

TOWARDS A DEFINITION OF URBAN DEVELOPMENT POLICY

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In her international comparative study of thirteen metropolitan areas, *THE URBAN CHALLENGE TO GOVERNMENT* (New York: Praeger, 1969, 294 p.) Mrs. Annmarie Hauck Walsh observed:

During the past decade, a dozen international conferences have discussed urban problems in Asia, Africa, Europe, and North and South America. Confronting the diversity of cultures, political systems, and economic resources of the world's nations, one might well wonder whether scholars and officials around the globe are, in fact, referring to a single common condition. The metropolis is a multifaceted phenomenon, and urban problems mean different things to different individuals ... (p. 3.)

Mrs. Walsh concluded, nevertheless, that in all their diversity, these thirteen cities hold certain things in common, as follows:

- (1) They share certain trends.
- (2) There is a similarity of demands on their urban governments.
- (3) They have universal characteristics of urban life and form.
- (4) Specific urban problems and goals are defined usually by a consensus among officials and specialists.

It is this latter task, a definitional one, which has claimed much of the time and attention of the Urban Development Staff since it became a reality at the end of August, 1970. As government officials and, presumably, as specialists in urban development, we have sought to

delineate some of the critical problems and issues which, we feel, must be addressed enroute to a definition of urban development policy for the Agency.

The problems approach has been deliberate and probably inevitable, given the already established pattern of defining key problem areas, which the Bureau for Technical Assistance has championed.

Moreover, urbanization often is defined in terms of problems, problems which have been "unleashed by (the) beneficent forces" of social and economic "progress," according to Lloyd Rodwin in the introduction to his new book, *NATIONS AND CITIES: A COMPARISON OF STRATEGIES FOR URBAN GROWTH* (Boston: Houghton Mifflin, 1970. 395 p.). The origin of these problems has made them nonetheless frustrating or explosive, Professor Rodwin observed.

We hasten to add, however, that we do not share the view that urbanization is primarily a negative process. We agree that the city is an "indispensable crucible for change and economic progress" (Rodwin, "Introduction"), and this is one of several assumptions which underlie our approach. We believe that urbanization contributes positively to national development. It is widely recognized that it holds considerable potential as a key manipulable variable. With better planning and implementation, the process of urbanization can make an even greater contribution to development. We believe also that such planning and implementation must be carried out with a greater awareness and understanding of the overall consequences thereof on urban life and national development. This requires a more comprehensive systems approach and much less

commitment to ad hoc projects and unrelated, piecemeal solutions.

The problems approach tends to cast developing countries in a light which only reveals shortcomings and brings out the worst. In our delineation of problem areas, frequent reference is made to conditions in developing countries. This is not to suggest that these conditions exist only in developing countries, or that only these conditions exist. Recent experiences in more developed countries have revealed the universal quality of many of these problems. They have underscored the fact that economic affluence is no panacea and that development is a much more comprehensive and ongoing process.

At the same time, it is recognized that efforts are being made in developing countries which are finding solutions to urban development problems and which may be instructive for other countries, including our own. There are also opportunities in many developing countries to address these problems with fewer of the encumbrances of past failures and existing programs and institutions which are obsolete and resistive of change in the climate of rapid change which prevails.

In this initial effort towards a definition of policy, we have attempted to look at urban development conceptually as well as operatinnally. We have eschewed a sectoral approach, deliberately avoiding definitions in terms of the usual infrastructural factors; such as, land use, industry, housing, water, communications, transportation, power, sewerage, administration, finance, etc. We have not yet developed a new set of priorities and projects. On the contrary, we have sought to conceptualize a new kind of awareness which hopefully will result in better approaches to urban problems.

In doing so, we have identified two distinct, yet related, sets of urban development problems (or problem areas). The first set of problems ranges widely over the field of urbanization, and is related primarily to the dynamics of the process. These problems are fundamental in nature, and are still shrouded in controversy. The resolution of these problems, which would seem to require carefully directed basic research, has definite implications for policy development.

The second set of problems consists of those which already are defined rather clearly. They are more "practical" in nature, and lend themselves more to direct solution. The main issue is the most appropriate means of solution. As with the resolution of the basic controversies in the first set of problems, the solution of these "practical" problems can make significant contributions to urban development per se and to urban development as it influences national development.

Early in her study, Mrs. Walsh noted that

(u)rbanization everywhere gives rise to new and mounting human demands, which, in turn, impose new responsibilities upon government and administration... (p. 3)

However, she concluded at the end of the study that

(u)ltimately, men, not governmental machinery, will determine the fate of the cities... (p. 231)

This, then, is our major objective: to help in the development and implementation of policies which will address more effectively the problems, values, and goals of urban growth and national development. In defining this task, we recognize that we, as yet,

...have neither accurate forecasting tools with which to anticipate urban growth nor thermostatic devices with which to alter its direction and scale. (Rodwin, p. 3.)

A. Basic Controversies

The problem areas in this first set are stated in the form of questions in this presentation. Each problem area is discussed briefly, indicating some of the issues involved, and some examples of policy options and implications are given.

The problems may be categorized as follows:

- (1) Growth
- (2) Determinants of Growth
- (3) Distribution of Growth.
- (4) Structural Pattern of Growth
- (5) Consequences of Growth
- (6) Management of Growth
- (7) Structure of the Urban System.

1. Growth

To what extent and in what ways is the rapid and unprecedented growth of the urban sector in the developing countries an incentive and/or a constraint with respect to socio-economic development?

There is currently little dispute in the literature over the notion that, for the now developed nations, the processes of socio-economic development and urbanization went hand-in-hand. It is difficult, however,

to establish a clear-cut cause and effect relationship. Some studies have shown that socio-economic development and urbanization are positively related in the less developed countries as well. Specific research in this field is still quite limited.

The controversy, however, turns on the rate of urbanization. How fast a rate of urbanization can a developing country experience or sustain without affecting adversely other developmental goals or objectives?

In the presently developed countries, at least until recent times, the movement of population from rural areas or small towns to the cities took place largely in response to a demand for workers in industry and complementary services. The process was a gradual one, taking place over centuries in some areas. Social, economic, political, cultural, and technological adjustments kept pace with the demands of urbanization, or were cushioned or masked by a relatively high level of prosperity.

Given the much faster rate of urbanization in the developing countries, the need for these economic, human, and environmental adjustments is being forced upon nations without the prior luxury of time. Nor is it known the role such pressures play in the development process. Does rapid urbanization enhance or restrict the creation of employment opportunities? How does rapid urbanization influence conditions and development in the rural sector?

These are some of the broader issues involved. Each of them in turn could be disaggregated into a set of more specific questions, whose resolution would help in deciding upon some of the policy options.

Examples of Policy Options and Implications: (a) reinforcing and taking advantage of urbanization and economies of scale; (b) avoiding diseconomies of scale and inefficiencies in other systems (for example, by encouraging the development of the rural sector in order to reduce the "push" from the rural areas and simultaneously adopting measures in the urban areas that would reduce the "pull" effect); (c) focusing on new technologies and developmental approaches geared to accommodating rapidly increasing urban populations.

2. Determinants of Growth

Is the principal determinant of urban growth in any given area the natural rate of population increase (births less deaths) or is it the rate of rural-urban migration?

This is a question about which popular notions could well betray the facts. Rapid urban growth is attributed frequently to the massive influx of rural and small town migrants. Moreover, it is implied that the natural rate of population increase in cities is less than that in rural areas because of lower urban fertility rates. Such assumptions without careful analysis of the facts for a given area, are unwarranted, and can lead to misguided policies.

Two factors require careful consideration: (1) urban death rates in developing countries tend to be significantly lower than rural death rates, contrary to the experience in economically advanced countries; and (2) urban fertility rates are not necessarily lower than rural fertility rates in developing countries. In fact, in a number of countries, urban fertility rates are the same as or greater than those for rural areas.

These two factors, taken together, can result in a high rate of natural increase in cities. Migration might make up only a small portion of a city's growth. Thus, activities that would seek to reduce the flow of rural-urban migrants could be a misdirection of efforts to reduce the rate of urbanization.

It is not entirely clear why urban death rates tend to be lower than rural death rates. Some of the more obvious reasons are: (1) better medical facilities and services; (2) higher literacy rates; and (3) better communications. Urban death rates are nonetheless very high by modern standards. They almost certainly will decline over the next decade or two, thus making probable still higher natural rates of population growth in urban areas.

Even less is known about the causal factors behind fertility rates. One would expect urban fertility rates to be lower than rural fertility rates, because in the urban areas there are: (1) better health facilities and services; (2) higher literacy rates; (3) lack of traditional agrarian requirements for family labor; (4) higher ages at first union; (5) lower marriage rates; (6) greater opportunities for female labor outside the home; etc. Other factors may suggest high urban fertility rates; such as, (1) more complete reporting of vital statistics; (2) better maternal and pre-natal care; (3) higher wages; (4) persistence of traditional values with regard to fertility and the requirement for male offspring; (5) fewer traditional restraints on meeting, marrying, and/or mating; etc.

In determining policies that would seek to control the growth of cities, there are many factors which must go into the decision-making process. Much that would seem obvious is not. The root causes of growth vary from city to city, and must be determined as a preliminary. Thereafter, appropriately balanced means must be developed and applied in order to control urban growth. All of which is based on the assumption that the possibility exists for controlling urban growth.

Examples of Policy Options and Implications: (a) target population for population control activities (i.e., focusing on population growth); (b) alternative means of population distribution (i.e., focusing on population flows); (c) differential application of policies (for example, by recognizing varying tribal or cultural patterns of migration and urbanization).

3. Distribution of Growth

Does the rural-urban exchange of population and resources meet the requirements of a growth population, especially when that growth is in the urban sector? How can an imbalance be avoided, particularly if the rural population also continues to grow in absolute terms?

In the advanced countries, to a large extent, the rural population has been absorbed into the cities. Capital-intensive, large-scale production techniques have enabled the farm sector to keep pace with increasing demands for agricultural products. A mutually satisfying exchange of goods

(balance of trade) has obtained between the urban and farm sectors with any intra-national imbalances being compensated for largely by international trade with hard currency countries.

In the developing countries such a satisfactory rural-urban exchange may be difficult to maintain for both demographic and economic reasons. Urban populations are growing very rapidly, but this growth is not generally accompanied by net decreases in rural populations. Both rural and urban rates of natural population increase tend to be high and rural-urban migration is not great enough in most countries to reduce rural populations in absolute terms (though relative percentages are declining).

If, in a given country or area, both urban and rural populations are increasing rapidly, agricultural production (productivity) and foreign trade must increase fast enough to keep food flowing to the urban sector. Theoretically, if the rural sector grows to the extent of consuming the bulk of its production, it will suffer from a lack of the goods and services produced in the cities and the cities will be forced to meet their food needs by direct confiscation of goods from the farmers. In reality, however, only the poor will suffer directly. Moneyed interests in both urban and rural areas will find the means of satisfying most of their needs.

The likelihood of this undesirable socio-economic situation developing in various countries is serious enough to warrant careful study of the general demographic and trade conditions from which it might evolve. The trends and potential of all the variables should be carefully studied and analyzed. These include rural-urban natural rates of population increase;

extent of rural-urban migration; magnitude and potential for agricultural production and international trade. The story they tell in combination should reveal a number of policy alternatives geared to maintaining a balanced rural-urban exchange.

Examples of Policy Implications: (a) a nation's future ability to feed itself; (b) a nation's future ability to govern itself; and (c) impact of (a) and (b) on determination of short-run policies and long-run strategies.

4. Structural Pattern of Growth

To what extent is the primate city form an optimal urban pattern for national development?
To what extent does it function also as a hindrance to more balanced and efficient growth?

There is a strong case for the proposition that in the early stages of development primacy may be a highly effective urban pattern in terms of significance for national development. It has the advantage of providing a pool of such scarce national resources as human intellect, skilled manpower, capital, and a variety of institutions necessary in the development process. Further, the primate city form facilitate division of labor, economies of scale, and minimization of spreading of risk for the entrepreneur. The primate city is a concentrated, easily accessible market for both foreign and domestic business and a viable center for international communications. In short, it is a vital focal point of modernization in an otherwise rather underdeveloped setting.

However, there may be disadvantages to primacy in later stages of development, related to the fact that primate cities tend to be self-reinforcing, whether primate within a region or within a country.

There is a tendency on the part of the primate city, being the seat of political, economic, cultural, administrative and demographic power, to resist the development of these powers in other regions. With this initial advantage, the primate city can continue the concentration and accumulation of these powers within itself, to the general detriment of other potential growth centers and their hinterlands.

The hinterland helps feed the growth of the primate city through the loss of its own human and other resources to that center, while getting very little exposure to modernization in return. It continues to suffer from what Myrdal terms the "backwash effect." Moreover, population and its profusion of human activities continue to be drawn in increasing numbers to the primate city, so the likelihood of diseconomies of scale increases in specific sectors or activities; i.e., transport, waste disposal, pollution control, public safety, public health, etc. Continued population concentration may point to expensive new technologies as the only means overcoming these problems (diseconomies), thus intensifying even more the propensity of the primate center to focus the nation's power and resources on itself.

It would seem then that it would be most important to know:

- (1) At what city size and under what conditions diseconomies of scale tend to set in for specific activities, and

- (2) At what stage of development the primate city structure ceases to be an asset to national development.

Examples of Policy Implications: (a) the requirements for attracting resources elsewhere; (b) implications of centralization vs. decentralization; (c) implications of focusing on existing centers, new towns, leading regions, lagging regions, etc. (See also, "Structure of the Urban System," below.)

5. Consequences of Growth

Are slums and squatter settlements "cancerous blights" to be eliminated as a matter of urgency for both humane and practical reasons? Do they play a positive role in aiding people in the complex process of adaptation to a modern way of life?

In considering what to do about slum and squatter communities in the developing countries, there are a wide range of factors that must be considered. Concerted efforts at renewal or removal might be the appropriate approach, but on the other hand this might be both impractical and counterproductive.

Reasons often cited in support of removal and renewal policies are that slums and squatter settlements are:

- (1) Physically ^{and} healthy. They breed filth and disease because of substandard sanitary facilities, close living conditions, inadequate shelter, inadequate health facilities, etc.
- (2) Mentally unhealthy. Substandard living conditions generate crime, delinquency, mental stress and frustration, and attitudinal patterns generally detrimental to society.

- (3) An eyesore. They create a bad impression on visitors and residents alike and act as a disincentive for both tourists and investors.
- (4) Politically volatile. The frustration, alienation, and dissatisfaction associated with slum living are tailor-made for political opportunities, and can lead to extreme political activism on the part of slum residents, possibly resulting in serious political instability.
- (5) Illegal. Slums violate a host of housing, sanitation, and other codes and regulations, and in the case of squatter settlements, they are in violation of fundamental property rights.

These points, however, represent only one side of a complex argument.

There is increasing evidence, for example, that:

- (1) Relative to rural health conditions, those of urban slum communities are higher. This is borne out, in part, in the generally more favorable vital statistics of urban slum communities.
- (2) Inhabitants of some slum communities prefer their life there to other possible alternatives. Attitudes in many slum communities are more fused with hope than despair, and self-generated slum improvement is not uncommon.
- (3) Slums and squatter communities serve as traditional, cultural shock-absorbers, easing the rural or small-town migrant less painfully into patterns of modern city life than might otherwise be the case.

- (4) Slum communities are relatively stable, or even inert, politically. The evidence seems to indicate that in the developing countries, urban political instability is a product of the middle and upper classes.

Aside from these factors, most of which require further research, there is the apparent potential for the slum as a temporary vehicle in the development process. Many slum residents came to the city because of a desire for change. There is, to that extent, an element of dynamism in these people that may be more vital than in other segments of society. This should be considered as a potential resource in the modernization process. Moreover, there is the slum community itself as an institution -- a "mini" economy with latent capacity for internal development. Its relatively low cost of living features could make it an attractive resource for small industries and other labor-intensive, economically productive activities. Also, there are numerous possibilities for increasing and prolonging the circulation of earnings within the community itself and thereby generating employment and opportunities for self-improvement.

Examples of Policy Options and Implications:

- (a) alternative means of housing the slum-squatter population;
- (b) reinforcing indigenous self-help efforts and otherwise harnessing the positive aspects of slum-squatter communities;
- (c) maximizing the economic potential of slums and squatter settlements;
- (d) linkages between the improvement of slum and squatter settlements and vocational training, manpower development, and employment programs.

6. Management of Growth

What are the root causes of the dissonance between comprehensive, well-integrated development plans and their uncoordinated, often irrational implementation? How can this dissonance be overcome?

Urban development plans are generally neat, clean and logical, seemingly representative of the best efforts of man. However, their implementation, with few exceptions among modern and developing countries alike, usually falls far short of expectations. It is a universal problem but the potential for successful planning is greater, perhaps, in the developing than in the developed countries.

In the United States, for example, implementation of plans is frequently frustrated by the fact that planned projects often must have funding allocated to them by the voting public through referendum. Hence, plans made in good faith are often ultimately scuttled or drastically revised because of failure to gain public support for financing. Nor is there any guarantee of legislative support, even when the legislature has been an active participant in the planning exercise. Home rule is another feature of the U.S. political structure that makes agreement on anything other than highly localized projects and plans a painful, tedious procedure. Sufficient involvement of the public in the planning process in order to insure support for financing, without at the same time subjecting the planning process to anarchy, represents a real problem in this country. Planning of a comprehensive nature is relatively new here and is constantly rubbing up against deeply ingrained political institutions and a continuing anti-planning bias.

In the developing countries, particularly those independent since WW II, political institutions are younger and more flexible while planning on the national and local levels is usually taken for granted. One might expect implementation of urban development plans to be encumbered more by lack of capital and technical skills than by political problems. However, politics, both bureaucratic and otherwise, seem to have an important influence on implementation of plans in developing countries, too.

It would be useful, therefore, to know more about the specific civic, political, and bureaucratic problems that hinder plan implementation. Planning is a classic vehicle for civic participation and administrative coordination in the decision-making process, but reasonable, balanced approaches will have to be developed. There is potential here for integrating the community into the planning and implementation of urban development and for making local governments and the communities they serve more responsive to one another.

Another aspect of the dissonance between planning and implementation could be in the fact that, particularly in the developing countries, planning based on a smoothly functioning well-ordered economy may conflict with economic reality. Hence, the planning process itself may, in many cases, be out of touch with reality. If this is the case, new, more practical planning approaches will have to be devised.

Finally, dissonance may result from too little rather than too much comprehension. Decisions made in one city in a system of cities may influence events in another city quite uncontrollably, forcing adjustment

in plans or frustrating implementation of projects in the second city. It is easy to envision, for example, that tax policies and/or infrastructural projects in one city can influence individual decisions (by firms, institutions, or households) in another. There are numerous other examples that one could cite. However, the implication is that, if planning horizons could be expanded to include entire systems of cities, as is being attempted by the N. Y. State Urban Development Corporation, perhaps less dissonance would occur in implementation.

Examples of Policy Implications: (a) political implications of formulating and implementing urban development plans; (b) development of the required administrative and financial resources; (c) consideration of regional and national urban development strategies and plans; (d) implications of combining in one location (office, department, level of governance) the planning and implementing functions; (e) implications of deliberately planning in the aggregate and implementing in the disaggregate.

7. Structure of the Urban System

Is there a city-size distribution or a spatial distribution of urban centers that is more efficient than others for given levels of national development?

This question of city-size distribution and spatial distribution of urban centers is one of perennial interest and great importance to those concerned with urban development or socio-economic development in a regional or national context. It encompasses a range of possibilities that includes urban primacy at one extreme and a smoothly gradated system of cities (when ranked from largest to smallest -- sometimes referred to in the literature as a log normal distribution or rank-size rule) at the other

extreme. The spatial distribution of the urban system or of isolated urban centers is likewise almost infinite in its possibilities. Nevertheless, the discussion seems to have narrowed down to the consideration of a number of specific basic patterns and to their relevance to particular development situations. It all turns on the strong possibility that the structure of a nation's system of cities has potential as an important manipulatable variable in national development.

A fundamental controversy is the question of whether primacy should be reinforced or discouraged as impliedⁱⁿ the discussion of the "Structural Pattern of Growth", above. Some of the arguments for and against the primate system were indicated there.

A natural sequel to that discussion is the question of the advisability of policies that would encourage the development of cities of intermediate size. It is argued that development of intermediate cities:

- (1) Reduces in a healthy way the domination of a national economy by a single major urban center.
- (2) Helps to avoid urban diseconomies of scale in important areas; such as, traffic management, education, public safety, recreational facilities, pollution and environmental control, public administration, waste disposal, housing, transportation, etc.
- (3) Helps to vitalize and modernize the hinterlands served by these intermediate cities through what Myrdal terms the "spread effect."
- (4) Helps in the development of transport links throughout the country and ultimately leads to an integrated system of cities.
- (5) Contributes to a more rational distribution of economic resources (i.e., industries, services, etc.)

- (6) Helps in the distribution of national income.
- (7) Helps in the development of lagging areas.
- (8) Helps to create political stability.

Equally persuasive arguments are given in opposition to this approach; among them:

- (1) Dissipation of scarce national resources (i.e., capital, skilled manpower, etc.)
- (2) Tendency for a lack of external economies and economies of scale in medium-sized cities
- (3) The necessity for heavy national subsidies to provide needed high per capita infrastructure
- (4) The limited supply of financial institutions and other diversified services and support industries
- (5) The relatively limited ability of moderate-sized cities to divert migratory flows away from major metropolitan areas.

A great deal more needs to be known about the validity of these various claims, both with respect to primacy and a more integrated system of cities. Major urbanization and developmental policies of the next several decades will be influenced by the answers. Presently there are policy actions being taken in both directions.

Another aspect of the same discussion is the question of the relative advantages of new towns. There are many inherent advantages to "starting from scratch," but it is also very costly and risks of failure are high. A great deal more needs to be known about new towns, what (in addition to

newness) are their advantages and disadvantages, and the various roles they can and should play in urban development strategies.

Related to this also is the problem of identification of those existing urban centers with the greatest potential for development. Given any system of cities there will be those in which investments in infrastructure, industry, commerce, social overhead, etc. will yield higher economic and social returns than other cities in the system. The problem is to identify those centers with the greatest potential for growth and then to know what policies are most suited to eliciting this growth. A great deal of work is needed in this area.

The question of agglomeration or the megalopolitanization of a region versus dispersion of urban centers requires special emphasis. Again, there are action policies in both directions. The question is this: given a particular country, which approach or combination thereof is the most effective in terms of attaining national goals? It is important to know what are the long-term benefits or repercussions of these approaches, and whether meaningful generalizations can be made.

Obviously, in the U.S., Japan, Great Britain, and other advanced nations, the trend since WW II has been towards megalopolitanization. There have been similar trends in certain of the developing countries, e.g., Brazil. The question turns on the relative advantages or disadvantages of this pattern for the developing countries.

Examples of Policy Options and Implications: (a) geographical allocation of national resources; (b) implications of focusing on existing centers, new towns, leading regions, lagging regions, etc. (see also "Structural Pattern of Growth," above); (c) coordination of development activities over space as well as time; (d) implications of de-emphasizing the role of the primate city in a nation's development.

B. Practical Problems

The second area of concern of this paper encompasses that set of problems which impinge more on the short-run, day-to-day operations of urban development. There is an endless profusion of these "practical" problems, depending upon how micro-analytic one chooses to be. However, we have identified as important six broad developmental problem areas which can be characterized as:

- (1) Skilled manpower
- (2) Application of scientific knowledge and technological innovations
- (3) Use of improved techniques and approaches for decision-making
- (4) New modes of analysis
- (5) Socio-economic inputs in planning
- (6) Service systems.

Each of these broad areas will be defined and disaggregated into relevant sub-problems. Some examples will be given, as well as possible approaches to solution. Those problem areas will be described in which solution-seeking activities seem most urgent.

1. Skilled Manpower

There are shortages in particular kinds of skilled manpower required for the conceptualization, planning, orchestration, and implementation of urban development.

Many urban centers in developing countries are growing rapidly without the benefit of planning (city plans) at all or with plans developed by colonial governments long ago and under very different circumstances. Planners themselves, where they do exist, frequently have been trained at a time and in a place that have very little relevance to the situation that now confronts them. In some situations planning is being done but not by professional planners. In such cases the probability of costly mistakes is high and confidence in the planning process is shaky.

In general, schools of city or urban planning have been slow to develop, and most developing countries lack them altogether. Schools or faculties of architecture and civil engineering are in abundance, but planning institutes per se are few. Moreover, professional planning itself is going through somewhat of a revolution. It is becoming much more interdisciplinary and less physically oriented in approach, and is tending towards more meaningful public participation. There is also both the tendency and the need (the need is even more apparent in developing countries) for urban planning in a context of metropolitan regions and larger socio-economic regions, including in some instances entire national economies and international economic regions. While a few developing countries are at the forefront of this change, for the most part they have yet to be touched by it. Hence there is a requirement not only for the production of more urban planning skills, but also for the updating of existing

concepts, practices, and instructional institutions.

Implementation of urban development plans and policies is another difficult problem which has received too little specific attention. It is an area of great challenge universally, but in the developing countries, with serious limitations on most of the required resources, skilled, imaginative management is even more important. There are far too few institutions that focus specifically on problems of urban administration in developing countries.

Some recommendations of possible solution-seeking activities are as follows:

- (a) Consideration of the most practical intermediate or stop-gap measures to improve and increase urban planning and urban management skills in developing countries. Traditional as well as new and innovative technical assistance approaches and appropriate policy orientation and actions in the developing countries would appear to be requisite.
- (b) Development of new and updating of existing urban planning and urban administration faculties and institutes in the developing countries. In the advanced countries there is a need for more conscientious encouragement and development of academic institutions and programs geared to problems of urban development in developing countries.

- (c) Creation of some effective media for meaningful and far-reaching international communication in the field of urban development, with particular emphasis on developing countries. There is enormous need and potential for cross-fertilization here.

2. Application of Scientific Knowledge and Technological Innovations

The magnitude of developmental problems is such that the latest in scientific knowledge and technological innovations, including ecological considerations, should be incorporated into the planning and implementation processes.

The problems of urbanization in the developing countries are so vast and complex that their solution must depend in part, upon as yet unforeseen advances in science and technology. Nor should we neglect the considerable potential in today's science and technology for helping to cope with existing problems and helping to avoid still others. There are a number of areas which, for the present and the foreseeable future, appear not to be susceptible to conventional approaches, available levels of financing, and existing resources. In these areas advances and new applications in science and technology offer some hope for solutions. Such areas are, for example, environmental pollution, ecological balance, mass transportation, waste disposal, basic education, communications, power, housing, building, and employment.

In many developing countries there is not yet a commitment to or investment in existing industrial and urban infrastructural technologies and, depending upon the new technologies developed, these would make excellent proving grounds for advanced approaches, many of which undoubtedly would be applicable in the developed countries. Moreover, the potential for

international (worldwide) involvement and pay off in these kinds of efforts is a factor not to be overlooked.

Alternative measures are required, and science and technology, given appropriate direction and backing, are capable of making important contributions. Examples of solution-seeking efforts which should be pursued are:

- (a) More labor-intensive technologies of production that would maintain production and quality, and increase employment opportunities without increasing costs overall. Western productive technology has moved steadily in the direction of increasing capital-intensiveness -- a direction that, until now, has been consistent with western goals, objectives and socio-economic realities. We do not, however, consider this course as inevitable for the developing countries. Particularly where large and potentially larger reserves of unemployed and under-employed urban labor exists, there should be an attempt, through scientific research and development efforts, to develop labor-intensive productive technologies.
- (b) Continued and intensified experimentation with alternative sources of power; e.g., solar heat may be particularly appropriate in desert and tropical climates. Ecological considerations should be paramount here.
- (c) Continued and intensified research and development in the field of housing and building techniques, materials, designs, etc. Here again, labor-intensive technologies should be sought.
- (d) Development of ecologically sound but economically feasible waste disposal methods that will not pollute and, possibly, will recycle waste materials as fertilizers, reusable fibers, glass, metals, etc.

3. Use of Improved Techniques and Approaches for Decision-Making

There is a need for improvements in, and increased applications of, existing techniques and approaches important to the decision-making process; e.g., cost/benefit analysis; pricing; land use analysis; data generation screening, and storage; information feedback systems; establishment of realistic and appropriate standards; etc.

Decisions influencing the allocation of resources, the spatial distribution of people, and the quality of human life are among the most important decisions made. Such decisions should be made on the basis of the best information available. However, too frequently the best information available is not good enough, the available information is not used, or it is not used correctly. This problem is universal to urban development decision-making, and is much more serious in developing countries. It is an area in which scholars and administrators alike can make significant contributions through increased use, refinement, and innovative application of existing techniques. There is a significant gap between potential and practice in urban decision-making, and it is important that deliberate steps be taken to bring about first a recognition of this gap and subsequently the elimination or reduction of the gap. This, in effect, amounts to the development of a "science of urban decision-making."

It is most difficult to introduce aids and new approaches into the decision-making process. They lack glamour and visibility. They tend to be painstaking and not easily understood. Most of these techniques have a credibility gap, moreover, that will have to be overcome. Too much ritualistic analysis has gone by the boards. Hence, a major challenge is to find ways to put vitality into basically sound analytical processes and to bestow on them an aura of credibility.

Examples of the kinds of decision-making aids and approaches referred to are as follows:

- (a) Cost/Benefit Analysis. This is a technique that should be applied much more broadly and effectively in the allocation of resources to urban projects. Moreover, effort should be made to include in the calculations a measure of social cost and benefit as well as the usual economic considerations. Good cost/benefit analysis should help also to get at the question of opportunity costs; for example, the price of investing in project A rather than project B; how much should be invested in infrastructure before investment in other projects would produce a larger monetary payoff or net gain to society.
- (b) The Pricing System. Knowledge of market behavior and phenomena can be a useful tool in the spatial distribution of people and resources. When its value as a behavioral tool is underestimated, many costly decisions are made. Unfortunately, its application in spatial dynamics is a relatively uncharted area, and much more needs to be known about it.
- (c) Land Use and Location Theory. Consideration of alternatives in land use decisions should be more conscientiously incorporated in the urban decision-making process. Here again, environmental considerations, as well as the availability of some relatively sophisticated tools of analysis, have added new dimensions to land use analysis. They should be applied. New break-throughs have made location theory a more powerful analytical tool and this too

should be applied where practicable in land use analysis.

(d) Information. Cutting across almost all aspects of urban decision-making is a requirement for more effective and more relevant systems for generating the data, information and feedback needed in analysis of urban development problems and decisions. To a very great extent, the depth, breadth and validity of these systems will determine the effectiveness of many of the analytical tools. Some means of evaluating these systems is almost a prerequisite to meaningful analysis and efficient decision-making.

(e) Standards. Also related to all aspects of urban decision-making are the establishment and maintenance of acceptable and realistic standards. These provide the orders of magnitude and criteria essential to the decision-making process. Standards are also prerequisites of meaningful evaluation.

4. New Modes of Analysis

New modes of analysis are required where developmental problems are such that conventional analytical approaches are inadequate.

Urban development is a relatively new field, and many questions remain unanswered. There is still a relative paucity of analytical techniques. This is all the more so when planning horizons are elevated above the familiar single urban center to include a metropolitan region, an economic region, a system of cities, or questions relating to regional or national urbanization strategies.

There is a distinct urgency for the development and use of new modes of analysis and for the rapid dissemination of results. Decisions are in process in several countries which require better analytical and informational foundations. Examples of problems areas in which existing modes of analysis fall short and for which innovations are badly need are:

- (a) Growth Center Analysis. There is a need for appropriate measures to establish the relative growth potential of the various urban centers in a given region, country, or system of cities.

This is becoming increasingly important as countries begin to look towards strategic decentralized urbanization strategies as a means of controlling growth and overcoming economic backwardness on the periphery of large cities/ and in lagging regions. Given the seriously limited resources of most developing nations, it is of critical importance to make optimal urban investments.

- (b) Urban Growth Components. The sequel to the above decision as to location of strategic investments relates to the appropriate areas of investment in potential growth centers. Analytical techniques have to be perfected that will indicate what kinds of investment will tap most fully the potential of the chosen center to grow.

- (c) New Towns. The concept is not new. In today's context of rapid urbanization and the need to develop more rapidly the concept takes on new dimensions. Developing countries require better analysis

of all of the factors and more and better information with which to make the necessary decisions about the where, when, why, and how of new towns in the framework of urban and national development.

5. Socio-economic Inputs in Planning

There is a need, in the interest of socio-political stability and a more equitable distribution of progress, for more of a socio-economic focus in the planning process.

Urban planning has traditionally been a matter of esthetics, engineering, and economics. However, in recent years this triumvirate has yielded to encroachment by some of the softer sciences such as sociology, psychology, educational science, criminology, and anthropology. This situation has been dictated, more or less, by social and political realities and the awareness that urbanization and city growth have undergone considerable change in past decades. Suddenly problems which 25 years ago were unforeseen by most are hard upon the majority of the major cities; problems, such as, dangerously high unemployment rates; spectacularly rising crime rates; lively trade in narcotics; overcrowding and overstretching of housing, sanitary, recreational and educational facilities; and prospects of rapid population growth for the foreseeable future. Urban planning and urban development strategies must be responsive to these emerging problems and this calls for more than esthetics, engineering and economics.

Appropriate responses are still in question, and there is still much groping. In many countries responses have been inappropriate, weak, or non-existent. There is a great need for coming to grips with the essence of the various socio-economic problems and attempting meaningful solutions.

Because planning should be a flexible and responsive process, there undoubtedly will be tradeoffs between and reconciliation of such diverse goals as efficiency, growth, amenities, and welfare. This "new-breed" of urban problems should be apart of the planning process.

Examples of such problems are:

- (a) Unemployment. New approaches to the problems of urban unemployment will have to be developed. These approaches should draw on conventional wisdom and past experience but not be the captive of them. This is unemployment of a nature that is unprecedented in modern history and innovations are required. (See also, "Consequences of Growth" and "Application of Scientific Knowledge and Technological Innovations," above.)
- (b) Marginal Elements. Every socio-economic order has its marginal elements, but the term usually refers to a small minority. However, *in* many of the cities in developing countries, those elements of society existing off the socio-economic margin constitute the majority. They are a vital component of urban society and somehow they have to be incorporated into (to share in) the development process. This will occur naturally to a limited extent, but the rapidity of urban population growth is a complicating factor. There again, innovative solutions are in order. An example of the challenge to planning in relation to marginal groups can be seen in the location problem. If migrants (squatters) settle in locations which

are inaccessible from an engineering or other standpoint by urban services such as sewage lines, waste disposal, mail, etc., there is little that can be done to improve their living conditions. It is important to guide such population increases into areas that are at least serviceable at some future time. Here there is a great need for methods to forecast the dimensions and directions of urban growth -- a very difficult task.

(See further, "Consequences of Growth," above.)

- (c) Urban Education. Educational aspirations and requirements for new masses of people are increased considerably in a dynamic urban setting, creating new and unforeseen strains on the educational system. Expansion of traditional educational infrastructure is an unrealistic approach, given the magnitude of the requirements. New concepts of mass education will have to be developed, and technological innovations can aid in their application. (See further, "Application of Scientific Knowledge and Technological Innovations," above.)

6. Service Systems

There is a need for the development of service systems which are integral parts of and compatible with urban development and national development. That is, a systems approach is needed to such service delivery systems as transportation, administration, health, etc.

There is world-wide concern that there is not only a lack of much-needed services and service infrastructure, but also that the services and infrastructure which exist are costly, ineffective, and fail to reach those for whom they are intended. As costs and demands for services rise, there seems to be a corresponding decline in the ability of existing systems to deliver. This was a major concern of the Community Action Program of the War on Poverty. It continues to be a priority consideration in Model Cities programs in the USA, in Latin America, and in other places in which this approach has been attempted. Where such lacks and ineffectiveness are less disguised by affluence, as in developing countries, they are more stark, and the need for corrective action is more acute.

At the same time, the structure and functioning of one service system sometimes is counterproductive to another service system. This may occur within an urban area, a region, or a country, and may affect also urban and national development goals. Since service systems in most cities are planned and implemented in isolation from each other, more or less, there is a lack of coordination. Worse still is the waste of extremely scarce and costly resources. It is, perhaps, the effects on human resources which are the least calculable and most devastating.

An important idea of the systems approach is awareness of the consequences of policies and actions. These consequences may affect other parts of the system, even though the policies and actions which produce them are designed to fulfill more narrow goals. While all consequences cannot be anticipated or delineated, it is important to be sensitive to the possibility of important and wide-ranging fallout effects and to allow for them.

The systems approach to development is probably more appropriate in the urban sector than in any other aspect of the national economy. Here the interaction of systems is so obvious that the urban setting provides an equally great opportunity either for harmony or disharmony in the functioning of its collective machinery.

Some of the service systems for which a systems approach is essential to urban growth and national development are:

- (a) Transportation Systems. Various modes of transportation are needed for a balanced and effective network which can ensure the efficient flow of people, goods, and services. It would be inconsistent, for example, to invest in expensive freeway systems in a city to speed and facilitate commuter traffic if it would mean the disruption of intra-city vehicular and pedestrian traffic. Similarly, it would be unwise to ban a major city's pedicabs for the sake of diminishing downtown congestion and making cosmetic improvements without first determining what effect this would have on the millions of people who depend on pedicabs for transport and the hundreds of thousands who depend upon them for a livelihood.

Such services and opportunities are essentially irreplaceable in a low income area.

(b) Social Services Systems. Effective delivery systems are needed for essential and relevant health, education, and welfare services. In the United States street academies are trying to deliver the services which the traditional educational system has failed to provide adequately. Neighbor/^{hood} health clinics and legal service organizations are attempts to overcome deficiencies in other service delivery systems. Approaches far more controversial than the introduction of practical nurses after World War II are being made to overcome personnel bottlenecks in service delivery systems. Nor are these efforts confined to or needed only in developed countries. Tradition is precious to the new adherent also, and innovation is difficult. With fewer institutional arrangements and job opportunities as alternatives, as well as fewer resources, in developing countries, the tendency has been to imitate the more advanced countries rather than to ^{design} institutions and services to meet local requirements. A more total, systematic, and creative approach is needed to overcome the piecemeal and fragmented attempts which exist.

(c) Administrative Systems. Systems are needed which will serve to administer the various aspects and components of urban development and to coordinate and to rationalize them with each other and with national development. Change is the byword in urban growth and development, particularly as it is being experienced in the developing countries. There is steady pressure for new and increased

government services and new organizational patterns and administrative techniques are required. The systems approach is a valuable concept. Administrative changes should reflect themselves throughout the system and in turn be a reflection of a changing system. Administrative changes are far less effective when they occur piecemeal. In many instances, in fact, change cannot occur piecemeal; it must be reflected throughout the system before it becomes operational.