf, Hannover, Mannheim-Ludwigshafen, Nürnberg-Fürth, Bremen and Wiesbaden-Mainz. In the original study, the conurbations, or *Stadtregionen* as they are called, were delimited in several successive concentric zones, including two outer zones (*Randgebiete*) which included much rural population; for the present purpose, those outer zones have been omitted. For

the remainder of the territory, the data are for communes larger than 20,000 inhabitants, and care has been taken not to include those communes which form part of the conurbations. The same areas were also identified in the census data for 1925, 1933, 1939 and 1961.

For France, use was made of a study of the Institut national de la statistique et des études économiques[n] in which agglomerations were defined for all urbanized areas as of the census of 1954. Paris was defined as an extended agglomeration (*agglomération étendue*), including also a peripheral zone (*zone d'attraction*) much of whose population is rural; the latter zone has not been included here. The territorial units composing each of the agglomerations have also been traced in the censuses of 1936 and 1962 and, with less detail, in those of 1921 and 1931.

For the Netherlands, data for communes of 20,000 or more inhabitants were taken. Though data for multicommunal agglomerations were found corresponding to the censuses of 1947 and 1960, corresponding data for earlier censuses could not be identified. The multicommunal agglomerations are not in many instances much larger in population than the corresponding central communes.

For Belgium, the data are for communes larger than 20,000 inhabitants except that for the five largest cities, namely Brussels, Antwerp, Liège, Ghent and Charleroi, data for the corresponding *arrondissements* were taken, and communes larger than 20,000 contained within those *arrondissements* were not included among the totals for the remainder of the country.

For Austria and Switzerland, the data are for communes of 20,000 or more inhabitants, as data for agglomerations were not readily found. The city of Vienna was calculated for 1920 and 1930 within the boundaries at that time, and for 1940 and thereafter within its present boundaries, disregarding the fact that around 1940 boundaries had been temporarily greatly enlarged.

Northern Europe

In censuses of England and Wales, six conurbations, each corresponding to at least a city of more than 500,000, are recognized, namely, Greater London,[o] south-east Lancashire (largest city: Manchester), West Midlands (largest city: Birmingham), West Yorkshire (Leeds), Merseyside (Liverpool) and Tyneside (Newcastle). In the census of Scotland, similarly, the conurbation of Clydeside (around Glasgow) is distinguished. These could be traced through censuses from 1921 to 1961, within constant areas, and all urban localities of at least 20,000 inhabitants contained within them were not included elsewhere. Under varying nomenclature, "urban" localities in England and Wales, Scotland and Northern Ireland are distinguishable by the type of local government. For 1940, estimates had to be interpolated for the long interval between the censuses of 1931 and 1951.

The Swedish census of 1960 presents data on agglomerations for that date and for earlier censuses, and these data have been used. Data on towns, including suburbs, have been found for censuses of Denmark;[p] in that instance, the city of Copenhagen was taken as "Hovedstaden" together with *forstadskommuner* (suburban communes). For Finland, data on towns have been combined, in the given instances, with data on adjacent communes where these were inhabited at high densities. For Norway, the data are those for cities including "inner suburbs" and "outer suburbs". Data on towns with suburbs in Ireland were found for recent censuses; for the lack of earlier data conforming to such a definition, a series was taken in which suburbs are not included.

[m] Akademie für Raumforschung und Landesplanung, *Stadtregionen in der Bundesrepublik Deutschland*, Forschungs- und Sitzungsberichte, Band XIV (Bremen, 1960).

[n] France, Institut national de la statistique et des études économiques, *Villes et agglomérations urbaines* (Paris, 1964).

[o] i.e., the conurbation within the green belt, not including overspill. The urbanized area of the Greater London region may also be defined more extensively (see chapter II, footnote 15 and chapter IV, footnote 14). In that instance, however, additional modifications would have to be made to avoid double count of the population of separate agglomerations to be considered as included in that of London.

[p] Denmark, Statistical Department, *Folketal, areal og klima* (Copenhagen, 1964)

Southern Europe

For Italy, census data on communes were used, and for Spain census data on *municipios*. In both countries, those minor administrative divisions are very numerous and there is some evidence of their occasional enlargement by annexation of surrounding, presumably urbanized, areas. Comparable time series of data for Italy were found in terms of *de jure* (i.e. resident) population, whereas those for Spain are in terms of *de facto* population.

For Yugoslavia, towns and cities could be distinguished as administrative areas with an administration of an urban type. For Greece, the data refer to communes, except that Greater Athens (including Piraeus) and Saloniki were taken within the boundaries defined as metropolitan areas in the 1961 census, and traced backward in earlier censuses. For Portugal, the data refer to parishes situated within the administrative seats of *conselhos*; the cities of Lisbon and Porto were defined as wider agglomerations in the 1960 census and have been traced back within those boundaries in earlier censuses.

Eastern Europe

For Poland, in view of boundary changes, statistics for 1940 and earlier years had to be found in part from German census data and also from separate data for Danzig. Under the Polish territorial administration, towns are recognized as areas under an administration of an urban type, while data from German sources, for areas previously under German administration, were for communes, as are also the data used for Eastern Germany. In Romania, Hungary and Bulgaria, likewise, the census data on towns are for areas under an administration of an urban type. The census data for Czechoslovakia, on the other hand, are for communes. Berlin, and its separate parts, were estimated within constant city boundaries. For some of these countries extrapolations and interpolations had to be made over fairly extended periods during which no census was taken.

Northern America

The census definition of "urbanized areas" in the United States corresponds rather closely to the concept of agglomeration as defined in this report. The United States "urbanized area" unit has been defined in 1950 and 1960 for agglomerations with an administratively urban nucleus of at least 50,000 inhabitants. Corresponding estimates for smaller agglomerations and for earlier dates were based on other data. The same could not be done for Canada. In that instance, areas defined as "metropolitan areas" in 1961 (i.e., mostly the cities with 100,000 or more inhabitants at that date) were traced in the data of earlier censuses as well as the statistics for other towns outside those areas whenever they had 20,000 or more inhabitants.

United States of America

In the 1950 and 1960 censuses, areas with urban features were defined by three types of delimitation: "urban places", "metropolitan areas" and "urbanized areas". "Urban places" as defined by the census are administrative units with minimum size of 2,500 inhabitants. [q] "Metropolitan areas" consist of central cities of 50,000 or more inhabitants and surrounding county administrative units which meet certain density and functional criteria. [r] The county units included within metropolitan areas contain some rural territory. "Urbanized areas" are designed to include only agglomerated

population. The "urbanized area" unit consists of a central city of 50,000 or more inhabitants and adjacent census enumeration districts of high density. [s] This is the most suitable definition for purposes of this report. Estimates for agglomerations of 50,000 or more inhabitants refer to "urbanized areas". Estimates for smaller agglomerations refer to "urban places".

The 1960 census data for 212 urbanized areas of 50,000 or more inhabitants were used for this report without adjustment. Estimates for 1950 are based on census data for "urbanized areas" as defined at that date; however, an adjustment was made to compensate for differences between the 1960 and the 1950 census procedures. In 1960, "urbanized areas" were defined for central cities which contained 50,000 or more inhabitants as of 1960. In 1950, however, "urbanized areas" were defined for central cities which had 50,000 or more inhabitants in 1940 — some ten years earlier. Twenty-seven additional areas would have qualified in 1950, if the criterion had been a population of 50,000 or more in the central city at the 1950 census. The combined population of the central cities of the additional twenty-seven areas amounted to 1,592,000 inhabitants. On the basis of observed data, it is known that the urban fringe of agglomerations in this size category contains about one fourth as much population as the central city. On this basis, the population of the twenty-seven areas may have totalled about 2,000,000. On the other hand, three areas were included in the 1950 list of "urbanized areas" even though the population of the central city had fallen slightly below 50,000 by the date of the census; these areas had a total population in 1950 of 197,000. Subtracting that figure from 2,000,000, one obtains 1,800,000 as a rough estimate of the additional population of "urbanized areas" in 1950 which would have been enumerated if all cities of 50,000 or more inhabitants in 1950 had been defined as "urbanized areas". This figure was then added to the 1950 census total for "urbanized areas".

Data for "urbanized areas" are available only for 1950 and 1960, and therefore estimates had to be made for earlier dates on the basis of available data for "urban places" and "metropolitan areas". [t] The estimates for total "urbanized areas" in 1920, 1930 and 1940 are the sum of two component estimates:

(1) Most "urbanized area" population lies within the boundaries of "metropolitan areas". This population was estimated for earlier dates on the assumption that the growth of "urban place" population within "metropolitan rings" occurred at approximately the same rate as the growth of the "urbanized area" population within "metropolitan rings". ("Metropolitan rings" consist of all areas within "metropolitan areas" which are outside the central city boundaries as administratively defined.) While not necessarily exact, this assumption appeared reasonable in view of the fact that much of the "urban place" population of "metropolitan rings" lies within the boundaries of "urbanized areas".

1920 for cities of 200,000 or more inhabitants and in 1930 and 1940 for additional cities of 100,000 or more inhabitants. In addition to the central city, these units included adjacent and contiguous minor civil divisions or incorporated places with high density. The "metropolitan district" definition resembled somewhat the concept of "conurbation" or "greater city" as then in use in some countries of Europe. For further discussion see United States Bureau of the Census, *Metropolitan Area Definition: A Re-Evaluation of Concept and Statistical Practice*, Working Paper No. 28 (Washington, D.C., 1968). A very thorough summary of the "metropolitan district" data for earlier dates is available in Warren S. Thompson, *The Growth of Metropolitan Districts in the United States, 1900-1940* (Washington, D.C., 1948). Estimates and projections based on adjusted metropolitan district definitions have also been provided for the period 1910-2000 in a study by Jerome P. Pickard, *Metropolitanization of the United States*, Research Monograph 2, Urban Land Institute (Washington, D.C., 1959).

[s] In some cases the centre consists of a group of two or three cities in which the combined population is 50,000 or more inhabitants.

[t] Data for "metropolitan areas" and urban components within "metropolitan areas" were obtained from a technical study which traces "metropolitan areas" for all census years back to 1900 in terms of 1950 boundary definitions. Donald J. Bogue, *Population Growth in Standard Metropolitan Areas, 1900-1950* (Washington, D.C., 1953). The data for urban components in this study refer to the 1940 urban definition.

[q] "Urban" population as defined prior to 1950 was population within the administrative boundaries of cities with at least 2,500 inhabitants, but additional places meeting certain criteria, including some smaller than 2,500 inhabitants, have also been defined as "urban" in the censuses of 1950 and 1960. The additional places defined as urban were primarily suburban fringes of large cities. In 1950 and 1960, "urban" population data were provided for both the old and the new definition. Where "urban place" data have been used for estimating time series in this report, the older definition was used throughout in order to maintain uniformity over time.

[r] The official title for "metropolitan areas" in 1950 was "Standard Metropolitan Area" (SMA). In 1960, the official title was "Standard Metropolitan Statistical Area" (SMSA). "Metropolitan districts" were defined in the censuses of 1910 and

(2) Where there has been heavy population settlement along major highways extending from central cities, a few small "tentacles" of urban population settlement included in the "urbanized area" tabulations may extend beyond the county units included in "metropolitan areas". This portion of the "urbanized area" population is very small. The population of such areas was estimated for earlier dates by assuming that the rate of population growth was similar to the total urban population growth rate of "metropolitan areas" smaller than 100,000 in 1950. (Total urban population here includes the population of central cities as well as the population of smaller "urban places" in the "metropolitan rings".)[u] The estimated "urbanized area" population outside "metropolitan areas" was then added to the totals for "urbanized area" population within "metropolitan areas" to obtain the total "urbanized area" population.

The "urbanized area" estimates include places of 50,000 or more inhabitants as well as smaller cities situated within the fringes of "urbanized areas". Smaller places of 20,000-49,999 inhabitants outside "urbanized areas" were estimated on the basis of size of place data for "urban places" as administratively defined.[v] Since the original data were grouped in the size category 25,000-49,999 at all dates, an estimating ratio was needed to inflate this size category to include places of smaller sizes down to 20,000 inhabitants. Inspection of the full range of size of place data for the United States reveals that the size of place distribution in this country is nearly that of a Pareto curve with unity gradient. Accordingly, it can be roughly estimated that the population of towns in the category 20,000-49,999, at all dates, was four-thirds that of towns in the category 25,000-49,999.

A comparatively minor adjustment had to be made to include Alaska and Hawaii which were not part of the United States at

censuses prior to 1950.[w] One further adjustment concerns the city of Boston, calculated here to include the "urbanized areas" of Lawrence-Haverhill and Lowell, to agree with data for 1960, though in 1950 the latter two agglomerations had not been defined as part of the agglomeration of Boston. Since censuses were taken usually in April, a slight interpolation was also made to refer the estimates to mid-year dates. Final estimates are shown in the tables in annexes IV and V.

Canada

In the census of 1961, seventeen "metropolitan areas" were defined. With one exception, these were urban units which surpassed (or in two instances nearly attained) 100,000 inhabitants at that date. Population totals for constant "metropolitan areas" could be traced from the census data for earlier dates, namely 1921, 1931, 1941 and 1951, as well as for other cities and towns within their administrative limits. This was done, and the results were interpolated for mid-year dates of 1920, 1930 and so forth. These estimates are not strictly comparable with the ones made for the United States.

Soviet Union

"Urban" population is defined in the statistics of the Soviet Union in accordance with flexible administrative units as that of "towns and urban-type settlements", including numerous localities smaller than 20,000 inhabitants. Continuously, additional localities attain this administrative status and frequently the administrative boundaries of large towns and cities are extended. This makes it permissible to assume that, by and large, the administrative areas tend to approximate also the extent of the corresponding agglomerations and their rates of geographic expansion. In addition, extending beyond the city boundaries, statistics have been furnished for the population of wider agglomerations in the instances of Moscow, Leningrad and Baku.

The establishment of a time series of estimates of urban population, however, is hampered by the fact that detailed statistics on the population of towns and cities have been furnished only in the censuses of 1926, 1939 and 1959; annual estimates of urban population have been published in statistical yearbooks for years beginning with 1950 and for individual cities from 1959 onward. A census of urban population was also taken in 1920, under the disrupting circumstances of that time, from which a few data have become available and can be compared with official estimates of 1917 and census results of 1926. Estimates for cities of 200,000 or more inhabitants in 1931 have also been published.[x] The tremendous growth of urban population between the census years of 1926 and 1939 makes estimates for localities of other size groups interpolated for 1930 quite hazardous. More seriously, estimates for localities by size class for 1950 cannot be obtained by interpolation from censuses of 1939 and 1959 considering the severe destruction of cities during the war in areas invaded and attacked by the enemy while, also during the war, other cities grew rapidly with the transfer of industries to other parts of the country. Furthermore, the territory of the Soviet Union was less extensive until 1939 than it is now. The following data and estimates of urban population (i.e., "urban" as officially defined) in the Soviet Union have been published:[y]

[u] The portion of "urbanized area" population outside "metropolitan areas" was first estimated for 1950 by subtracting the urban component of all "metropolitan area" population from the total "urbanized area" population. Because of insufficient data, it was assumed in this procedure that the population of all urban components within "metropolitan areas" was roughly equivalent to the "urbanized area" population within "metropolitan areas". The urban component of the "metropolitan area" population totalled 67,558,000, whereas the "urbanized area" population as then defined totalled 69,252,000 inhabitants. The excess of 1,694,000 "urbanized area" population was then treated as an estimate of the "urbanized area" population outside "metropolitan areas" in 1950. (The estimate of 1,694,000 "urbanized area" population is a *net* figure because it does not reflect the fact that in some individual areas the total "urbanized area" population is less than the population of urban components as defined prior to 1950 of the "metropolitan area".) It was assumed that this excess of "urbanized area" population may have grown at similar rates as the urban population of some of the smaller "metropolitan areas". The population of urban components of "metropolitan areas" smaller than 100,000 totalled 3,551,000 in 1950. The ratio of the two figures (1,694,000 and 3,551,000) is 0.477. This ratio could then be applied to the available totals for urban components of "metropolitan areas" smaller than 100,000 in 1920, 1930 and 1940 in order to obtain estimates of the "urbanized area" population outside "metropolitan areas" at those dates.

[v] These data were obtained for all census dates from United States Bureau of the Census, *Population Trends in the United States, 1900-1960*, Technical Paper No. 10 (Washington, D.C., 1964). The amount of population in cities of 25,000-49,999 inhabitants located outside "metropolitan areas" can be computed from data in this source for all dates. This figure was used as an estimate for inhabitants of cities of this size outside "urbanized areas" since almost all cities outside "urbanized areas" are also outside "metropolitan areas", and more precise data were not available. However, since "urbanized areas" are more narrowly defined than "metropolitan" areas", this estimate would be slightly lower than the actual figure.

The data in this source refer to "metropolitan areas" within constant boundaries defined in 1960 and "urban places" as defined prior to 1950. The published totals for the 25,000-49,999 category given in the source were adjusted at earlier dates to include the urban population of "metropolitan areas" (defined by 1950 criteria) in which the urban component had not yet reached 25,000 inhabitants. There is admittedly a small discrepancy here because the "metropolitan areas" in this source were defined by 1960 criteria, whereas the 1950 definition of "metropolitan areas" was used in the source for other estimates described previously (Bogue, *op. cit.*); however, this discrepancy could not be reconciled with data located thus far

[w] In 1920, only Honolulu (Hawaii) was larger than 50,000 inhabitants. Only one other town in Hawaii had more than 20,000 inhabitants in 1950. In 1960, towns between 20,000 and 49,999 inhabitants numbered two in Hawaii and one in Alaska

[x] V. Ts. Urlanis, *Rost Naseleniya SSSR* (Moscow, 1966), p. 30.

[y] USSR, Central Statistical Office, *Narodnoye Khozyaystvo SSSR v 1962 godu* (Moscow).

Date	Boundaries	Territory (millions of square kilometres)	Population (millions)	Of which: Urban (millions)	Rural (millions)
1917 . .	Present boundaries	22.4	163.0	29.1	133.9
	Boundaries up to 1939	21.7	143.5	25.8	117.7
1920 . .	Boundaries of 1920, i.e., without Khiva and Bukhara	21.4	134.2	20.8	113.4
	Boundaries up to 1939	21.7	136.8	20.9	115.9
1926 . .	Census of 17 December, boundaries up to 1939	21.7	147.0	26.3	120.7
1929 . .	Boundaries up to 1939	21.7	153.4	28.7	124.7
1937 . .	Boundaries up to 1939	21.7	163.8	46.6	117.2
1938 . .	Boundaries up to 1939	21.7	167.0	50.0	117.0
1939 . .	Census of 17 January, boundaries up to 1939	21.7	170.6	56.1	114.5
	Estimate for territory including western Ukraine, western Byelorussia, Moldavia, Lithuania, Latvia and Estonia	22.1	190.7	60.4	130.3
1950 . .	Estimate for 1 January[a]	22.4	178.5	69.4	109.1
1951 . .	Estimate for 1 January	22.4	181.6	73.0	108.6
1959 . .	Census of 15 January	22.4	208.8	100.0	108.8
1960 . .	Estimate for 1 January	22.4	212.3	103.8	108.5
1961 . .	Estimate for 1 January	22.4	216.1	108.3	107.8

[a] Beginning with this date, estimates are published for the beginning of each year.

With adjustments for present territory and interpolations for mid-year dates, the "urban" population, as officially defined, can be put roughly at 24 million in 1920, 34 million in 1930, 62 million in 1940, 71 million in 1950 and 106 million in 1960.

Census data of 1926, 1939 and 1959 also indicate the distribution of urban population (as administratively defined) by size class of locality. Of the total "urban" population, 67 per cent was that of localities of at least 20,000 inhabitants in 1926, 75 per cent in 1939 and 74.4 per cent in 1959. To arrive at estimates of population in localities of 20,000 and more inhabitants, it was considered that both the great wars have caused a temporary reduction of the proportion of population in larger towns and cities. The percentage of total "urban" population in localities of at least 20,000 inhabitants was probably markedly lower in 1920 than in 1926, and considerably lower also in 1950 than in 1959. With this consideration, and interpolations for other dates, it was estimated that the percentage may have amounted to 65 in 1920, 70 in 1930, 75 in 1940, 70 in 1950, and 75 in 1960.[z] On this basis, the population of localities of 20,000 and more inhabitants was derived from estimates of "urban" population (as officially defined) with results as shown in annexes IV and VI.

Similarly, changes in corresponding proportions were taken into account, from census data, to estimate the population of individual localities with 100,000 and more inhabitants for the stated mid-year dates. These estimates were verified by interpolations from census data for all individual cities of 100,000 and more inhabitants and found to be in approximate agreement for the dates of 1920 and 1930. For 1940 and 1960 the errors of estimate are comparatively small, since census data of 1939 and 1959 were available. For 1950, either an interpolation of data for 1939 and 1959, or a backward extrapolation of data for 1959 and 1965 was taken, whichever of the two figures was the smaller. Because of the hazards of inter-polation, the estimates for certain dates, notably 1950, are rather insecure.

Oceania

This area is composed of Australia and New Zealand, the eastern half of the island of New Guinea and numerous small islands of the Pacific Ocean, but not Hawaii, which is now part of the United States of America. For Australia and New Zealand, time interpolations were made from available census data. Because of variations over time in the delimitation of Australian agglomerations, comparability of the estimates is somewhat in doubt.

Towns exceeding 20,000 inhabitants originated in the smaller island territories only quite recently. Interpolations and extra-polations from available data suggest that only Suva, in the Fiji Islands, had more than 20,000 inhabitants in 1950. Other towns larger than 20,000 in 1960 may have been Papeete, in French Polynesia, and Nouméa, in New Caledonia, and the combined population of those three towns may then have been near 100,000.

East Asia

For East Asian countries the extent of coincidence of territorial administrative areas, for which statistics are published, with corresponding urban agglomerations raises various problems. The administrative systems of mainland China and China (Taiwan), Japan and the Republic of Korea and North Korea are basically similar in these respects.

Some chief cities, elevated to a status outside provincial or prefectural administration, are occasionally defined to occupy a wide territory. All other cities of some importance, of the rank of municipality or shi, have an administrative area which, upon occasion, can be considerably widened by decree; the area may be less extensive than the urbanized zone — and this may have been largely the case in Japan up to the 1920s and 1930s — but it may also be considerably more extensive, including surrounding stretches of rural territory.

Aside from such cities, the countries are divided into semi-rural, and more strictly rural administrative areas. The semi-rural areas,

[z] Account has been taken of the emergence and growth of numerous industrial small towns during certain periods in regions where there were new industrial developments.

chen in China, *machi* in Japan and *eup* in Korea, contain at least one centre, possibly a market town, which is of greater status than a village though not of the status of a city. The more strictly rural areas, *hsiang* in China, *mura* in Japan, and *myeon* in Korea, contain villages, but no such centre. Market towns or other centres which are not *shi* are believed to attain sizes sometimes in excess of 20,000, but as the statistics are published for the administrative areas, i.e., the centres and their surrounding villages, data on the sizes of such centres are generally not found.

Mainland East Asia

To obtain totals for mainland East Asia as a region, estimates for Hong Kong, Macao and Mongolia are added to those for mainland China. Recent data indicate that 85 per cent of the population of Hong Kong can be attributed to cities of at least 20,000 inhabitants. The proportion was the same in 1931 and has therefore been assumed as constant. The population of Macao is here considered as entirely urban. For Mongolia, only Ulan Bator could be estimated as greater than 20,000, though recently more towns may have surpassed that size.

Mainland China

The scarcity of accurate information on the population of mainland China must be emphasized. The most substantial data covering the entire territory are those of the 1953 census. Statistics obtained at other times in local or regional censuses and surveys have been fragmentary and of dubious accuracy. The United Nations estimates of the trend in the mainland's total population during 1920-1960 are very tentative.[aa] It follows that, whatever the degree of confidence with which the agglomerated population may be estimated, the residual estimates of rural and small-town population also can only be tentative.

Sources of information on population are more numerous for cities and towns than for rural areas, but the data are scattered in time and their degrees of accuracy and comparability can be variously interpreted.[bb] A major difficulty results from variations in the administrative status of diverse urban entities, and the consequent variation in coverage of agglomerated population, whether in territorial extent or the number of entities. These problems had to be weighed in consideration of the limited data available, in order to select those estimates which are most suitable for the purpose of the present study.

A detailed history of modifications in administrative status of cities and towns of the mainland of China could not be traced for the present purpose. It is evident that certain urban categories which prevailed under the Imperial régime[cc] were replaced by others in the 1920s under the Government of the Republic, and that further changes occurred in the 1950s under the Government of the People's Republic.[dd] Because of such changes, the sources providing data on urban places may be deficient by omitting towns of comparatively minor administrative status. At the same time, they may include an

excessive population in the case of municipalities of major administrative status (known as *shi*) in view of the extensive territory sometimes allocated under their jurisdiction.[ee] Among *shi*, that is cities of municipality status, Shanghai constitutes a notable exception since in that instance the urban administration does not appear to extend over any large area outside the heavily urbanized terrain. There is apparently a defined "urban" population which does not correspond to the population of municipalities as administratively defined, and there exists a series of data for "urban" population which covers the period from 1949-1956.[ff] Although no official definition of "urban" population has thus far been located in statistical literature, criteria considered in one official discussion give evidence that the concept does not differ greatly from the definition of agglomeration used for this report.[gg]

In the absence of a comprehensive administrative history, available data on cities and towns had to be selected and adjusted on the basis of tentative judgements derived from the quantitative comparison of their population figures and fragmentary knowledge of major events which might have had some bearing thereon. The possible effects of war-time damage to certain cities, or of shifts in the seat of central government, for instance, could be taken into consideration, though they could not be actually calculated. In view of the considerable uncertainty, the figures finally arrived at were greatly rounded. Such rounded figures indicate general orders of magnitude, but they are not accurate enough to permit any detailed comparison.

The development of these estimates involved several, partially overlapping, procedures:

(a) Estimates for the population of cities of 100,000 or more inhabitants for 1940-1960 were based on a recent study of the subject by M. B. Ullman,[hh] with further adjustments deemed proper for the present purpose;

(b) Estimates for the population of cities of 100,000 or more inhabitants for 1920-1940 were made on the basis of data in two earlier sources,[ii] with modifications and substitutions which seemed necessary for comparability with the 1940-1960 estimates;

(c) Estimates for towns in the 20,000-99,999 group from the several sources were compared but were found mutually inconsistent. The possible reasons of relative excess or deficiency in the several sets of data were examined, an intermediate set of data was selected, and time trends of population in localities of this size group were then assumed in relation to estimated trends in other size groups and by partial analogy with corresponding observations in India.

The resulting estimates for each size class at each date were then rounded to the nearest 2.5 million. Estimates for individual big cities were likewise greatly rounded. The three procedures are outlined in detail in the following discussion.

(1) The Ullman study, drawing on results of the 1953 census, official estimates for the end of 1957 and scholarly estimates of earlier dates,[jj] presented a summary of population estimates for about 200 municipalities as interpolated and extrapolated to the dates of mid-year 1938, 1948, 1953 and 1958. Noting the discrepancy between population totals for administratively defined urban places

[aa] *World Population Prospects as Assessed in 1963* (United Nations publication, Sales No.: 66.XIII.2).

[bb] The reliability of population statistics for mainland China and various administrative problems associated with data collection have been thoroughly reviewed in John S. Aird, *The Size, Composition, and Growth of the Population of Mainland China*, United States Bureau of the Census, Series P-90, No. 15 (Washington, D.C., 1961).

[cc] The major divisions of Chinese provinces are *hsien* (districts), but these used to be of varied rank, and so were the corresponding district capitals. Prior to 1911, the capitals of *chow* (large-sized *hsien*) and *fu* (large-sized *chow*) were more prominent than ordinary *hsien* capitals. After 1911, when all *chow* and *fu* were abolished to make a number of "first-class" *hsien*, the capitals of "first-class" *hsien* had more prominent rank than those of "second-class" and "third-class" *hsien*. The amount of surrounding territory allocated to the direct administration of cities tended to vary with the rank of these cities within the wider territorial administration. For nomenclature of those territorial divisions, such as the respective district capitals classified as *shi* (municipality), *tsun* (walled city) and *cheng* (market town) and various other terms, see *Tze-Hai* (a dictionary of Chinese words and phrases) (Shanghai, Chung Hua Book Co., 1948).

[dd] The criterion for the selection of listed data on sizes of urban places appears to have remained that of the administrative rank of municipalities, cities and so forth. The population contained within such places, however, exceeded the population of cities and market towns classified as "urban" by other criteria and reported to have totalled 77.3 million at the 1953 census (see State Statistical Bureau, "A discussion of problems pertaining to criteria for the division of the total population into urban and rural components" (1955), reprinted in *Hsin Hua Semimonthly*, 1956, No. 3, pp. 7-8).

[ee] Note is to be taken of the very extensive territory directly administered in 1953 under certain principal cities, e.g., 17,000 square kilometres under the city of Peking and 20,000 under Tientsin.

[ff] The original source for this series is *T'ung-chi kung-tso* (*Statistical Bulletin*), No. 11 (Peking), 14 June 1957. The series can also be found in United Nations, *Demographic Yearbook* for 1960 and various other years.

[gg] State Statistical Bureau, "A discussion of problems pertaining to criteria for the division of the total population into urban and rural components" (1955), reprinted in *Hsin Hua Semimonthly*, 1956, No. 3, pp. 7-8.

[hh] M. B. Ullman, *Cities in Mainland China: 1953 and 1958*, United States Bureau of the Census, International Population Reports, Series P-95, No. 59 (Washington, D.C., August 1961).

[ii] M. Stauffer, *Christian Occupation of China*, China Continuation Committee (Shanghai, 1922); and Shen Ju-Sheng, "The distribution of cities of China", *Journal of the Geographical Society of China* (Nanking), vol. IV, 1937, pp. 915-935

[jj] Sun Ming-Hsien and C. C. Fu, *Chinese Cities* (a government document). Republic of China, Ministry of the Interior (Nanking, 1948); Glenn T. Trewartha, "Chinese cities: numbers and distribution". *Annals of the Association of American, Geographers* (Washington, D.C.) vol. XLI, No. 4, December 1951, pp. 331-347; also Shen, *op. cit.*

at the 1953 census and the total of population defined as "urban" in other official sources, the author concluded that appreciable proportions of the population of areas under an urban administration were not part of the population defined as "urban" by other criteria, and this conclusion could be borne out with specific information on that point concerning four of the large municipalities which had been published in newspapers. He concluded that 83 per cent of the population in areas under an urban administration could be properly classified as "urban", and adjusted his estimates for all urban places in this proportion. For the purpose of the present study, the following additional adjustments were made:

(a) It was assumed that significant proportions of rural population were included only in the cities with municipality status, with the exception of Shanghai, but not in cities and towns of lower administrative status. With the exclusion of Shanghai, and allowance for the four municipalities on which there had been specific information, it was then calculated that only about 81 per cent of the population of the remaining municipalities should be rated as properly "urban" or, for present purposes, "agglomerated". The entire populations of cities and towns of lower order were considered as those of corresponding agglomerations;

(b) The distribution of population by size group of locality was adjusted taking into account these modifications;

(c) Interpolations and extrapolations were made with respect to the mid-year dates of 1940, 1950 and 1960.

(2) Though the dates of individual estimates were not fully documented and may have varied, it was assumed for simplicity that the estimates provided by Stauffer refer to the year 1918, and those by Shen to the year 1934. For all cities which attained at least 100,000 inhabitants in 1958 and for which data could be found in the various sources, graphs were made on logarithmic paper. Wherever the graphs showed no serious discontinuity, the interpolations for 1920, 1930 and 1940 were accepted. In the instances of discontinuity or markedly deviant trends, various judgements were made to determine whether particular figures were to be accepted, rejected, adjusted or arbitrarily substituted by others. Changes in administrative status, whether known or probable, were considered [kk] as well as other phenomena such as the events of war and regional variations in rates of economic or industrial development. It must be admitted that the choices made for many individual cities were often arbitrary and not founded on definite evidence, but the consequent errors of estimate were not necessarily systematic and may have been partly compensating in the resulting totals for particular size groups. The interpolated estimates were then grouped into two size categories: big cities of 500,000 or more inhabitants, and cities of 100,000-499,999 inhabitants.

(3) Special consideration had to be given to the estimates for towns smaller than 100,000. By coincidence, the estimates derived from the three sources of data cited above yielded nearly the same figure of about 18 million inhabitants in cities of the 20,000-99,999 category at three widely separated dates. As such a finding would have led to the very unlikely conclusion that urban population in this size category has not increased since 1918, an evaluation had to be made of possible biases in each of the three sources of data.

Ullman's data for 1953 included seventy-seven urban places in the 100,000-499,999 group and 318 in the 20,000-99,999 group, the latter only four times as numerous as the former; considering certain theoretical distributions, and actual observations in various large countries, it appeared probable that the latter number should be at least five times the former. Allowing for adjustments to Ullman's data as described in the above, and for an additional 100 urban places of an average size of around 30,000, it was possible to raise the esti-

mate of population in the 20,000-99,999 group in 1953 to a figure of about 18 million.

Stauffer's data for 1918, however, covering all 355 cities and towns of at least 25,000 inhabitants and a few others smaller than 25,000, led to an estimate for the combined 20,000-99,999 group (i.e., including a theoretically calculated small allowance for towns of 20,000-24,999) of approximately the same magnitude, namely, at least 18 million. From what is known about the growth of towns and cities in every part of the world, however, it was considered quite unlikely that the population of towns in the 20,000-99,999 group should have remained the same on the Chinese mainland from 1918 to 1953. A large growth in cities of at least 100,000 has been estimated, and the tentative estimates also made it appear that rural and small-town population must have increased significantly. There are some countries where towns in this size range have grown only at a comparatively moderate rate, but the consideration that they may not have grown at all in mainland China had to be ruled out as quite improbable. The seeming incongruity, it appeared, could be accounted for in the following way:

(a) Stauffer's data had been collected for the purposes of the activities of Christian missionaries. From that particular viewpoint, the population of a "town", considered as the field of activities for a missionary, could have comprised surrounding rural settlements accessible within a short radius, hence it might have been calculated larger than that contained only within the given agglomeration. The effect could have been the imputation of more than 20,000 (or 25,000) inhabitants to a considerable number of towns whose urban population, more strictly defined, was smaller than that size limit;

(b) Ullman's data may have excluded a considerable number of urban localities larger than 20,000 of comparatively minor administrative status, hence disregarded in the original source. The theoretical imputation of at least another 100 urban places of around 30,000 inhabitants each, as described in the foregoing, therefore was still quite insufficient.

For these reasons — and there might have been others which could not be explored — the alternative data provided by Shen for 1934 were assumed to represent the actual situation more correctly. The Shen estimates were for towns and cities estimated to have at least 50,000 inhabitants, including a population totalling 7,765,000 in the 50,000-99,999 group. Considering the somewhat numerous towns estimated at the exact rounded figure of 50,000, and that this exact figure may have resulted as often by rounding upwards as by rounding downwards, it seemed appropriate to reduce the total to 7.5 million. [ll] In accordance with theoretical distributions of localities by size, this total also appeared consistent with 18 million as an estimate for the combined group of localities with 20,000-99,999 inhabitants. Though this estimate lacks precision, and may fall somewhat short of the facts, it appeared less biased than those for 1918 and 1953. It was then assumed that 18 million might have been the population in localities of such size in the year 1934. Because of their probable biases the estimates for 1918 according to Stauffer and for 1953 according to Ullman were then disregarded. To arrive at estimates for the 20,000-99,999 group for dates before and after 1934, comparisons were made with data for other large countries, and the case of India appeared pertinent. Census data are available for India at decennial dates. An inference was made as follows:

(a) In India, towns in the 20,000-99,999 group had increased faster than the rural and small-town population, yet distinctly slower than the population of bigger cities;

(b) In mainland China, bigger cities had grown faster, on the whole, than in India; but rural and small-town population apparently had grown much slower in China than in India;

[kk] Stauffer, for instance, gave a population of 1.6 million for Canton about 1918, at that time seat of the Government of the Republic. Since this estimate was much larger than others for Canton either before or after that date, it had to be assumed that a large administrative territory was then included, and another estimate was substituted.

[ll] For comparison it was found that the 50,000-99,999 group comprised 7.3 million according to Stauffer's data referring to 1918, and only 5.5 million according to Ullman's data for 1953. The deficiency in Ullman's data, therefore, may have been greater than the excess in Stauffer's earlier data. The estimate for 1934, therefore, may err on the low side.

(c) The comparison of rates and magnitudes made it appear appropriate to assume that the percentage of total population contained in the 20,000-99,999 group could have risen with similar speed in both countries, though perhaps somewhat more slowly in China;

(d) In India, according to the decennial censuses, localities in that size group contained about 3.3 per cent of the total population in 1920, 3.9 per cent in 1930, 4.4 per cent in 1940, 4.9 per cent in 1950 and 5.9 per cent in 1960;

(e) If, as estimated, the corresponding percentage may have been

near 3.6 in China in 1934, it could have been about 3.25 in 1920, 3.5 in 1930, 3.75 in 1940, 4.0 in 1950 and 4.25 in 1960. These percentages were applied to the tentative estimates of the total population of the Chinese mainland, and the population in the size group 20,000-99,999 was estimated accordingly for the several dates. It must be admitted that these estimates are very insecure, and it is possible that they all err on the low side.

When all the estimates were brought together and rounded the results were as follows (millions):

Size of locality	1920	1930	1940	1950	1960
Total population	475,000	500,000	530,000	560,000	650,000
20,000-99,999	15,000	17,500	20,000	22,500	27,500
100,000-499,999	5,000	7,500	10,000	12,500	15,000
500,000-2,499,999	5,000	7,500	7,500	12,500	30,000
2,500,000 and over	—	—	3,750[a]	5,000[a]	15,000[b]

[a] Shanghai only.
[b] Shanghai, Peking and Tientsin.

Japan

In Japan censuses have been taken every five years since 1920, and also in the years 1946 and 1947. In the census of 1960, and again in 1965, a special definition was introduced for agglomerated areas, referred to in English as "densely inhabited districts" (DID). DIDs are delineated during preliminary map work for censuses and consist of adjacent census enumeration districts of high density whose combined population is greater than 5,000 inhabitants. Such a definition is close to the standards sought in this report, except that no single DID includes the territory of more than one administrative unit (shi, machi or mura). A single agglomeration which extends over two administratively independent units is divided into two separate DIDs if each of the two separate parts contains at least 5,000 inhabitants, and population at the peripheries of a DID are excluded by definition if the administrative unit contains less than 5,000 inhabitants. Such circumstances result in overestimation of the number of small agglomerations and underestimation of the total agglomerated population.

At all censuses, data were tabulated in terms of types of administrative areas, namely, shi (municipalities including territory under the jurisdiction of a city or town, invariably with at least 20,000 inhabitants), machi (rural areas containing market towns which serve as administrative centres) and mura (other rural areas). For dates up to 1950, the shi data were used as estimates of agglomerated population.[mm] Note was taken, however, of the continuous enlargement of shi areas in the successive census intervals between 1920 and 1950. Special legislation of 1953 provided for a rapid consolidation of both urban and rural administrative units in much larger areas than previously. It was difficult, therefore, to estimate to what extent the gradual, and then very sudden, expansions of shi areas reflected corresponding expansions of areas of agglomerated settlement. Considerations such as increases in train and bus transportation at different periods, war-time destruction and the flight from cities and gradual return migration (as reflected in the comparison of census data for 1945, 1946, 1947 and 1950) and the known rapid urbanization of recent years were held in view. The quantitative relationship between these indicators and the presumable territorial spread of agglomerations, however, could not be established. It appeared reasonable to assume that shi boundaries of 1920 were often too narrow to contain the corresponding agglomerations, but that successive boundary adjustments then brought those boundaries into

closer coincidence with the limits of the respective areas of compact settlement. On the other hand, it was evident that the territorial reorganizations of 1953 have resulted in shi areas which were often much larger than the agglomerated areas and therefore also extended over considerable portions of land under rural forms of settlement. By 1960, the combined land area of all Japanese shi was nearly sixty times as extensive as it had been in 1920. Whereas urbanization had also progressed rapidly, the population contained in agglomerations could not have grown so much.

In an attempt to approximate a time series of roughly comparable estimates of agglomerated population, the available data were used as follows:

(a) For 1960, with the exception of areas considered part of the Tokyo-Yokohama and Osaka agglomerations, all DIDs larger than 20,000 inhabitants were treated as agglomerations;

(b) For 1940 and 1950, also with these two exceptions, all shi areas containing at least 20,000 inhabitants within the boundaries at the given dates were treated as agglomerations;

(c) As part of the 1935 census, data of previous censuses had been retabulated to correspond to administrative areas as effective in 1935. Again with the exception of Tokyo-Yokohama and Osaka, the shi data for 1920 and 1930 as tabulated in 1935 were treated as agglomerations;

(d) For all dates, the population of the Tokyo-Yokohama agglomeration was estimated as the equivalent of the combined shi populations of the three prefectures of Chiba, Tokyo and Kanagawa; and the population of the Osaka agglomeration was estimated as the equivalent of the combined shi populations contained within the prefecture of Osaka. These two exceptions were made in the estimating procedure as it appeared difficult to arrive at a comparable time series for those two large agglomerations by other means. Care was taken to avoid a duplicate count of shi, or DIDs, contained within those two agglomerations as estimated.

Other East Asia (Korea, China (Taiwan) and Ryukyu Islands)

In Korea, China (Taiwan) and Ryukyu Islands censuses have been taken periodically except that no census data have become available for North Korea since 1944. As in Japan, urban population during earlier decades could be distinguished as that of shi, though more recently the administrative systems have become modified. It is possible that the time comparison of the data suffers from similar deficiencies as the shi data for Japan, delimited at each of the successive dates. Accordingly, the estimated growth of urban population in the three countries may be somewhat exaggerated. No attempt was

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[mm] Although some machi had more than 20,000 inhabitants, it was assumed that in most cases the machi comprise many separate localities with no single centre of 20,000 or more inhabitants. For this reason, the larger machi have not been included in the agglomerated population totals.

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made for present purposes to substitute modified data, as has been done with data for Japan.

For North Korea recent estimates of total population and of the population of the capital city (Pyongyang) have been published, but no data of urban population, or for other cities. To arrive at estimates of urban population in North Korea in 1950, it was assumed that towns and cities continued growing at rates as observed during 1940-1944. To arrive at estimates for 1960, it was assumed that, subsequent to the hostilities, when growth was temporarily halted, North Korea's urban population may have increased at rates comparable to those noted in census data for the Republic of Korea. Naturally, those estimates are very tentative.

In the Ryukyu Islands an almost sudden increase in *shi* population is noted in the 1950s. It is possible that with the cessation of migration to Japan a considerable urbanization occurred in these islands.

South Asia

A large part of the agglomerated population of South Asia is that of India and Pakistan, and this is comparably well documented by the series of decennial censuses. In Indonesia, where agglomerated population is also large, the long census interval from 1930 to 1961 leads to insecure interpolations for 1940 and 1950. Repeated censuses of Turkey, Burma, Malaysia, Singapore, Ceylon and Israel provide a good basis for urban population estimates in the intervening period, but in the Philippines and Thailand the censuses leave important problems of non-comparability in definition of urban areas. In Iran, Iraq, North Viet-Nam, Syria, Cambodia, Jordan and Nepal census data have been provided only at recent dates. For earlier dates in these countries, and for all dates in a few other countries, most of them with only small urban populations, it was necessary to consult diverse sources such as almanacs, gazetteers etc. For recent dates official estimates for cities of at least 100,000 inhabitants were generally available.

Middle South Asia

Both for India and Pakistan population data by size class of community have been published comparably from censuses taken every ten years at dates such as 1921, 1931 etc. The data were interpolated for dates such as 1920, 1930 etc., and the figures were rounded. For India, but not for Pakistan, consistent census data were also published referring to the agglomeration areas corresponding to some of the big cities, and these are in terms of constant areas as defined in 1951; these data were likewise interpolated for the needed dates. For 1951 and 1961, Indian census data on big agglomerations are also provided for areas as expanded in 1961, and these wider areas were referred to in the present estimates for 1960.

For Iran, in addition to census data for 1956, official estimates for cities in 1960 have been supplied, and data for numerous towns in 1963 have been published from a survey in that year. For earlier dates, *Stateman's Yearbook* for 1922, 1930, 1940 and 1942 was consulted providing approximate estimates for numerous towns, though without a precise indication of the dates for the estimates. For towns missing in these lists, estimates for corresponding dates could be made on the assumption that these may have grown at similar rates.

In Ceylon, censuses of 1911, 1921, 1931, 1946, 1953 and 1963 provide the basis for suitable interpolations, and use was made of the recent census delimitation of Colombo as a metropolitan area. The narrow administrative limits of municipalities in which, apparently, little change has occurred, make it doubtful whether agglomerated populations for recent dates are fully measured by the censuses.

Censuses of Nepal in 1952-1954 and 1961 provide the requisite information, but for earlier dates only rough conjectures could be made. For Afghanistan, estimates for some cities at various dates were found in issues of *Stateman's Yearbook*, and *Aperçu* of the International Statistical Institute, from which interpolations could be made, but it seemed probable that various towns larger than 20,000 inhabitants had not been included in these sources, and therefore some adjustments were made.

South East Asia

For Indonesia, census data on cities and towns as of 1930 and 1961 were used, together with census data for principal cities as of 1920, and estimates for some of the large cities for 1952. Estimates for 1920 were supplemented by estimates for smaller cities and towns assuming that these also grew at rates similar to cities for which 1920 and 1930 data were available. Estimates for 1940 and 1950 are very hazardous, as these depend on interpolations for a long intercensal period. The comparability of census data for 1930 and 1961, moreover, is in doubt, as the administrative areas of towns and cities were defined as *kota* at the earlier date and as *pradjakota* in 1961. The population of cities (100,000 and over), according to the data, constituted 61 per cent of the urban population (20,000 and over) in 1930, but 88 per cent in 1961; hence it is possible that the listing of smaller cities or towns was not so complete in the 1961 census data.

In the Philippines, a "Metropolitan Manila" was defined in the census of 1948, and the population of this agglomeration within these boundaries could be determined from data for component units at all census dates from 1918 to 1960. Other agglomerated population in the Philippines was identified by application of certain density standards and evaluation of census maps[nn].

In the Thailand censuses of 1947 and 1960 data for the cities of Bangkok, Chiengmai and Thonbury, and for numerous towns (municipalities) could be found. Only four of the latter had slightly more than 20,000 inhabitants in 1947, so that it could be assumed that they were smaller than 20,000 in 1940 and earlier dates. The census population of Bangkok city in 1929 was also obtained, and use could be made of official estimates for 1952. Estimates for the three cities in 1920 are rough extrapolations and those for 1930 and 1940 rough interpolations. It is possible that some towns are administratively so narrowly bounded that they do not fully reflect the size of corresponding agglomerations.

1960 census data for North Viet-Nam and recent official estimates for the Republic of Viet-Nam provide data for cities. Official estimates for various earlier dates were obtained from *Stateman's Yearbook* and the *Columbia Lippincott Gazetteer* including some data for other towns in Viet-Nam. The estimates made for present purposes, based on such few data, are inevitably conjectural and probably incomplete. According to the 1962 census of Cambodia, aside from the capital city of Phnom-Penh, there were three towns larger than 20,000 and it could be presumed that in 1950 there was only one, and in 1940 there were none. Estimates of the population of Phnom-Penh in 1931 and 1950 were also obtained, and interpolations and extrapolations were made accordingly. For Laos, only recent estimates for the city of Vientiane were found, though other towns may also have been larger than 20,000, and earlier estimates for Vientiane could be made by assuming a certain rate of growth. Because of the many uncertainties, estimates for North Viet-Nam and the Republic of Viet-Nam, Cambodia and Laos must be regarded as conjectural.

For Burma, data on cities and towns of at least 20,000 inhabitants were found in national censuses of 1921, 1931 and 1941 and the urban census of 1953, and official estimates for cities (100,000 and over) have also been supplied for recent dates. The data were adequate for interpolations to the required dates, including an extrapolation for towns to 1960.

For Malaya and Singapore, censuses of 1921, 1931, 1947 and 1957 provided adequate data for interpolations and extrapolations to the required dates. In Sabah, Sarawak and Brunei recent data show four

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[nn] The situation in the Philippines is complex. "Urban" population is officially defined to include the population of "chartered cities" and entire *municipios* which serve as provincial capitals, as well as *poblaciones* which are the centres in the remaining *municipios*. Most of the latter, however, are smaller than 20,000. In 1960, about two thirds of the "chartered cities" and capital *municipios* had average settlement densities high enough so that they could be considered as entirely agglomerated. In other instances, however, these administrative units evidently often included extensive rural territories. In these cases, only the population of component *poblaciones* and selected nearby villages were treated as agglomerated population. Since the earlier censuses did not include data for *poblaciones*, it was assumed that the ratios between agglomerated population and that of "chartered cities" and capital *municipios* determined in 1960 also pertained to other dates.

towns larger than 20,000 but probably only Kuching, for which there is also a census figure for 1947, was larger than 20,000 in 1950 or earlier. The capital of Portuguese Guinea was in excess of 20,000 in 1960, possibly also in 1950, though perhaps not at earlier dates.

South-West Asia

Turkish censuses taken in 1927 and every five years beginning in 1935 provide comparable data on all cities and towns. Except for interpolations to 1930, census data could be used directly. Estimates for eight chief cities as of 1920 were found in *Stateman's Yearbook* and the *Aperçu* of the International Statistical Institute, indicating a considerable decline from 1920 to 1927; it is known that these cities had many Greek residents in 1920 who thereafter left for Greece. The population of other cities and towns in 1920 was then estimated to have been roughly the same as in 1927.

For Israel and Jordan, census data for Palestine in 1922 and 1931, Israel censuses of 1948 and 1961 and Jordanian censuses of 1952 and 1961 provided fairly adequate data, except for hazardous interpolation with respect to 1940. For Cyprus also use could be made of recurrent census data.

For Syria there were data of censuses in 1921/22, 1935, 1943 and 1960. The earlier censuses were enumerations by unconventional methods but may have succeeded fairly well in determining urban populations. For Iraq, data on principal cities only were found in the 1957 census, and for these cities there are also more recent official estimates; it was then assumed that smaller towns may have been in similar proportion to cities as in Syria, and that towns and cities may have grown at similar rates in the past. For both countries, and also for Lebanon, estimates of the population of certain cities or towns were also found in scattered sources, such as early issues of Germany's *Statistisches Jahrbuch* (giving estimates for cities 100,000 and over for dates such as 1920, 1930 and 1940), *Stateman's Yearbook*, gazetteers etc.

For countries of the Arabian Peninsula, except Aden, Bahrain and Kuwait where censuses have been taken, only the roughest conjectures could be made from widely scattered data in a variety of sources. Except at recent dates, most of the urban localities were probably small.

Latin America

In most countries of Latin America censuses have been taken repeatedly, and with varied frequency or periodicity, hence most estimates of urban population could be interpolated from census data. In the two countries of largest agglomerated population, however, there occurred a long interval between successive censuses, namely, from 1920 to 1940 in Brazil and from 1914 to 1947 in Argentina. Hence, the interpolations with respect to 1930, in regard to the two South American regions, may contain much error. The error may be larger in Brazil, where a simple interpolation was made, than in Argentina, where the census of 1935 for Buenos Aires was also taken into account. At the time that the estimates were being prepared, the latest census data on urban population were not yet available for some countries, for example, the census of Colombia (1964), the census of Ecuador (1962) and several provincial volumes of the census of Argentina (1960).

For the largest cities of most Latin American countries, recent censuses have also provided data for more extensive statistical units sometimes referred to as "metropolitan area", "greater city" etc. Because of uncertainties concerning the comparability of their delimitation, the disposition of territory comprised in those units and the population densities in constituent minor administrative units were examined on maps and, as deemed necessary, modifications were introduced in a few instances. No source was found in which the major cities of Brazil were defined as wider agglomerations, and in this instance maps were examined to delimit contours comparably with major cities elsewhere in Latin America. Given the fact that most of these cities have grown with great speed and have come to occupy rapidly widening territories under agglomerated forms of settlement, it was considered suitable to adopt rather wide outer

limits for the composite statistical areas to be compared, so as to reflect the rates of population growth more accurately. Areas previously under rural forms of settlement were inevitably included, but the proportionate error of estimate may not be very large in view of the comparatively low or moderate rural settlement densities which prevailed.[oo]

Tropical South America

A majority of the urban population of this region is that of Brazil where censuses have been taken decennially except in 1930. In Colombia, Venezuela and British Guiana, censuses have been taken repeatedly, but only two censuses were available this century in Peru (1940 and 1961) and Bolivia (1900 and 1950), and one only in Ecuador (1950), making some of the interpolations or extrapolations hazardous, while some estimates had to depend also on analogy and conjecture.

For the cities of Lima, Bogotá and Caracas, "metropolitan areas" have been variously defined, and the estimates correspond to the population of such areas. In so far as the metropolitan areas of those chief cities also comprise other towns and cities, corresponding subtractions have been made in the totals of population in localities of 20,000-99,999 and 100,000-499,999 inhabitants which, so to speak, were absorbed in those larger urban composites. For Caracas, the area has been defined in the national censuses; for Lima, in addition to the defined "metropolitan area", the population of Callao has also been included; for Bogotá, the population is that of the Districto Especial, created in recent years. For Rio de Janeiro and São Paulo, use has been made of "metropolitan areas" as defined in the study of Davis, though perhaps this corresponds to a rather wide delimitation of those areas as compared with areas for other cities. Since the same area was used as a basis for population estimates from 1920 to 1960, the estimates for the earlier dates are probably excessive since it must be presumed that the network of transportation and effective communication was then less wide and intensive, and the areas then included much population which should more properly have been classified as rural.

Temperate South America

Censuses have been taken at mostly decennial intervals in Chile, but there was no national population census in Argentina between 1914 and 1947 nor in Uruguay between 1908 and 1963. Because of the long time intervals, interpolations are very hazardous for these countries. For Argentina, where growth in total population has fluctuated, estimates of agglomerated population in intervening years were obtained by a ratio method, account being taken also of the census of Buenos Aires in 1935. In Paraguay, use was made also of an incomplete census of 1937. The latest census data are those of 1960 for Argentina and Chile, 1962 for Paraguay and 1963 for Uruguay.

The interpolated estimates for towns and cities are according to their administrative limits, except that the Chilean censuses have defined a composite area of Greater Santiago, and those of Argentina (1947 and 1960) an expanded area referred to as Greater Buenos Aires. For the latter city, the estimates used here refer to the constant area as defined in 1960, except for two districts where population density was not very high.

Mainland Middle America

Decennial censuses have been taken in Mexico and Panama, and repeated censuses at varied intervals also in the remaining countries of the region, but the detailed data of some of the earlier censuses could not be readily secured and some estimates were made by assuming rates of growth comparable to those found in censuses of neighbouring countries. For the cities of Panama, and San José in Costa Rica, estimates were made for urbanized areas expanding with time.

[oo] In a few instances use was made of "metropolitan areas" as delimited in the study by K. Davis (see footnote *a*) with respect to census dates near 1950 or earlier. Whereas those areas may have been more extensive at the time than the areas under agglomerated forms of settlement, the continuing expansion of the latter made it appear that the comparatively generous limits adopted by K. Davis were not necessarily too wide for the present estimates with respect to more recent dates.

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Mexico City, as an expanding metropolis, was estimated as the equivalent of the urban component of the Federal District's population as defined at each census.

Caribbean Islands

Censuses at intervals no greater than fifteen years have been taken in Cuba, the Dominican Republic and Puerto Rico, and repeatedly also in Jamaica and most of the region's smaller islands, but for Haiti there exist only the census data for 1950 and fragmentary data of an incomplete census of 1918/19. A few official estimates have been found for Port-au-Prince, Haiti's chief city, at various dates. For present purposes, the population of the metropolitan area of Havana, Cuba, was taken to be that defined in the 1953 census.

Africa

For purposes of comparison, Africa has been divided into a Northern region, a Tropical region,[pp] and a Southern region. Whereas censuses have been taken periodically in South Africa and some countries of Northern Africa, this has not been the case in most of the Tropical countries for which, in the absence of dependable or comparable population statistics, only very tentative estimates of the past trend in total population can be made. Data on the population of towns and cities have been obtained with somewhat greater frequency than statistics on total population, and presumably also with considerably greater accuracy, but even here many interpolations were necessary.

Northern Africa

Censuses were taken at fairly regular intervals throughout the period in the United Arab Republic, Algeria and Tunisia, and in those parts of Morocco previously in the French Zone. In Libya censuses have also been taken repeatedly but owing to administrative changes comparability between earlier and more recent data is in doubt. In the Sudan a census was taken only in 1956, but some population estimates for the largest towns in earlier years were found and it was conjectured that these towns grew at rates similar to those of towns in neighbouring areas. Since no census was taken during the 1940s in several countries of the region, the interpolated data for 1940 are especially subject to error.

Tropical Africa

In considering the adequacy of documentation concerning urban centres in this region, it may be noted that agglomerations of appreciable size have not been very numerous in Tropical Africa until rather recently. In 1920, for instance, only two cities (Ibadan and Lagos, both in Nigeria) seem to have surpassed 100,000 inhabitants. These cities were also the only two which can be estimated to have surpassed the size of 500,000 by 1960. But such cities are now becoming more numerous, since a number of apparently fast-growing cities are

estimated to have surpassed 300,000 and 400,000, or to have attained almost 500,000 by the year 1960. Many cities and towns which have recently become relatively large had fewer than 20,000 inhabitants in the 1920s or 1930s.

Under the colonial administrations, censuses or enumerative surveys were carried out with some frequency. Whereas these yielded rather unreliable estimates of the population in the rural areas of the respective countries, it can be generally presumed that they were at least fairly successful in urban centres. More recently, censuses and surveys of a modern type have been undertaken in most countries of the region. Almost three fourths of the agglomerated population of Tropical Africa in 1960 was contained in seven countries, namely, Nigeria, Democratic Republic of the Congo, Ghana, Ethiopia, Senegal, Southern Rhodesia and Zambia; except for Ethiopia, the population of urban centres in these countries has been documented repeatedly in the course of the past several decades. In most of the remaining twenty-seven countries of the region, centres larger than 20,000 inhabitants are not yet very numerous and their combined populations not yet very large.

Aside from recent censuses, earlier data concerning cities and towns of countries in the region could be found in certain collective sources of the administering countries; for some countries, however, statistics had to be taken from less conventional sources.[qq] In many instances, earlier data for individual towns could be traced, to be included in the present set of estimates whenever the interpolation yielded at least 20,000 inhabitants; in some instances, arbitrary selections had to be made among seemingly inconsistent figures. Since the urban populations at the time could not have been large, absolute errors of estimate cannot be very considerable despite much uncertainty of detail.

Southern Africa

This region comprises, in addition to the Republic of South Africa, also the territories of Lesotho, Botswana, Namibia, and Swaziland, but except recently in Namibia no town in those territories had attained 20,000 inhabitants by 1960. The periodic censuses of South Africa have yielded consistent information, and the present estimates represent simple interpolations for mid-year dates.

[qq] For the countries previously under British administration extensive data were published in Robert R. Kuczynski, *Demographic Survey of the British Colonial Empire*, three volumes (London, Oxford University Press, 1948). The French statistical services also provided collective data for territories under French administration, often in the form of yearbooks. See, for example, *Annuaire statistique de l'Union française outre-mer, 1939-49, 1949-54* (Paris); Haut Commissariat de l'Afrique occidentale française, *Afrique occidentale française* (Paris, 1957); and Institut national de la statistique et des études économiques, *Données statistiques* (Paris, various issues). In Portuguese territory (Mozambique, Angola, Portuguese Guinea) administrative enumerations were held every ten years, though methods were very summary. Enumerations in the Belgian Congo were on a sample basis (e.g., Congo, Service des statistiques, *Tableau général de la démographie congolaise*; Enquête démographique par sondage, 1955-1957, Léopoldville, 1961). Some data for Somalia and Ethiopia were provided in Italian sources. Additional data for various countries were found in the *Columbia Lippincott Gazeteer of the World* (New York, Columbia University Press), *Stateman's Yearbook* (London, various editions), and in encyclopædias.

[pp] In *World Population Prospects as Assessed in 1963*, the regions of Western, Eastern and Middle Africa were distinguished. Because of the small urban populations in the past, the distinction of three regions did not appear useful for the present purpose.

TABLES OF ESTIMATES FOR INDIVIDUAL COUNTRIES

Estimates of urban population and agglomerated population presented in this annex were developed by data and methods which have been explained in the text and in annexes II and III. The figures for total population conform to the past estimates and the "medium" future estimates shown in a recent study of world population trends, with one exception.[a] In each of the tables that follow it was necessary to omit countries with small urban populations; however, no countries with agglomerated population larger than 200,000 are believed to have been omitted, and the omitted populations may amount to no more than 4 per cent of the combined agglomerated population of the world.

[a] *World Population Prospects as Assessed in 1963* (United Nations publication, Sales No.: 66.XIII.2). In that publication, an adjusted estimate was made for Pakistan in 1960. In order to maintain consistency with the time series for preceding years it was preferred to retain the estimate as presented in "Provisional report on world population prospects as assessed in 1963" (ST/SOA/SER.R/7, 1964).

Table 41. Estimated agglomerated population, 1920-1960 (all countries estimated to have had at least 200,000 inhabitants in localities with 20,000 or more in 1960)
(Millions)

Country	1920	1930	1940	1950	1960
Europe					
United Kingdom	27.9	31.5	33.3	34.8	36.0
Germany (Federal Republic of)	16.3	17.8	20.3	21.9	27.5
Italy	11.9	14.4	16.7	19.2	23.1
France	14.2	16.2	18.4	18.6	21.9
Spain	5.5	7.1	9.2	11.0	13.7
Poland	4.8	6.2	7.5	6.2	9.2
Eastern Germany[a]	5.8	6.4	7.4	7.2	7.0
Netherlands	3.1	3.8	4.6	5.6	6.9
Belgium	3.7	4.1	4.2	4.4	4.7
Romania	1.4	2.0	2.8	2.9	3.9
Hungary	2.5	2.9	3.3	3.2	3.8
Czechoslovakia	2.2	2.8	3.1	2.8	3.4
Yugoslavia	0.9	1.2	1.6	2.1	3.3
Sweden	1.4	1.6	2.0	2.3	3.0
Greece	0.9	1.7	1.8	2.3	3.0
Austria	2.3	2.4	2.5	2.6	2.7
Portugal	1.2	1.5	1.8	2.1	2.5
Denmark	1.0	1.2	1.6	1.9	2.2
West Berlin	2.6	2.9	2.9	2.1	2.2
Bulgaria	0.4	0.7	1.0	1.4	2.1
Finland	0.5	0.7	0.9	1.2	1.7
Switzerland	1.0	1.1	1.2	1.4	1.7
Norway	0.6	0.7	0.8	1.0	1.2
Ireland	0.6	0.6	0.7	0.7	0.8
Albania	0.0	0.1	0.1	0.1	0.3
Northern America					
United States	44.9	58.3	61.8	77.8	105.7
Canada	3.0	4.1	4.8	6.4	9.6
Soviet Union	16.0	24.0	47.0	50.0	78.0
Oceania					
Australia	2.7	3.2	3.8	4.8	6.8
New Zealand	0.4	0.6	0.7	1.0	1.4

[a] Including East Berlin.

Table 41 (continued)

Country	1920	1930	1940	1950	1960
East Asia					
China (mainland)	25.0	32.5	40.0	52.5	87.5
Japan	13.0	18.5	27.5	31.2	42.9
Korea	0.8	1.4	3.0	6.2	10.2
China (Taiwan)	0.3	0.6	1.2	1.8	3.1
Hong Kong	0.6	0.7	1.5	1.9	2.6
Ryukyu Islands	0.1	0.1	0.1	0.2	0.4
South Asia					
India	14.7	18.7	27.2	41.7	59.4
Indonesia	1.5	2.7	4.6	6.9	10.2
Pakistan	1.9	2.6	4.0	5.9	9.6
Turkey	2.5	1.8	2.4	3.0	5.9
Iran	0.9	1.4	2.2	3.5	5.4
Philippines	0.9	1.4	2.0	3.1	4.6
Viet-Nam	0.3	0.5	0.9	2.2	4.2
Thailand	0.5	0.6	0.9	1.2	2.4
Burma	0.7	0.9	1.1	1.6	2.3
Iraq	0.5	0.6	0.8	1.2	2.2
West Malaysia	0.3	0.4	0.6	1.0	1.7
Syria	0.4	0.5	0.6	1.0	1.5
Israel	0.0	0.1	0.3	0.7	1.3
Singapore	0.4	0.4	0.6	0.9	1.2
Ceylon	0.5	0.5	0.7	0.9	1.2
Afghanistan	0.2	0.2	0.3	0.4	0.8
Saudi Arabia	0.3	0.3	0.3	0.4	0.8
Lebanon	0.2	0.2	0.2	0.3	0.6
Cambodia	0.1	0.1	0.1	0.3	0.5
Jordan	0.1	0.1	0.1	0.3	0.5
Latin America					
Brazil	3.6	4.6	6.6	10.8	20.3
Mexico	1.6	2.4	3.5	6.1	12.2
Argentina	3.2	4.5	5.8	8.8	11.4
Colombia	0.4	0.7	1.3	2.5	4.8
Chile	1.0	1.4	1.8	2.5	4.0
Venezuela	0.3	0.4	0.7	1.7	3.3
Cuba	0.7	1.0	1.4	1.9	2.7
Peru	0.3	0.6	0.9	1.4	2.6
Uruguay	0.4	0.6	0.8	1.0	1.4
Ecuador	0.2	0.3	0.4	0.6	1.1
Bolivia	0.3	0.3	0.4	0.6	0.8
Puerto Rico	0.1	0.2	0.4	0.6	0.7
Guatemala	0.1	0.2	0.2	0.3	0.6
Dominican Republic	0.0	0.1	0.1	0.2	0.6
El Salvador	0.1	0.1	0.2	0.2	0.4
Paraguay	0.0	0.1	0.1	0.2	0.4
Jamaica	0.1	0.1	0.2	0.3	0.4
Panama	0.1	0.2	0.2	0.2	0.4
Nicaragua	0.0	0.1	0.1	0.2	0.3
Costa Rica	0.1	0.1	0.1	0.2	0.3
Haiti	0.1	0.1	0.1	0.2	0.3
Honduras	0.0	0.0	0.1	0.1	0.2
Africa					
United Arab Republic	2.3	3.0	4.1	6.3	9.5
South Africa	1.2	1.8	2.6	3.9	5.7
Nigeria	0.8	1.1	1.7	2.6	5.5
Morocco	0.5	0.8	1.2	1.9	2.8
Algeria	0.6	0.8	1.1	1.3	2.7

Table 41 *(concluded)*

Country	1920	1930	1940	1950	1960
Africa (continued)					
Congo (Democratic Republic of)	0.1	0.2	0.2	0.4	1.2
Tunisia	0.2	0.3	0.5	0.7	0.9
Ghana	0.1	0.2	0.2	0.3	0.8
Senegal	0.1	0.2	0.3	0.4	0.7
Ethiopia	0.2	0.2	0.3	0.4	0.7
Sudan	0.2	0.3	0.4	0.4	0.6
Zambia	0.0	0.0	0.1	0.2	0.5
Southern Rhodesia	0.1	0 1	0.2	0.3	0.5
Kenya	0.0	0.0	0.1	0.2	0.4
Madagascar	0.1	0.1	0.2	0.3	0.4
Angola	0.0	0.0	0.1	0.2	0.4
Libya	0.1	0.1	0.2	0.2	0.3
Ivory Coast	0.0	0.1	0.1	0.1	0.2
Cameroon	0.0	0.0	0.0	0.1	0.2
Mauritius	0.0	0.1	0.1	0.1	0.2
United Republic of Tanzania	0.1	0.1	0.1	0.1	0.2

Table 42. Estimated population in cities of 100,000 or more inhabitants, 1920-1960 (countries with at least one such city in 1960)

(Millions)

Country	1920	1930	1940	1950	1960
Europe					
United Kingdom	21.9	23.9	25.0	26.0	26.1
Germany (Federal Republic of)	13.3	14.4	16.5	16.9	20.9
France	9.0	11.2	12.2	12.9	15.7
Italy	5.0	6.7	8.1	9.5	12.0
Spain	2.5	3.5	4.8	6.6	8.4
Poland	2.6	4.0	5.0	4.1	6.0
Netherlands	1.6	2.1	2.6	3.1	3.8
Belgium	3.1	3.4	3.4	3.6	3.8
Eastern Germany[a]	3.7	4.0	4.6	3.8	3.7
Romania	0.4	0.9	1.4	1.5	2.7
Austria	2.0	2.1	2.0	2.1	2.3
Hungary	1.2	1.6	1.9	1.8	2.2
West Berlin	2.6	2.9	2.9	2.1	2.2
Greece	0.6	1.2	1.3	1.6	2.1
Portugal	1.1	1.3	1.5	1.8	2.1
Czechoslovakia	1.3	1.6	1.8	1.7	1.9
Yugoslavia	0.2	0.5	0.8	1.0	1.6
Sweden	0.8	1.0	1.2	1.5	1.6
Denmark	0.7	0.8	1.1	1.4	1.6
Bulgaria	0.2	0.3	0.4	0.7	1.1
Switzerland	0.6	0.7	0.7	1.0	1.1
Finland	0.2	0.2	0.4	0.7	0.9
Norway	0.5	0.5	0.6	0.6	0.7
Ireland	0.4	0.5	0.5	0.6	0.7
Albania	...	...	...	...	0.1
Luxembourg	...	...	...	...	0.1

[a] Including East Berlin.

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Table 42 *(continued)*

Country	1920	1930	1940	1950	1960
Northern America					
United States	37.2	49.9	52.3	67.1	92.1
Canada	2.2	3.0	3.5	5.3	7.8
Soviet Union	8.0	14.0	30.0	30.0	51.0
Oceania					
Australia	2.2	2.8	3.4	4.3	6.0
New Zealand	0.4	0.4	0.6	0.6	0.9
East Asia					
China (mainland)	10.0	15.0	20.0	30.0	60.0
Japan	10.0	14.4	21.7	23.1	33.2
Korea	0.4	0.6	2.0	4.5	7.5
China (Taiwan)	0.2	0.2	0.8	1.4	2.9
Hong Kong	0.6	0.7	1.5	1.9	2.6
Ryukyu Islands	...	...	...	...	0.2
Macao	...	0.2	0.4	0.2	0.2
Mongolia	...	...	...	...	0.2
South Asia					
India	6.4	7.9	13.4	23.1	34.0
Indonesia	0.8	1.6	3.2	5.6	9.1
Pakistan	0.9	1.5	2.3	3.7	6.6
Iran	0.4	0.8	1.4	2.4	3.7
Turkey	1.4	0.9	1.1	1.7	3.3
Viet-Nam	0.2	0.4	0.6	1.6	3.0
Philippines	0.4	0.7	1.2	1.8	2.7
Thailand	0.5	0.6	0.8	1.0	1.7
Iraq	0.3	0.4	0.6	0.8	1.6
Burma	0.5	0.6	0.6	0.8	1.2
Syria	0.4	0.4	0.5	0.8	1.2
Singapore	0.4	0.4	0.6	0.9	1.2
West Malaysia	0.1	0.2	0.3	0.4	0.8
Ceylon	0.3	0.4	0.5	0.6	0.8
Israel	...	...	0.2	0.6	0.7
Saudi Arabia	0.1	0.1	0.2	0.2	0.6
Lebanon	0.2	0.2	0.2	0.3	0.6
Afghanistan	0.1	0.1	0.2	0.2	0.5
Cambodia	...	...	0.1	0.3	0.4
Jordan	...	...	...	...	0.2
Laos	...	...	...	...	0.2
Kuwait	...	...	...	0.1	0.2
Aden	...	...	...	...	0.1
Nepal	...	...	...	0.1	0.1
Latin America					
Brazil	2.9	3.5	4.8	7.6	13.6
Argentina	2.5	3.4	4.2	6.5	8.9
Mexico	0.8	1.4	2.2	3.8	8.3
Colombia	0.2	0.4	0.8	1.6	3.4
Chile	0.7	0.9	1.2	1.6	2.4
Venezuela	0.1	0.2	0.4	1.0	2.2
Cuba	0.4	0.6	0.9	1.2	1.8
Peru	0.2	0.4	0.5	1.0	1.7
Uruguay	0.4	0.5	0.6	0.8	1.0
Ecuador	0.1	0.2	0.3	0.5	0.8
Bolivia	0.1	0.2	0.2	0.3	0.6
Puerto Rico	...	0.1	0.2	0.4	0.5
Guatemala	0.1	0.2	0.2	0.3	0.4
Dominican Republic	...	...	...	0.2	0.4
Paraguay	...	...	0.1	0.2	0.4

Table 42 *(concluded)*

Country	1920	1930	1940	1950	1960
Latin America (continued)					
Jamaica	...	0.1	0.2	0.3	0.4
Panama	...	...	0.1	0.2	0.3
Costa Rica	...	...	0.1	0.2	0.2
Nicaragua	...	...	...	0.1	0.2
Haiti	...	...	0.1	0.1	0.2
British Guiana	...	...	...	...	0.2
Honduras	...	...	...	...	0.1
Surinam	...	...	...	...	0.1
Africa					
United Arab Republic	1.3	1.9	2.6	4.3	7.0
South Africa	0.7	1.1	1.9	2.9	4.2
Nigeria	0.3	0.4	0.6	1.0	3.2
Morocco	0.2	0.4	0.7	1.3	2.2
Algeria	0.4	0.5	0.6	0.8	1.5
Congo (Democratic Republic of)	...	0.1	0.2	0.3	0.6
Ethiopia	0.2	0.2	0.2	0.2	0.6
Tunisia	0.2	0.2	0.3	0.4	0.5
Ghana	...	0.1	0.1	0.2	0.5
Southern Rhodesia	...	0.1	0.1	0.3	0.5
Senegal	0.1	0.1	0.2	0.2	0.4
Kenya	...	...	...	0.1	0.4
Sudan	0.1	0.1	0.2	0.2	0.3
Libya	...	...	0.1	0.1	0.3
Madagascar	...	0.1	0.1	0.2	0.2
Angola	...	...	0.1	0.1	0.2
Ivory Coast	...	...	...	...	0.2
Cameroon	...	...	...	...	0.2
United Republic of Tanzania	...	...	...	...	0.2
Dahomey	...	...	...	...	0.1
Guinea	...	...	...	...	0.1
Mali	...	...	...	...	0.1
Sierra Leone	...	...	...	...	0.1
Upper Volta	...	...	...	...	0.1
Congo (Brazzaville)	...	...	...	...	0.1

Table 43. Estimated population in big cities of 500,000 or more inhabitants, 1920-1960 (countries with at least one such city in 1960)

(Millions)

Country	1920	1930	1940	1950	1960
Europe					
United Kingdom	16.8	18.4	18.9	19.2	18.7
Germany (Federal Republic of)	10.0	11.3	12.8	13.3	16.6
France	6.2	7.2	7.4	7.7	8.8
Italy	2.1	3.8	4.6	5.2	7.0
Spain	1.4	1.9	2.2	3.4	4.3
Belgium	2.2	2.5	2.6	2.7	2.9
Netherlands	1.2	1.3	1.4	2.0	2.2
West Berlin	2.6	2.9	2.9	2.1	2.2
Portugal	0.6	0.8	1.5	1.8	2.1
Poland	1.5	2.3	2.6	1.4	1.8

Table 43 (continued)

Country	1920	1930	1940	1950	1960
Europe (continued)					
Hungary	1.2	1.4	1.7	1.6	1.8
Greece	...	0.9	1.1	1.3	1.8
Eastern Germany[a]	2.6	2.9	2.9	1.8	1.7
Austria	1.8	1.9	1.8	1.6	1.6
Romania	...	0.6	0.9	1.1	1.3
Denmark	0.7	0.8	1.0	1.2	1.3
Czechoslovakia	0.7	0.8	1.0	0.9	1.0
Sweden	...	0.6	0.7	0.9	1.0
Bulgaria	...	...	...	0.5	0.7
Yugoslavia	...	...	...	...	0.6
Finland	...	...	...	...	0.6
Norway	...	...	...	...	0.6
Ireland	...	...	0.5	0.6	0.6
Switzerland	...	...	...	...	0.5
Northern America					
United States	25.6	34.3	36.9	47.8	67.9
Canada	1.4	1.9	2.1	3.2	4.6
Soviet Union	1.7	5.8	15.4	16.2	26.9
Oceania					
Australia	1.7	2.1	2.4	3.0	5.2
East Asia					
China (mainland)	5.0	7.5	10.0	17.5	45.0
Japan	8.0	11.3	15.4	14.1	24.5
Korea	...	...	0.9	1.5	4.8
Hong Kong	0.6	0.7	1.5	1.9	2.6
China (Taiwan)	...	...	...	...	0.9
South Asia					
India	3.6	4.0	7.8	13.7	20.4
Indonesia	...	0.5	1.5	3.0	4.8
Pakistan	...	...	0.6	1.8	3.8
Philippines	...	0.6	0.9	1.5	2.2
Turkey	1.0	0.7	0.8	1.0	2.1
Viet-Nam	...	...	...	1.2	2.0
Iran	...	...	0.6	1.0	1.8
Thailand	...	0.5	0.6	0.8	1.3
Singapore	...	...	0.6	0.9	1.2
Burma	...	...	...	0.7	0.9
Ceylon	...	...	...	0.6	0.8
Iraq	...	...	...	...	0.7
Syria	...	...	...	...	0.5
Latin America					
Brazil	1.9	2.6	3.6	6.0	11.8
Argentina	2.3	2.8	3.5	5.2	8.0
Mexico	0.7	1.2	1.7	3.0	6.2
Chile	0.5	0.7	1.0	1.2	2.0
Colombia	...	...	...	0.7	1.8
Peru	...	...	0.6	1.0	1.6
Cuba	...	0.6	0.8	1.0	1.4
Venezuela	...	...	...	0.7	1.3
Uruguay	...	0.5	0.6	0.8	1.0
Africa					
United Arab Republic	0.9	1.7	2.3	3.4	4.8
South Africa	...	...	0.6	1.5	2.6
Nigeria	...	...	...	...	1.1
Morocco	...	...	...	0.6	1.0
Algeria	...	...	...	0.5	0.7

[a] Including East Berlin.

Table 44. Estimates of urban population according to national definitions and agglomerated population (localities with 20,000 or more inhabitants), 1950 and 1960 (countries with at least 1 million in localities of 20,000 or more in 1960 and for which estimates according to national definitions could be made for mid-years 1950 and 1960)

| | Urban population (Thousands) | | | | Urban population as percentage of total population | | | |
| | As nationally defined | | Localities with 20,000 or more | | As nationally defined | | Localities with 20,000 or more | |
Country	1950	1960	1950	1960	1950	1960	1950	1960
Europe								
United Kingdom	40,746	41,219	34,824	35,968	80.5	78.5	68.8	68.5
Germany (Federal Republic of)	33,924	40,663ᵃ	21,865	27,485	70.9	76.4	45.7	51.6
Italy	19,560ᵇ	23,520	19,200	23,140	42.0	47.4	41.2	46.6
France	22,704ᶜ	27,959	18,615	21,885	54.4	61.2	44.6	47.9
Spain	14,380ᵈ	17,091	11,031	13,654	51.6	56.4	39.6	45.1
Poland	9,966ᶜ	14,020	6,250	9,200	39.9	47.2	25.0	31.0
Eastern Germanyᵉ	13,019	12,448	7,200	6,950	70.8	72.2	39.2	40.3
Netherlands	5,644ᶠ	9,184	5,645	6,865	55.8	80.0	55.8	59.8
Belgium	5,477	6,041	4,390	4,730	63.4	66.0	50.8	51.7
Romania	4,170ᶜ	5,889	2,925	3,925	25.9	32.0	18.2	21.3
Hungary	3,454ᶜ	3,974	3,200	3,775	37.0	39.8	34.3	37.8
Czechoslovakia	6,343ᶠ	6,486	2,775	3,425	51.2	47.5	22.4	25.1
Yugoslavia	2,795ᶠ	5,116	2,060	3,315	17.1	27.8	12.6	18.0
Sweden	3,304ᶠ	5,416	2,329	3,022	47.1	72.4	33.2	40.4
Greece	2,746ᶜ	3,556	2,290	2,950	36.3	42.7	30.3	35.4
Austria	3,405	3,533	2,620	2,705	49.1	49.9	37.8	38.2
Portugal	2,622	2,983	2,130	2,480	31.2	33.8	25.3	28.1
Denmark	2,870ᶜ	3,390	1,913	2,222	67.2	74.0	44.8	48.5
West Berlin	2,139	2,199	2,139	2,199	100.0	100.0	100.0	100.0
Bulgaria	2,023	2,895	1,400	2,100	27.9	36.8	19.3	26.7
Finland	1,275ᶠ	2,459	1,247	1,714	31.8	55.5	31.1	38.7
Switzerland	1,704ᶠ	2,745	1,370	1,615	36.3	51.2	29.2	30.1
Norway	1,045ᶠ	1,737	970	1,243	32.0	48.5	29.7	34.7
Northern America								
United States	97,606	126,473	77,810	105,700	64.1	70.0	51.1	58.5
Canada	8,517ᶜ	12,357	6,445	9,562	62.0	69.0	46.9	53.4
Soviet Union	71,200ᵍ	106,000ᵍ	50,000	78,000	39.6	49.4	27.8	36.4
Oceania								
Australia	6,008ᶜ	8,407	4,825	6,800	73.1	81.5	58.7	65.9
New Zealand	1,049ᶜ	1,471	1,025	1,400	55.0	62.0	53.7	59.0
East Asia								
China (mainland)	61,600	104,000ʰ	52,500	87,500	11.0	16.0	9.4	13.5
Japan	30,922ⁱ	58,722ⁱ	31,203	42,916	37.3	63.0	37.6	46.0
Republic of Korea	4,033ᶜ	6,808	3,711	6,808	20.0	27.6	18.4	27.6
China (Taiwan)	4,061	6,155	1,835	3,105	53.3	58.0	24.1	29.3
Hong Kong	1,993ʲ	2,706ʲ	1,925	2,614	88.0	88.0	85.0	85.0
South Asia								
India	61,791	77,462ᵏ	41,700	59,400	17.2	17.9	11.6	13.7
Indonesia	9,741ˡ	13,666	6,900	10,200	12.7	14.5	9.0	10.8
Pakistan	7,654ᶜ	12,405	5,910	9,750	10.2	13.4	7.9	9.6
Turkey	4,545ᶠ	7,233	3,000	5,925	21.7	26.0	14.3	21.3
Iran	3,255ᵐ	6,761	3,525	5,450	20.0	33.5	21.6	27.0

ᵃ As defined in 1950 census; urban population was not explicitly defined in recent census.

ᵇ Estimated in conformity with recent census; at 1951 census, urban population was not explicitly defined.

ᶜ Definition at previous census not strictly comparable with that at recent census.

ᵈ *Municipios* of 10,000 or more inhabitants, this being the definition of urban population in the census of 1960 and in censuses up to 1940; in 1950 census, urban population was not explicitly defined.

ᵉ Including East Berlin.

ᶠ Definition at previous census differed considerably from that at recent census·

ᵍ According to annual series in *Narodnoe Khozyaystvo SSSR*.

ʰ Extrapolated from 1949-1956 series of official estimates.

ⁱ Population of *shi*, i.e., areas under municipal administration; these were greatly enlarged in the 1950s.

ʲ Hong Kong Island, Kowloon, New Kowloon and seven towns of 10,000 and more inhabitants in New Territories.

ᵏ Definition of urban population modified at 1961 census. If 1951 definition had been retained, an additional 4.4 million people would have been enumerated as urban in 1961, raising the percentage of urban population by one additional point. See C. Chandrasekaran and K. C. Zachariah in "Concepts used in defining urban population and data available on its characteristics in countries of Southern Asia", *Urban-Rural Differences in Southern Asia*, UNESCO Research Centre on Social and Economic Development in Southern Asia (New Delhi, United India Press, 1964), pp. 55-56.

ˡ Interpolated from census data of 1930 and 1961; it is uncertain whether definitions were comparable at both censuses and doubtful whether the percentage of urban population would have risen at a uniform rate over that long period.

ᵐ According to official estimates not based on a previous census. The first national census was taken in 1956.

Table 44 *(continued)*

Country	Urban population (Thousands)				Urban population as percentage of total population			
	As nationally defined		Localities with 20,000 or more		As nationally defined		Localities with 20,000 or more	
	1950	1960	1950	1960	1950	1960	1950	1960
South Asia (continued)								
Philippines	4,937[f]	8,222	3,075	4,575	24.3	30.0	15.1	16.7
Thailand	2,106[n]	4,812[n]	1,175	2,350	10.8	18.2	6.0	8.9
Burma	2,718	3,617	1,625	2,300	14.7	16.2	8.8	10.3
Iraq	1,843	2,835	1,150	2,225	35.1	40.5	21.9	31.8
West Malaysia	1,619	3,247	975	1,675	31.2	47.0	18.8	24.2
Syria	1,272[o]	1,812[o]	1,000	1,500	37.5	38.7	29.5	32.0
Israel	893[c]	1,632	725	1,300	71.0	77.2	57.6	61.5
Singapore	713	1,024	875	1,250	69.8	62.6[p]	85.6	76.5
Ceylon	1,175	1,484	8'5	1,185	15.3	15.0[p]	11.4	12.0
Latin America								
Brazil	18,943	31,707	10,775	20,275	36.2	45.0	20.6	28.8
Mexico	11.002	17,739	6,100	12,150	42.6	50.7	23.6	34.7
Argentina	11,018	14,606[q]	8,750	11,425	64.1	69.7	50.9	54.5
Colombia	4,356	7,193	2,500	4,850	37.3	46.5	21.4	31.4
Chile	3,559	5,171	2,525	4,025	58.6	67.8	41.6	52.8
Venezuela	2,657	4,939	1,675	3,300	53.1	66.8	33.5	44.6
Cuba	3,107	3,793[r]	1,900	2,700	56.4	55.8	34.5	39.7
Peru	3,279	4,753	1,450	2,650	40.5	46.6	17.9	26.0
Uruguay	1,427[s]	1,940	950	1,400	65.0	77.9	43.3	56.2
Ecuador	924	1,481	575	1,075	28.2	34.0	17.5	24.7
Africa								
United Arab Republic	6,523	9,810	6,250	9,450	31.9	37.8	30.6	36.4
South Africa	5,203	7,389	3,875	5,659	41.8	46.7	31.1	35.8
Nigeria	4,981[t]	8,580[t]	2,575	5,525	12.4	16.5	6.4	10.6
Morocco	2,130[u]	3,406	1,950	2,750	24.0	29.3	22.0	23.7
Algeria	2,048	3,559	1,325	2,700	23.4	32.3	15.1	24.5
Congo (Democratic Republic of)	2,066	3,365	425	1,250	17.6	23.8	3.6	8.8

[n] According to data supplied to the United Nations. Not an official definition of urban population.

[o] According to annual series of registered population; the registered population is in excess of that enumerated at the census.

[p] Apparent relative decline in urban population probably due to its definition within administrative boundaries.

[q] Partly estimated, a complete count of urban population according to 1960 ensus not having become available.

[r] According to Juan Perez de la Riva in "La Population de Cuba et ses problèmes", *Population* (Paris), No. 1, jan-fev. 1957, pp. 99-110; definition differs from that at 1953 census.

[s] Rough estimate, no census having been taken between 1908 and 1963.

[t] Assuming a rise in percentage of urban population since 1931 census similar to the rise in estimated percentage in localities with 20,000 or more inhabitants.

[u] Obtained by adding estimates for Northern Zone and Tangiers to census data for Southern Zone.

Table 45. Percentage of total population in agglomerations with 20,000 or more inhabitants, 1290-1960
(same countries as in table 44)

Country	1920	1930	1940	1950	1960
Europe					
United Kingdom	64	69	69	69	69
Germany (Federal Republic of)	47	48	50	46	52
Italy	32	36	38	41	47
France	37	39	45	45	48
Spain	26	30	36	40	45
Poland	18	21	24	25	31
Eastern Germany[a]	40	42	44	39	40
Netherlands	45	49	52	56	60
Belgium	49	51	51	51	52
Romania	12	13	18	18	21

[a] Including East Berlin.

Table 45 (continued)

Country	192b	1930	1940	1950	1960
Europe (continued)					
Hungary	32	33	36	34	38
Czechoslovakia	17	20	21	22	25
Yugoslavia	7	9	10	13	18
Sweden	23	25	31	33	40
Greece	17	27	25	30	35
Austria	36	36	37	38	38
Portugal	20	21	23	25	28
Denmark	32	34	41	45	49
West Berlin	100	100	100	100	100
Bulgaria	9	12	15	19	27
Finland	17	21	25	31	39
Switzerland	25	26	28	29	30
Norway	23	26	28	30	35
Northern America					
United States	42	47	47	51	59
Canada	34	39	41	47	53
Soviet Union	10	13	24	28	36
Oceania					
Australia	49	49	54	59	66
New Zealand	36	40	44	54	59
East Asia					
China (mainland)	5	6	8	9	13
Japan	23	29	39	38	46
Korea	4	7	13	21	29
China (Taiwan)	7	14	21	24	29
Hong Kong	85	85	85	85	85
South Asia					
India	6	7	9	12	14
Indonesia	3	4	7	9	11
Pakistan	3	4	6	8	10
Turkey	19	12	13	14	21
Iran	8	11	16	22	27
Philippines	9	11	12	15	17
Viet-Nam	2	3	4	9	14
Thailand	5	5	6	6	9
Burma	5	6	7	9	10
Iraq	10	12	18	22	32
West Malaysia	10	11	15	19	24
Syria	20	22	25	29	32
Israel	10	14	31	58	61
Singapore	90	76	80	86	76
Ceylon	10	10	12	11	12
Latin America					
Brazil	13	14	16	21	29
Mexico	11	15	18	24	35
Argentina	37	38	41	51	55
Colombia	7	10	14	21	31
Chile	28	32	37	42	53
Venezuela	11	13	19	33	45
Cuba	25	27	30	34	40
Peru	6	10	13	18	26
Uruguay	30	35	38	43	56
Ecuador	10	13	16	18	25
Africa					
United Arab Republic	18	21	24	31	36
South Africa	17	21	25	31	36
Nigeria	3	4	5	6	11
Morocco	7	11	16	22	24
Algeria	11	12	14	15	24
Congo (Democratic Republic)	1	2	2	4	9

Annex V

POPULATION OF BIG CITIES AND MULTIMILLION CITIES, 1920-1960

A list of big cities (500,000 or more inhabitants) and multimillion cities (2,500,000 or more inhabitants) is provided in this annex. The estimated population of each city is listed for 1920, 1930, 1940, 1950 and 1960 for all dates at which the cities contained more than 500,000 inhabitants. City populations that exceed 2,500,000 are in italics. The estimates in this annex refer to agglomerations rather than cities as nationally defined. See chapter II and annex III for techniques of measurement.

In 1920, only eighty-three cities of the world qualified as big cities. By 1960, 154 additional cities had reached a population size of 500,000 or more inhabitants. Three cities (Dresden, Sheffield and Wroclaw) which qualified as big cities in 1920 did not qualify in 1960 because of declines in population size; hence there were 234 big cities in 1960. The number of multimillion cities has risen from seven in 1920 to twenty-six in 1960.

In introducing these figures, it is necessary to restate that research has been insufficient to bring them to strictly comparable levels. Many of the figures remain very debatable and should, upon closer examination, perhaps be replaced by others.

Table 46. Population of big cities and multimillion cities, 1920-1960

Major area	1920	1930	1940	1950	1960
EUROPE					
Western Europe					
France:					
Paris	*4,965*	*5,885*	*6,050*	*6,300*	*7,140*
Lyons	665	690	710	730	855
Marseilles	600	625	650	680	780
Germany (Federal Republic of):					
Ruhrgebiet	*3,730*	*3,885*	*3,960*	*4,070*	*4,960*
Hamburg	1,545	1,710	1,810	1,790	2,030
Stuttgart	615	695	870	985	1,300
Cologne	855	975	1,065	965	1,285
Munich	670	760	945	960	1,240
Frankfurt-Offenbach	810	860	905	945	1,215
Düsseldorf	560	620	705	680	940
Wuppertal-Solingen-Remscheid	725	745	750	745	870
Mannheim-Ludwigshafen	500	540	620	580	725
Hannover	...	...	555	565	720
Nürnberg-Fürth	...	520	570	545	650
Bremen	...	...	...	500	615
Austria:					
Vienna	1,845	1,870	1,760	1,615	1,625
Belgium:					
Brussels	1,070	1,200	1,260	1,325	1,425
Antwerp	630	740	765	800	865
Liège	520	560	565	570	600
Netherlands:					
Amsterdam	640	750	785	820	865
Rotterdam	515	585	620	665	730
The Hague	...	...	...	550	605
Switzerland:					
Zurich	...	...	...	...	535

Table **46** *(continued)*

Major area	1920	1930	1940	1950	1960
Northern Europe					
United Kingdom:					
London[a]	*7,236*	*8,127*	*8,275*	*8,366*	*8,190*
Manchester	2,306	2,416	2,428	2,429	2,427
Birmingham	1,694	1,911	2,070	2,226	2,333
Glasgow	1,630	1,685	1,721	1,765	1,782
Leeds	1,445	1,636	1,672	1,692	1,702
Liverpool	1,201	1,333	1,364	1,386	1,386
Newcastle-upon-Tyne . .	798	824	831	834	851
Sheffield	511	518	516	515	...
Denmark:					
Copenhagen	704	793	1,001	1,163	1,260
Sweden:					
Stockholm	...	601	719	920	956
Ireland:					
Dublin	...	...	527	567[a]	586[a]
Finland:					
Helsinki	...	...	...	...	584
Norway:					
Oslo	...	...	...	...	577
Southern Europe					
Spain:					
Madrid	742	942	1,081	1,586	2,223
Barcelona	698	989	1,077	1,269	1,543
Valencia	...	...	...	506	505
Italy:					
Rome	629	890	1,270	1,598	2,020
Milan	666	918	1,156	1,258	1,491
Naples	762	823	902	996	1,160
Turin	...	576	651	710	963
Genoa	...	575	647	682	764
Palermo	...	...	...	...	596
Greece:					
Athens	...	895	1,115	1,340	1,815
Portugal:					
Lisbon	640	785	940	1,120	1,320
Porto	...	...	575	650	740
Yugoslavia:					
Belgrade	...	...	...	...	575
Eastern Europe					
Berlin (whole city) . . .	*4,025*	*4,500*	*4,500*	*3,339*	*3,274*
West Berlin					
West Berlin	*(2,600)*	*(2,900)*	*(2,900)*	*(2,139)*	*(2,199)*
Hungary:					
Budapest	1,225	1,430	1,695	1,615	1,835
Romania:					
Bucharest	...	620	910	1,100	1,325
Poland:					
Warsaw	920	1,140	1,300	790	1,120
Lodz	...	585	675	615	700
Wroclaw	550	600	625	...	...
Eastern Germany:					
East Berlin	(1,425)	(1,600)	(1,600)	(1,200)	(1,075)
Leipzig	625	700	690	615	585

[a] Not including "overspill" populations of perhaps 2 or 3 million in 1960 as discussed chapter II, section G.

Table 46 *(continued)*

Major area	1920	1930	1940	1950	1960
Eastern Europe (continued)					
Eastern Germany *(continued)*					
Dresden	550	630	630	...	...
Czechoslovakia:					
Prague	665	840	975	935	1,000
Bulgaria:					
Sofia	...	...	...	525	700
NORTHERN AMERICA					
Northern America					
United States:					
New York–northeastern					
New Jersey	8,047	10,250	10,930	12,340	14,163
Los Angeles	839	1,996	2,480	4,046	6,568
Chicago	3,315	4,427	4,531	4,945	5,988
Philadelphia	2,302	2,667	2,696	2,938	3,655
Detroit	1,199	2,014	2,135	2,769	3,560
Boston[b]	2,210	2,478	2,503	2,501	2,700
San Francisco–Oakland .	905	1,211	1,293	2,031	2,442
Washington	...	533	792	1,298	1,823
Pittsburgh	1,261	1,498	1,524	1,540	1,812
Cleveland	924	1,186	1,212	1,393	1,796
St. Louis	978	1,129	1,169	1,408	1,675
Baltimore	747	819	907	1,168	1,426
Minneapolis–St. Paul . .	643	792	855	995	1,388
Milwaukee	503	679	709	836	1,159
Houston	...	...	...	710	1,154
Buffalo	652	777	792	900	1,061
Cincinnati	562	665	680	817	999
Dallas	...	...	...	546	946
Kansas City	...	551	555	703	927
Seattle	...	...	...	627	871
Miami	...	...	...	...	866
New Orleans	...	...	513	664	850
San Diego	...	...	...	...	845
Denver	...	...	...	505	814
Atlanta	...	...	...	513	776
Providence-Pawtucket . .	517	597	612	585	662
Portland	...	...	...	516	656
San Antonio	...	...	...	...	648
Indianapolis	...	...	...	505	643
Columbus	...	...	...	...	622
San Jose	...	...	...	...	622
Louisville	...	...	...	...	611
Phoenix	...	...	...	...	565
Memphis	...	...	...	...	549
Birmingham	...	...	...	...	523
Norfolk-Portsmouth . .	...	...	...	...	512
Fort Worth	...	...	...	...	509
Dayton	...	...	...	...	507
Canada:					
Montreal	741	1,020	1,163	1,442	2,042
Toronto	631	840	933	1,183	1,757
Vancouver	...	...	...	544	769
SOVIET UNION					
Soviet Union					
Soviet Union:					
Moscow	950	2,630	4,980	5,350	6,150
Leningrad	720	2,100	3,650	2,950	3,400
Kiev	...	530	920	850	1,150

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[b] Includes urbanized areas of Lawrence-Haverhill and Lowell.

Table 46 *(continued)*

Major area	1920	1930	1940	1950	1960
Soviet Union *(continued)*					
Baku	...	550	820	780	1,000
Gorkiy	...	...	720	780	990
Kharkov	...	...	910	770	960
Tashkent	...	...	580	700	960
Novosibirsk	...	...	...	630	950
Kuybyshev	...	...	...	590	850
Sverdlovsk	...	...	...	600	820
Donetsk	...	...	550	570	740
Chelyabinsk	...	...	...	...	720
Tbilisi	...	...	560	580	720
Dnepropetrovsk	...	...	580	530	700
Odessa	...	...	630	570	690
Kazan	...	...	...	...	680
Perm	...	...	...	...	670
Rostov-on-Don	...	...	530	...	630
Volgograd	...	...	...	...	620
Omsk	...	...	...	...	620
Saratov	...	...	...	...	610
Riga	...	...	...	...	600
Ufa	...	...	...	...	580
Minsk	...	...	...	...	550
Yerevan	...	...	...	...	550
OCEANIA					
Australia and New Zealand					
Australia:					
Sydney	910	1,150	1,350	1,650	2,150
Melbourne	775	950	1,100	1,350	1,850
Brisbane	...	...	...	...	600
Adelaide	...	...	...	...	575
EAST ASIA					
Mainland East Asia					
China (mainland):					
Shanghai	1,700	2,200	*3,750*	*5,000*	*7,500*
Peking	900	1,200	1,200	1,500	*3,500*
Tientsin	800	900	1,000	1,700	*2,750*
Wuhan	800	1,000	900	900	*2,000*
Shenyang	...	500	650	1,200	2,000
Chungking	...	...	...	1,000	2,000
Canton	800	1,000	1,000	1,100	1,750
Lütah	...	...	500	600	1,500
Harbin	...	...	...	700	1,500
Sian	...	...	...	...	1,500
Nanking	...	700	500	1,000	1,400
Tsingtao	...	...	500	700	1,000
Chengtu	...	...	...	600	1,000
Taiyuan	...	...	...	...	1,000
Fushun	...	...	...	...	1,000
Changchun	...	...	...	900	900
Kunming	...	...	...	...	800
Tsinan	...	...	...	900	800
Anshan	...	...	...	...	800
Tzepo	...	...	...	...	750
Tsitsihar	...	...	...	...	750
Lanchow	...	...	...	...	750
Chengchow	...	...	...	...	700
Tangshan	...	...	...	...	700
Hangchow	...	...	...	500	700
Shihkiachwang	...	...	...	...	600
Paotow	...	...	...	...	600
Changchow	...	...	...	...	600
Soochow	...	...	...	...	600

Table 46 *(continued)*

Major area	1920	1930	1940	1950	1960
Mainland East Asia (continued)					
China (mainland) *(continued)*					
Kweiyang	...	...	...	...	550
Foochow	...	...	...	...	500
Kirin	...	...	...	...	500
Kalgan	...	...	...	...	500
Wusih	...	...	...	...	500
Loyang	...	...	...	...	500
Nanchang	...	...	...	...	500
Hong Kong:					
Hong Kong	550	700	1,500	1,025	*2,614*
Japan					
Japan:					
Tokyo–Yokohama	*4,168*	*6,064*	*8,558*	*8,182*	*13,534*
Osaka	*1,889*	*2,609*	*3,481*	*3,055*	*5,158*
Nagoya	608	907	1,328	1,031	1,592
Kyoto	702	952	1,090	1,102	1,285
Kobe	644	788	967	765	1,114
Fukuoka	...	...	...	...	647
Kawasaki	...	...	...	...	633
Sapporo	...	...	...	...	524
Other East Asia					
Republic of Korea:					
Seoul	...	...	935	1,525	2,400
Pusan	...	...	...	...	1,100
Taegu	...	...	...	...	650
North Korea:					
Pyongyang	...	...	...	...	650
China (Taiwan):					
Taipei	...	...	...	...	900
South Asia					
Middle South Asia					
India:					
Calcutta	1,820	2,055	*3,400*	*4,490*	*5,810*
Bombay	1,275	1,300	*1,660*	*2,730*	*4,040*
Delhi	...	...	640	1,310	2,270
Madras	525	640	765	1,355	1,700
Hyderabad	...	...	715	1,055	1,240
Bangalore	...	...	...	740	1,170
Ahmedabad	...	...	570	775	1,170
Kanpur	...	...	...	685	950
Poona	...	...	...	565	725
Nagpur	...	...	...	...	670
Lucknow	...	...	...	...	640
Iran:					
Tehran	...	...	625	1,050	1,840
Pakistan:					
Karachi	...	...	...	990	1,830
Lahore	...	...	...	650	1,250
Dacca	...	...	...	...	690
Ceylon:					
Colombo	...	...	...	610	810
South-East Asia					
Indonesia:					
Djakarta	...	525	1,000	1,750	*2,850*
Surabaja	...	...	500	700	975
Bandung	...	...	...	575	925
Philippines:					
Manila	...	600	900	1,475	2,150

Table 46 (continued)

Major area	1920	1930	1940	1950	1960
South-East Asia (continued)					
Republic of Viet-Nam:					
Saigon-Cholon	...	...	...	1,200	1,400
North Viet-Nam:					
Hanoi	...	...	...	...	650
Thailand:					
Bangkok	...	500	625	750	1,325
Singapore:					
Singapore	...	...	600	800	1,025
Burma:					
Rangoon	...	...	...	675	900
South-West Asia					
Turkey:					
Istanbul	1,000	700	800	975	1,450
Ankara	...	...	...	...	650
Iraq:					
Baghdad	...	...	...	...	725
Syria:					
Damascus	...	...	...	...	525
LATIN AMERICA					
Tropical South America					
Brazil:					
Rio de Janeiro	1,325	1,675	2,150	3,050	4,700
São Paulo	600	900	1,425	2,450	4,375
Recife	...	...	...	525	800
Belo Horizonte	...	...	...	...	650
Salvador	...	...	...	...	625
Pôrto Alegre	...	...	...	...	625
Peru:					
Lima-Callao	...	...	600	975	1,575
Colombia:					
Bogotá	...	...	...	675	1,300
Medellín	...	...	...	...	550
Venezuela:					
Caracas	...	...	...	700	1,275
Temperate South America					
Argentina:					
Buenos Aires	2,275	2,750	3,500	5,150	6,775
Rosario	...	...	...	...	675
Córdoba	...	...	...	...	600
Chile:					
Santiago	500	700	950	1,250	2,000
Uruguay:					
Montevideo	...	525	625	800	1,050
Middle American Mainland					
Mexico:					
Mexico City	675	1,175	1,675	2,950	4,825
Guadalajara	...	...	...	...	750
Monterrey	...	...	...	...	600
Caribbean					
Cuba:					
La Habana	...	625	775	1,000	1,400

Table 46 *(concluded)*

Major area	1920	1930	1940	1950	1960
AFRICA					
Northern Africa					
United Arab Republic:					
Cairo	865	1,139	1,527	*2,342*	*3,320*
Alexandria	...	608	754	1,037	1,502
Morocco:					
Casablanca	...	...	...	613	965
Algeria:					
Algiers	...	...	...	500	722
Tunisia:					
Tunis	...	...	...	...	542
Tropical Africa					
Nigeria:					
Ibadan	...	...	...	...	575
Lagos	...	...	...	...	500
South Africa					
Republic of South Africa:					
Johannesburg	...	...	650	895	1,140
Cape Town	...	...	...	605	800
Durban	...	...	...	...	675

TABLES OF ESTIMATES AND PROJECTIONS FOR TWENTY-ONE WORLD REGIONS

The twenty-one world regions listed in the tables of this annex are grouped in three major categories:

1. Older urban concentration (Europe);

2. More recent urban concentration (more developed regions other than Europe);

3. Most recent urban concentration (less developed regions).

The average levels of urbanization for the three major groups of regions are shown below:

	Percent of total population in agglomerations of 20,000 or more inhabitants			
	1920	1940	1960	1980
Older urban concentration (Europe)	35	40	44	50
More recent urban concentration (more developed regions other than Europe)	24	35	47	64
Most recent urban concentration (less developed regions)	6	9	15	22

Urbanization on a modern scale had already appeared in Europe early in the nineteenth century and, in terms of "agglomerated" population, Europe was more than one-third urbanized in 1920. Other more developed regions reached this level by 1940, but in these regions urban concentration proceeded so fast that the level of Europe was surpassed by 1960. In the less developed regions, cities are now growing with even greater speed but most large-scale urban development is still relatively new. In 1920, only 6 per cent of the population in these regions was agglomerated. By 1980, the less developed regions may attain a level of 22 per cent, and they may approach the 1920 urbanization level of Europe towards the end of this century.

The figures below indicate the relative concentration of agglomerated population in larger cities.

	Percentage of agglomerated population in big cities of 500,000 or more inhabitants			
	1920	1940	1960	1980
Older urban concentration (Europe)	46	46	43	45
More recent urban concentration (more developed regions other than Europe)	49	50	54	52
Most recent urban concentration (less developed regions)	20	28	42	46

The proportion of agglomerated population in big cities has fluctuated between 43 and 46 per cent in Europe since 1920. In more developed regions outside Europe, it has come to surpass 50 per cent. In the less developed regions, only 20 per cent of the agglomerated population resided in big cities in 1920. By 1960, the proportion (42 per cent) was nearly equal to that of Europe.

Estimates of urban population and agglomerated population presented in this annex were developed by methods which have been explained in the text and in annex III. The figures for total population are taken from the "medium" variant estimates shown in a recent study of world population trends, with one exception.[a]

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[a] *World Population Prospects as Assessed in 1963* (United Nations publication, Sales No.: 66.XIII.2). In that publication, an adjusted estimate was made for Pakistan in 1960. In order to maintain consistency with the time series for preceding years it was preferred to retain the estimate as presented in the "Provisional report on world population prospects, as assessed in 1963" (ST/SOA/SER.R/7, 1964). The discrepancy in population estimates for the regions of western Europe and eastern Europe between this report and *World Population Prospects as Assessed in 1963* is due to the re-allocation of West Berlin to eastern Europe rather than western Europe so that the size of the combined city of Berlin could also be taken into account.

Table 47. Total population in world regions grouped by recency of urban concentration, 1920-1960

(Millions)

Region	1920	1930	1940	1950	1960
1. Older urban concentration					
(Europe)					
Total of group	324.9	353.9	378.9	391.8	424.7
Northern Europe	62.0	65.0	68.3	72.5	75.8
Western Europe	98.8	105.7	110.3	120.3	132.3
Southern Europe	82.8	92.6	102.5	108.4	117.5
Eastern Europe	81.3	90.6	97.8	90.6	99.1
2. More recent urban concentration					
(more developed regions other than Europe)					
Total of group	347.8	404.0	441.7	466.0	551.8
Northern America	115.7	134.2	144.3	166.1	198.7
Soviet Union	155.2	179.0	195.0	180.0	214.4
Japan	55.4	63.9	71.4	82.9	93.2
Temperate South America	14.8	18.9	22.3	26.9	32.8
Australia and New Zealand	6.6	8.0	8.7	10.1	12.7
3. Most recent urban concentration					
(less developed regions)					
Total of group	1,187.3	1,310.7	1,474.5	1,657.7	2,014.5
Mainland East Asia	476.4	501.7	532.9	563.2	654.2
Other East Asia	21.6	25.6	30.1	38.2	46.8
South-East Asia	108.0	126.7	150.4	172.5	218.9
Middle South Asia	333.1	370.9	422.2	479.0	579.9
South-West Asia	28.7	31.4	37.5	45.2	59.1
Northern Africa	35.1	39.1	44.8	52.6	66.0
Tropical Africa	100.0	115.0	135.0	155.0	189.4
Southern Africa	7.8	9.7	11.7	13.9	17.6
Middle American Mainland	19.4	22.5	26.9	34.7	46.8
Caribbean	9.7	11.6	13.9	16.7	20.3
Tropical South America	45.6	54.5	66.8	84.1	112.5
Other Oceania	1.9	2.0	2.3	2.6	3.0

Table 48. Rural and small-town population in world regions grouped by recency of urban concentration, 1920-1960

(Millions)

Region	1920	1930	1940	1950	1960
1. Older urban concentration					
(Europe)					
Total of group	*212.0*	*222.1*	*229.1*	*232.3*	*236.8*
Northern Europe	30.0	28.7	29.0	30.4	30.8
Western Europe	58.1	60.2	59.0	65.7	66.9
Southern Europe	62.4	66.6	71.3	71.5	71.6
Eastern Europe	61.5	66.6	69.8	64.7	67.5
2. More recent urban concentration					
(more developed regions other than Europe)					
Total of group	*263.0*	*288.7*	*287.6*	*282.3*	*290.1*
Northern America	67.8	71.8	77.7	81.8	83.4
Soviet Union	139.3	155.0	148.0	130.0	136.4
Japan	42.4	45.4	43.9	51.7	50.3
Temperate South America . .	10.0	12.3	13.8	14.5	15.5
Australia and New Zealand . .	3.5	4.2	4.2	4.3	4.5
3. Most recent urban concentration					
(less developed regions)					
Total of group	*1,118.6*	*1,219.6*	*1,346.9*	*1,467.9*	*1,703.8*
Mainland East Asia	450.7	468.3	491.0	508.5	563.8
Other East Asia	20.5	23.6	25.8	30.0	33.0
South-East Asia	103.4	119.5	139.4	155.2	191.5
Middle South Asia	314.9	347.3	387.6	426.4	503.3
South-West Asia	24.6	27.7	32.5	38.0	45.6
Northern Africa	31.0	33.7	37.3	41.6	49.1
Tropical Africa	98.4	112.5	131.3	148.4	175.5
Southern Africa	6.6	7.9	9.1	10.0	11.9
Middle American Mainland .	17.4	19.5	22.6	27.4	32.5
Caribbean	8.7	10.0	11.7	13.4	15.5
Tropical South America . . .	40.5	47.6	56.3	66.4	79.2
Other Oceania	1.9	2.0	2.3	2.6	2.9

Table 49. Agglomerated population (20,000 and over) in world regions grouped by recency of urban concentration, 1920-1960

(Millions)

Region	1920	1930	1940	1950	1960
1. Older urban concentration (Europe)					
Total of group	*112.9*	*131.8*	*149.8*	*159.5*	*187.9*
Northern Europe	32.0	36.3	39.3	42.1	45.0
Western Europe	40.7	45.5	51.3	54.6	65.4
Southern Europe	20.4	26.0	31.2	36.9	45.9
Eastern Europe	19.8	24.0	28.0	25.9	31.6
2. More recent urban concentration (more developed regions other than Europe)					
Total of group	*84.8*	*115.3*	*154.1*	*183.7*	*261.7*
Northern America	47.9	62.4	66.6	84.3	115.3
Soviet Union	16.0	24.0	47.0	50.0	78.0
Japan	13.0	18.5	27.5	31.2	42.9
Temperate South America . .	4.8	6.6	8.5	12.4	17.3
Australia and New Zealand .	3.1	3.8	4.5	5.8	8.2
3. Most recent urban concentration (less developed regions)					
Total of group	*68.7*	*91.1*	*127.6*	*189.8*	*310.7*
Mainland East Asia	25.7	33.4	41.9	54.7	90.4
Other East Asia	1.1	2.0	4.3	8.2	13.8
South-East Asia	4.6	7.2	11.0	17.3	27.4
Middle South Asia	18.2	23.6	34.6	52.6	76.6
South-West Asia	4.1	3.7	5.0	7.2	13.5
Northern Africa	4.1	5.4	7.5	11.0	16.9
Tropical Africa	1.6	2.5	3.7	6.6	13.9
Southern Africa	1.2	1.8	2.6	3.9	5.7
Middle American Mainland .	2.0	3.0	4.3	7.3	14.3
Caribbean	1.0	1.6	2.2	3.3	4.8
Tropical South America . . .	5.1	6.9	10.5	17.7	33.3
Other Oceania	...	...	...	...	0.1

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Table 50. City population (100,000 and over) in world regions grouped by recency of urban concentration, 1920-1960

(Millions)

Region	1920	1930	1940	1950	1960
1. Older urban concentration (Europe)					
Total of group	*74.0*	*87.9*	*99.9*	*106.3*	*125.2*
Northern Europe	24.5	26.9	28.9	30.8	31.7
Western Europe	28.1	32.7	36.6	39.2	47.4
Southern Europe	9.4	13.1	16.4	20.5	26.3
Eastern Europe	12.0	15.2	18.0	15.8	19.8
2. More recent urban concentration (more developed regions other than Europe)					
Total of group	*63.6*	*89.4*	*117.8*	*139.5*	*203.7*
Northern America	39.4	52.9	55.9	72.4	99.9
Soviet Union	8.0	14.0	30.0	30.0	51.0
Japan	10.0	14.4	21.7	23.1	33.2
Temperate South America ..	3.6	4.8	6.2	9.1	12.8
Australia and New Zealand .	2.6	3.3	4.0	4.9	6.8
3. Most recent urban concentration (less developed regions)					
Total of group	*32.2*	*46.0*	*71.1*	*116.9*	*207.2*
Mainland East Asia	10.6	15.9	21.9	32.1	62.9
Other East Asia	0.6	0.9	2.8	5.9	10.6
South-East Asia	2.8	4.6	7.5	12.4	20.1
Middle South Asia	8.1	10.6	17.7	30.2	45.8
South-West Asia	2.1	1.7	2.5	4.7	8.6
Northern Africa	2.2	3.1	4.5	7.1	11.8
Tropical Africa	0.2	0.8	1.2	2.7	7.6
Southern Africa	0.7	1.1	1.9	2.9	4.2
Middle American Mainland .	0.9	1.6	2.7	4.7	9.8
Caribbean	0.4	0.9	1.3	2.2	3.3
Tropical South America ...	3.6	4.8	7.1	12.0	22.5
Other Oceania	...	...	...	...	...

Table 51. Big-city population (500,000 and over) in world regions grouped by recency of urban concentration, 1920-1960

(Millions)

Region	1920	1930	1940	1950	1960
1. Older urban concentration (Europe)					
Total of group	51.7	62.4	68.4	70.5	81.4
Northern Europe	17.5	19.8	21.1	21.9	22.6
Western Europe	21.5	24.2	25.9	27.4	32.6
Southern Europe	4.1	7.4	9.4	11.7	15.7
Eastern Europe	8.6	11.0	12.0	9.5	10.5
2. More recent urban concentration (more developed regions other than Europe)					
Total of group	41.2	59.3	77.3	91.5	140.2
Northern America	27.0	36.1	39.0	51.0	72.5
Soviet Union	1.7	5.8	15.4	16.2	26.9
Japan	8.0	11.3	15.4	14.1	24.5
Temperate South America	2.8	4.0	5.1	7.2	11.1
Australia and New Zealand.	1.7	2.1	2.4	3.0	5.2
3. Most recent urban concentration (less developed regions)					
Total of group	13.7	20.6	35.4	65.4	130.6
Mainland East Asia	5.6	8.2	11.5	19.4	47.6
Other East Asia	...	...	0.9	1.5	5.7
South-East Asia	...	1.6	3.6	7.9	12.2
Middle South Asia	3.6	4.0	9.0	17.2	26.8
South-West Asia	1.0	0.7	0.8	1.0	3.4
Northern Africa	0.9	1.7	2.3	4.5	7.1
Tropical Africa	...	...	...	...	1.1
Southern Africa	...	...	0.6	1.5	2.6
Middle American Mainland	0.7	1.2	1.7	3.0	6.2
Caribbean	...	0.6	0.8	1.0	1.4
Tropical South America	1.9	2.6	4.2	8.4	16.5
Other Oceania	...	...	...	...	...

Table 52. Multimillion city population (2,500,000 and over) in world regions grouped by recency of urban concentration, 1920-1960

(Millions)

Region	1920	1930	1940	1950	1960
1. Older urban concentration (Europe)					
Total of group	*19.9*	*22.4*	*22.8*	*22.1*	*23.6*
Northern Europe	7.2	8.1	8.3	8.4	8.2
Western Europe	8.7	9.8	10.0	10.4	12.1
Southern Europe	...	...	...	...	...
Eastern Europe	4.0	4.5	4.5	3.3	3.3
2. More recent urban concentration (more developed regions other than Europe)					
Total of group	*15.6*	*31.4*	*44.8*	*54.2*	*71.7*
Northern America	11.4	17.3	20.7	29.5	36.6
Soviet Union	...	2.6	8.6	8.3	9.6
Japan	4.2	8.7	12.0	11.2	18.7
Temperate South America . .	...	2.8	3.5	5.2	6.8
Australia and New Zealand .	...	...	...	...	...
3. Most recent urban concentration (less developed regions)					
Total of group	...	...	*7.2*	*18.2*	*46.2*
Mainland East Asia	...	...	3.8	5.0	16.4
Other East Asia	...	...	...	...	...
South-East Asia	...	...	...	...	2.8
Middle South Asia	...	...	3.4	7.2	9.8
South-West Asia	...	...	...	...	...
Northern Africa	...	...	...	...	3.3
Tropical Africa	...	...	...	...	...
Southern Africa	...	...	...	...	...
Middle American Mainland .	...	...	...	3.0	4.8
Caribbean	...	...	...	...	...
Tropical South America . . .	...	...	...	3.0	9.1
Other Oceania	...	...	...	...	...

Table 53. Projections of total population in world regions grouped by recency of urban concentration, 1960-2000

(Millions)

Region	1960	1970	1980	1990	2000
1. Older urban concentration *(Europe)*					
Total of group	*424.7*	*453.9*	*479.6*	*504.1*	*527.2*
Northern Europe	75.8	79.1	81.4	83.3	85.5
Western Europe	132.3	141.4	149.4	157.2	165.0
Southern Europe	117.5	125.7	132.6	139.2	145.4
Eastern Europe	99.1	107.7	116.2	124.4	131.3
2. More recent urban concentration *(more developed regions other than Europe)*					
Total of group	*551.8*	*628.3*	*714.4*	*814.6*	*914.4*
Northern America	198.7	226.8	261.6	305.9	354.0
Soviet Union	214.4	245.7	277.8	316.1	353.1
Japan	93.2	101.5	111.1	118.3	122.4
Temperate South America . .	32.8	39.3	46.2	53.2	60.5
Australia and New Zealand .	12.7	15.0	17.7	21.1	24.4
3. Most recent urban concentration *(less developed regions)*					
Total of group	*2,014.5*	*2,500.2*	*3,124.1*	*3,854.8*	*4,670.7*
Mainland East Asia	654.2	748.0	850.0	950.0	1,045.0
Other East Asia	46.8	61.1	80.0	99.6	119.9
South-East Asia	218.9	283.0	364.3	472.0	603.3
Middle South Asia	579.9	737.5	941.7	1,162.3	1,381.2
South-West Asia	59.1	77.0	102.2	133.4	168.6
Northern Africa	66.0	86.7	116.4	152.6	192.1
Tropical Africa	189.4	236.6	302.9	395.0	524.8
Southern Africa	17.6	22.7	29.6	39.2	50.8
Middle American Mainland .	46.8	64.6	90.4	124.7	165.9
Caribbean	20.3	25.5	32.3	40.4	49.7
Tropical South America . . .	112.5	153.8	209.5	279.6	362.0
Other Oceania	3.0	3.7	4.8	6.0	7.4

Table 54. Projections of agglomerated population in world regions grouped by recency of urban concentration, 1960-2000

(Millions)

Region	1960	1970	1980	1990	2000
1. Older urban concentration (Europe)					
Total of group	*187.9*	*213.5*	*237.3*	*262.5*	*289.3*
Northern Europe	45.0	48.7	51.4	53.8	56.9
Western Europe	65.4	73.6	81.5	89.6	98.1
Southern Europe	45.9	53.5	61.1	69.7	79.1
Eastern Europe	31.6	37.7	43.3	49.4	55.2
2. More recent urban concentration (more developed regions other than Europe)					
Total of group	*261.7*	*332.3*	*423.5*	*520.4*	*610.4*
Northern America	115.3	142.3	177.0	213.8	253.3
Soviet Union	78.0	104.9	140.8	184.3	221.6
Japan	42.9	51.4	62.6	70.9	74.6
Temperate South America	17.3	23.2	30.3	35.9	42.8
Australia and New Zealand	8.2	10.5	12.8	15.5	18.1
3. Most recent urban concentration (less developed regions)					
Total of group	*310.7*	*464.3*	*693.4*	*1,013.0*	*1,437.1*
Mainland East Asia	90.4	124.2	167.0	218.6	281.1
Other East Asia	13.8	22.6	37.5	54.7	69.5
South-East Asia	27.4	42.9	66.8	106.3	162.4
Middle South Asia	76.6	113.5	168.9	244.8	343.9
South-West Asia	13.5	20.0	30.0	43.9	62.0
Northern Africa	16.9	25.8	39.5	58.8	83.9
Tropical Africa	13.9	22.6	37.2	62.3	105.6
Southern Africa	5.7	8.6	13.1	20.3	28.7
Middle American Mainland	14.3	23.4	38.0	59.6	90.0
Caribbean	4.8	7.2	10.7	15.8	22.8
Tropical South America	33.3	53.3	84.4	127.5	186.4
Other Oceania	0.1	0.2	0.3	0.4	0.8

Table 55. Projections of rural and small-town population in world regions grouped by recency of urban concentration, 1960-2000

(Millions)

Region	1960	1970	1980	1990	2000
1. Older urban concentration					
(Europe)					
Total of group	*236.8*	*240.8*	*242.3*	*241.6*	*237.9*
Northern Europe	30.8	30.4	30.0	29.5	28.6
Western Europe	66.9	67.8	67.9	67.6	66.9
Southern Europe	71.6	72.2	71.5	69.5	66.3
Eastern Europe	67.5	70.0	72.9	75.0	76.1
2. More recent urban concentration					
(more developed regions other than Europe)					
Total of group	*290.1*	*296.0*	*290.9*	*294.2*	*304.0*
Northern America	83.4	84.5	84.6	92.1	100.7
Soviet Union	136.4	140.8	137.0	131.8	131.5
Japan	50.3	50.1	48.5	47.4	47.8
Temperate South America . .	15.5	16.1	15.9	17.3	17.7
Australia and New Zealand .	4.5	4.5	4.9	5.6	6.3
3. Most recent urban concentration					
(less developed regions)					
Total of group	*1,703.8*	*2,035.9*	*2,430.7*	*2,841.8*	*3,233.6*
Mainland East Asia	563.8	623.8	683.0	731.4	763.9
Other East Asia	33.0	38.5	42.5	44.9	50.4
South-East Asia	191.5	240.1	297.5	365.7	440.9
Middle South Asia	503.3	624.0	772.8	917.5	1,037.3
South-West Asia	45.6	57.0	72.2	89.5	106.6
Northern Africa	49.1	60.9	76.9	93.8	108.2
Tropical Africa	175.5	214.0	265.7	332.7	419.0
Southern Africa	11.9	14.1	16.5	18.9	22.1
Middle American Mainland .	32.5	41.2	52.4	65.1	75.9
Caribbean	15.5	18.3	21.6	24.6	26.9
Tropical South America . . .	79.2	100.5	125.1	152.1	175.6
Other Oceania	2.9	3.5	4.5	5.6	6.6

Table 56. Percentage of total population in localities with 20,000 and more inhabitants in world regions grouped by recency of urban concentration, 1920-2000

Region	1920	1930	1940	1950	1960	1970	1980	1990	2000
1. Older urban concentration (Europe)									
Total of group	*35*	*37*	*40*	*41*	*44*	*47*	*49*	*52*	*55*
Northern Europe	52	56	58	58	59	62	63	65	67
Western Europe	41	43	47	45	49	52	55	57	59
Southern Europe	25	28	30	34	39	43	46	50	54
Eastern Europe	24	26	29	29	32	35	37	40	42
2. More recent urban concentration (more developed regions other than Europe)									
Total of group	*24*	*29*	*35*	*39*	*47*	*53*	*59*	*64*	*67*
Northern America	41	46	46	51	58	63	68	70	72
Soviet Union	10	13	24	28	36	43	51	58	63
Japan	23	29	39	38	46	51	56	60	61
Temperate South America . . .	32	35	38	46	53	59	66	69	71
Australia and New Zealand . .	47	48	52	57	65	70	72	73	74
3. Most recent urban concentration (less developed regions)									
Total of group	*6*	*7*	*9*	*11*	*15*	*19*	*22*	*26*	*31*
Mainland East Asia	5	7	8	10	14	17	20	23	27
Other East Asia.	5	8	14	21	29	37	47	55	58
South-East Asia.	4	6	7	10	13	15	18	23	27
Middle South Asia	5	6	8	11	13	15	18	21	25
South-West Asia	14	12	13	16	23	26	29	33	37
Northern Africa	12	14	17	21	26	30	34	39	44
Tropical Africa	2	2	3	4	7	10	12	16	20
Southern Africa.	15	19	22	28	32	38	44	52	56
Middle American Mainland . .	10	13	16	21	31	36	42	48	54
Caribbean	10	14	16	20	24	28	33	39	46
Tropical South America	11	13	16	21	30	35	40	46	51
Other Oceania	0	0	0	0	3	5	6	8	11