International Institute for Applied Systems Analysis
IIASA www.iiasa.ac.at

Growth Strategies and Human Settlement Systems in Developing Countries

Hansen, N.M.

IIASA Research Memorandum
January 1976

RM-76-2

GROWTH STRATEGIES AND HUMAN SETTLEMENT SYSTEMS IN DEVELOPING COUNTRIES

Niles Hansen

January 1976

Preface

This paper is an outgrowth of the author's participation in the Symposium on Industrialization Strategies and the Growth Pole Approach to Regional Planning and Development: The Asian Experience. The symposium was held in Nagoya, Japan, 4-13 November 1975 under the auspices of the United Nations Centre for Regional Development, Nagoya. The paper also complements the author's earlier paper in the same series on "Systems Approaches to Human Settlements," which was primarily concerned with developed countries.

Papers in the IIASA Series on Human Settlements and Services: Development Processes and Strategies

1. Peter Hall, Niles Hansen and Harry Swain, Urban Systems: A Comparative Analysis of Structure, Change and Public Policy, RM-75-35, July 1975.

2. Niles Hansen, A Critique of Economic Regionalizations of the United States, RR-75-32, September 1975.

3. Niles Hansen, International Cooperation and Regional Policies Within Nations, RM-75-48, September 1975.

4. Peter Hall, Niles Hansen and Harry Swain, Status and Future Directions of the Comparative Urban Region Study: A Summary of Workshop Conclusions, RM-75-59, November 1975.

5. Allan Pred, The Interurban Transmission of Growth in Advanced Economies: Empirical Findings Versus Regional Planning Assumptions, forthcoming.

6. Niles Hansen, Systems Approaches to Human Settlements, forthcoming.

Abstract

Until recently it was almost an article of faith that urbanization and capital intensive technology are the keys to development. However, many critics now maintain that the western-inspired urban-industrial model may not be applicable to developing nations and that this is not simply a matter of differing stages of development. The way in which one views these issues has important implications for human settlements policies. This paper thus examines the positive role of cities in national development, problems of strictly economic approaches to development, and the case for greater emphasis on agriculture and rural development. The final part is a critical summary of the state-of-the-art with respect to economic development and human settlements policies for developing countries.

Growth Strategies and Human Settlement Systems in Developing Countries

Niles Hansen

Introduction

Those economists and planners who identify level of per capita gross national product with either individual or social welfare represent a small and dwindling group. Nevertheless, while it is true that more economic wealth does not necessarily result in greater quality of life, it is equally clear that human well-being is not promoted by circumstances of involuntary poverty. Thus, the desire of developing countries to attain higher standards of living is readily understandable. What increasingly is at issue is whether the developing countries should emulate western approaches to economic development. Until recently it was almost a universal article of faith that urbanization and capital intensive technology are the keys to development. Now it is becoming fashionable to maintain that the western-inspired urban-industrial model may not be applicable, or at least not wholly so, to developing nations and that this is not simply a matter of differing stages of development.

The way in which one views these questions has important implications for human settlement policies. The following sections deal, respectively, with the positive role of cities in national development, problems of strictly economic approaches to development, and the case for greater emphasis on rural areas. The final part of the paper is a critical summary of the state of the art with respect to economic development and human settlements policies for developing countries.

The Positive Role of Cities in Developing Countries

Although national patterns of urbanization vary a great deal according to complex and interrelated historical, cultural, political, economic and geographic factors, there is a direct relationship between degree of urbanization and per capita gross national product. For this reason alone the growth of cities in developing countries has been viewed as a positive phenomenon. However, the structure of urbanization in developing countries usually differs from that in most western countries. The latter tend to have city size distributions that follow the Zipf rank-size rule, i.e. there is an urban hierarchy consisting of a few large metropolises, a larger number of medium-size cities, and a still larger number of small towns (if city population size and population rank are plotted on double log paper the resulting distribution is linear). In contrast, developing countries tend to have a "primate" city (or a very few large cities) dominating the rest of the nation in terms of both size and influence.

There is a large postwar literature deploring the "dual economies" resulting from primate urban structures. In part this has been a reaction to the persistence of a colonial inheritance, but western theories concerning human settlement patterns have contributed significantly to this position. For example, national political and economic unity have been attributed to countries with the rank-size distribution of cities just mentioned. Empirical evidence in this regard is not conclusive, but it has been argued on theoretical grounds that "depending on the economic and political circumstances in a particular country, widely different rank-size distributions may be considered as optimal. Particular rank-size distribution parameters can not give any clues that might help in the national planning decision processes [von Böventer, 1973, p. 157]."

Dissatisfaction with primate city structures is seen even more clearly in the widespread explicit and implicit acceptance of the western hierarchical diffusion model of spatial-temporal growth and of the related growth center approach tó regional development. The hierarchical diffusion model assumes that growth-inducing innovations occur in large cities or metropolitan areas and then filter down over time through the urban hierarchy; moreover, impulses of economic change also spread from urban centers to their respective hinterland areas. If this theory in fact explains how the development process works than nations without a well articulated urban hierarchy will find it very difficult at best to promote economic well-being over the whole of the national territory. Acceptance of the theory also explains why growth center policies have been so widely adopted; it follows that they are needed to fill in gaps in the hierarchy so that the filtering process can operate, along with concomitant beneficial spread effects to lagging hinterlands.

An influential paper by Lasuén (1973) placed the hierarchical diffusion process in an international framework. Lasuén identified the development process with that of the generation and adoption of innovations. Nations develop according to the degree to which they adopt innovations brought forward internationally; in other words, the international development process affects nations according to the way in which particular national urban processes react to it. In the developed countries the spread of innovations has been accelerated by the existence of multi-plant firms because the filtering process works much faster in these firms than under conditions where single plant firms are prevalent. In developing countries the plant and the firm are generally identical; the spatial spread of innovations in developing countries is relatively slow because it is a result of a host of unrelated individual decisions.

Lasuén poses the question of why adoptions occur at all in developing countries. The lack of complementary external support for innovations in developing countries is in part offset by lower risks resulting from the fact that most of the innovations have already reached the stage of standardization abroad. Moreover, the assumed innovation to be adopted is usually already well known in local markets because of imports from developed countries; the product demand is there. Finally, high costs of production resulting from small scale are not a deterrent because innovation adoptions are forced on developing countries by balance of payments difficulties and consequent import substitution policies. Significantly, innovation adopters usually are persons who previously were importers, distributors, servicers or producers of substitution goods, familiar with the marketing, financing and technical characteristics of the product. They adopt so that they will not be driven out of business by import substitution. As a result, the spatial structure of new productive activities is nearly identical with that of the former marketing network of the product. Innovation adoptions occur where the largest previous market areas of the product were found, normally the largest city. New producers are pressed to satisfy their own local demand and cannot supply smaller towns. Eventually, however, producers spring up in other local market areas in spite of their smaller captive markets. Thus, most innovation adoptions start in the largest cities and gradually trickle down through the urban hierarchy. This is true, argues Lasuén, whether the product in question is market-oriented or resource-oriented because at this initial stage production is tied to the location of the market.

Given Lasuén's theoretical context, only two basic alternatives are open to developing countries. The first is for the largest urban center or centers to adopt new innovations before previously adopted innovations have filtered down through the urban hierarchy. The second is to delay the adoption of innovations at the top of the hierarchy until previously adopted innovations have been adopted in the rest of the country. The first choice would result in a perpetuation of economic dualism; the second would lead toward greater equality among regions but the nation as a whole would be less developed because older and less efficient technologies would be utilized. In practice nations do not follow either of these extreme paths but most tend to prefer a dualistic economy to one which is spatially eqalitarian but retarded.

So long as the developing countries continue to adopt innovations that originate in the developed countries it is difficult to imagine that disparities between them will be closed to any marked degree in the near future. However, this does not mean that per capita gross national product will not grow in developing countries or that interregional disparities within these countries will not diminish. Indeed, both cross-section and time series analyses indicate that there is a systematic relation between national development levels and regional inequality or geographic dispersion. Rising regional income disparities and increasing dualism is typical of early development stages, whereas regional convergence and a disappearance of severe dualism is typical of the more mature stages of national growth and development (Williamson, 1965; see also Gould, 1970).

Japan's development illustrates that

> there is a fundamental conflict between high economic growth and decentralization of population. If a high rate of economic growth is to achieved, further concentration of population into a few metropolitan areas can not be avoided.
>
> However, the continuation of a high rate of economic growth would sooner or later lead to equalization of income and wage levels within the country. Then, the reduction in income disparity among regions would, in turn, prevent further concentration of population. Therefore, population concentration would be a temporary problem for developing countries [Mera, 1975, p. 28].

Convergence of Japanese prefectural per capita incomes started to appear around 1961 and continued in parallel with a generally high rate of economic growth. This phenomenon appears to have been caused by convergence in wage rates among different parts of the economy, which in turn resulted from a tightening of labor markets. It is worth noting that the Japanese government had not yet adopted a policy of decentralization during this period. Moreover, there is no evidence of decreasing economies of scale or increasing diseconomies in large metropolitan areas. Rather, what occured was an upward shift of relative incomes in other areas, usually immediately outside of metropolitan areas.

It would be rash to propose that developing countries should merely wait patiently because there is an automatic mechanism that eventually will eliminate or significantly reduce regional disparities. But alternatives already mentioned have their own problems. Rapid population concentration might be avoided by lowering the national growth rate but this would result in lower per capita income and the persistence for a longer period of time of already existing disparities. The growth center strategy is another option, but as Mera points out on the basis of Japan's experience, "it can be said that this strategy is effective in expanding the zone of metropolitan influence, but for relieving satisfactorily the problems of income disparity and population concentration, the strategy would require a cost which is either impossible to pay or too high to justify [Mera, 1975, pp. 28-29]." More general evidence also indicates that growth center strategies are likely to be not only very costly but also ineffective. As mentioned earlier, these strategies assumed that spatial-temporal growth processes are characterized by hierarchical filtering and hinterland spread. Pred (1976) in particular has taken issue with the assertion by Lasuén and others that economic growth takes place by the trickling down of innovations through the urban hierarchy. On the basis of a vast amount of empirical evidence from developed countries he shows that the hierarchical filtering notion is deficient because it ignores the overriding significance of nonhierarchical input-output linkages and employment multiplier channels. This does not necessarily mean that hierarchical filtering does not take place internationally, between cities in developed and developing countries; here more evidence is required. However, with regard to hinterland spread effects from induced growth centers in lagging regions, there is abundant evidence from both developed and developing countries that they simply fail to appear to any significant degree (Pred, 1976; Hansen, 1975).

A final issue that needs to be considered is the role of large third-world cities as migration centers. Frequent references are made to "pseudo-urbanization" and "premature urban immigration." One of the major conclusions of a recent United Nations seminar on urban development strategies was that "An important problem in Asian cities is the presence of a large pool of unemployed or underemployed unskilled workers who have to be gradually drawn into the modern sector during the developmental process. How to keep this sector of the population within reasonable proportions appeared to be the crux of the problem in the major urban centres in developing countries [United Nations, 1974, p. 18]."

This problem is most evident in the squatter settlements that account for a large share of the populations of large- and medium-size cities in developing countries. "The inherited conventional wisdom leads to an interpretation of such settlements as physically decrepit slums, lacking in basic amenities, chaotic, and disorganized--an attitude that persists in much of the urban planning community, which tends to interpret such settlements as obstacles to good civic design [Berry, 1973, p. 83]." However, whether viewed in terms of human welfare or economic development, the growth of a large marginal urban population is not necessarily undesirable.

It cannot be denied that urban squatters have deplorable living conditions and insecure employment. Nevertheless, most migrants feel that they are better off than they were before moving to the city, where access to services--especially schools and clinics--is far better than in rural areas. Most migrants find jobs rather quickly and advancement from the lowest occupational categories is probably widespread. Moreover, squatter settlements are not usually the first stop for the incoming migrant but are more often established by families with longer urban experience. Where squatters are not harrassed by the authorities and where terrain and initial density of settlement permit, many of these settlements evolve over ten or fifteen years into stable, acceptable working class neighborhoods. In other words, squatting often provides immediate relief from the burden of rent and the threat of eviction, and it offers the longer run prospect of at least a minimum of comfort and respectability. Migration to cities also removes redundant labor from agriculture; even though productivity may be low and falling in the overloaded tertiary sector of many cities, it is still higher than productivity in agriculture. And residence in the city exposes the migrant to modernizing influences and improves his chances to acquire skills, however modest (Nelson, 1970). Because of the self-improving nature of squatter settlements the United Nations Center for Housing, Building, and Planning now stresses the acceptance and support of their longer run existence and of adequate pre-planning for their future development. Conversely, it is acknowledged that attempts to clear such settlements generally waste scarce public resources and aggravate the problems of the people concerned. Thus, the Center recommends that governments make normal urban utilities and community services available to transitional settlements, according to priorities worked out with the collaboration of the residents themselves. Better still, of course, would be planned land acquisition and development in advance of need, taking account of utility and community facility requirements as well as transportation and residential location in relation to employment opportunities (Berry, 1973).

In sum, then, it could be argued that urban-industrial growth under conditions of (hopefully temporary) economic dualism offers the best long-run hope for developing countries and that in any case feasible alternatives have not been demonstrated. For the immediate future, the large cities will continue to be centers of development and links to an increasingly international economy. Although growth is slow to centralize in developing countries, migration enables increasing numbers of people to take advantage of the relative opportunities offered in primate cities. For the longer run there is considerable empirical evidence that regional disparities will diminish. In this perspective planners who try to inhibit, divert, or even stop growth in large cities are banal if not completely negative. Yet the voices raised against present tendencies are sufficiently numerous and respected that they deserve a hearing.

Although advocates of "more balanced growth" usually do not specify precisely what they mean by this term, it generally implies "more emphasis on rural development." Proponents of rural development usually tend to devote more attention to social and political factors than is the case in the literature emphasizing urban-industrial growth. For example, it was pointed out earlier that the hierarchical filtering model of Lasuén has been criticized in space-economy terms. However, to the extent that its descriptive aspects are a fairly accurate representation of spatial-temporal economic development processes, the world it depicts is not acceptable to many reform-minded persons in developing countries.

The Limitations of Economic Engineering

Lasueñ maintains that the only feasible way developing countries can absorb successive innovation clusters more rapidly is to reduce technical and organizational lags by overriding national boundaries and planning multi-national firms on a continental basis. He notes, though, that even though the countries of the European Economic Community are ready to pool their markets, they have considerable difficulty in merging their firms into multi-national enterprises. "As everybody is aware, the only really multi-national firms in the Common Market are the subsidiaries of the large multi-product multi-plant American conglomerates [Lasuén, 1973, p. 187]."

But how, under present institutional conditions, are the developing countries supposed to do better in this regard than the nations of Western Europe? Moreover, it is quite possible that the very efforts of multi-national corporations to extend their operations in developing countries can have negative results from a developmental perspective; they are part of a process which leads to the accelerated growth of a subsystem oriented toward the demands of a small privileged section of the population (in Latin America, for example, 5 percent of the population accounts for over 50 percent of the demand for commodities) without changing the status of the workers and peasants.

> The conditions required for world poles to develop their branches in backward countries restrict the possibilities of drastically changing the internal situation through cooperation between such countries. Such conditions therefore restrict the possibilities of allowing the productive apparatus to serve the population. In Latin America there is clear evidence that the slightest reformist attempt to change the "internal" structures immediately affects "external" interests and provokes a negative reaction. This reaction can take the form of "internal" efforts to modify the internal structures again or else it can take the form of external pressure, the effect of which is not limited to the enterprises that are directly concerned (Corragio, 1975, p. 369).

Although these conclusions are stated in rather abstract terms, ample concrete examples of foreign private and governmental (not always independently) meddling in the internal affairs of developing countries have been reported in the press. Moreover, these initiatives, when they have originated in the West, usually have favored conservative social structures.

Generally speaking, the assumptions behind the notion that a strategy of economic polarization and dependent integration is equivalent to a development policy for developing countries has been criticized on four grounds. First, this approach erroneously assumes that there is no structural unity among social, economic and political phenomena. This in turn implies that a strategy aiming at social objectives can be reduced to purely economic terms; social and political considerations can simply be tacked on later. Second, it assumes that international relations take place in a harmonious context. Third, the State is an idealized, autonomous element in the social system; it is regarded as apart from any real power structure. Similarly, it is assumed that a neutral, rational bureaucracy exists. Thus application of the strategy would not bring about changes in the predominant political structures. Finally, the strategy assumes that polarization mechanisms can be reproduced independently at any level. What these criticisms add up to is a contention that a theory of regional development must be embedded in a theory of social change. Without denying that the main problems of development have an economic basis, it is impossible to compose a strategy of development through "economic engineering" alone (Corragio, 1975).

Redressing the Neglect of Rural Poverty

Perhaps the principal criticism of the technical economics approach to development is that high aggregate growth rates and new power projects, ports, highways and other large infrastructure projects have been largely irrelevant to the mass poverty of rural societies. In keeping with this view is the notion that the developing countries have become overly dependent on the West because they have passed up opportunities in the agricultural sector, and particularly in small farms.

In fact a rather strong argument can be made that the small farmer has been neglected undeservedly. For example, output per acre of basic food grains in Egypt is 3,515 pounds; in Taiwan it is 3,320 pounds. These figures are higher than in the United States as well as in most other developed countries. Yet they reflect intensive agriculture on plots that average as little as two or three acres. If India's agriculture were organized as efficiently as that in Egypt her food grain surplus would be twice that of the total world trade of food grains in 1972. If medium-size countries such as Nigeria, Mexico, and Pakistan could double their agricultural productivity--which would still leave their yields per acre well below those in Taiwan and Egypt--the gap in the worldwide supply of food grains would disappear. Bottlenecks in the developing countries appear to account for the difference between their present situation and a steady annual increase of 5 percent. The most important impediment is the treatment of the peasant farmer. Representative thinkers of both the collectivist left and the feudalist right have maintained that land reform favoring the individual peasant will only create a depressed peasantry, incapable of applying the knowledge necessary to increase productivity. Yet in Ceylon the rice yield has been 36-37 bushels an acre on farms of less than one acre and 33-34 bushels on larger plots. In central Thailand yields have been 304 kilos an acre on holdings of two-to-six acres but only 194 kilos an acre on holdings of six acres or more. Similarly, in Argentina, Brazil, Chile, Columbia, Ecuador and Guatemala, average yields per acre have been three to fourteen times greater on smaller farms than on larger ones. Such findings suggest that there are limited economies of scale in most farm production. But they also indicate that small-scale farmers tend to maximize output by the intensive application of labor, whereas larger farms attempt to maximize profit by using hired labor until marginal revenue equals marginal cost. But this usually results in an output which is less than that which would obtain if the aim were to maximize output (Power, 1975).

Favorable access to credit can provide an incentive to adopt technologies that otherwise would be too expensive. Farmers have traditionally depended on credit but funds from money lenders or hacienda owners have often carried interest rates of 40 percent or more; and credit from banks and government agencies is commonly reserved for richer farmers. Moreover, good agricultural ideas are useless unless they reach small farmers. Someone needs to be on hand to provide information on improved seeds, fertilizers, rotation systems, farm implements, wells, and so forth. Preferably this person should live among village people, know their ways, and have their trust. In developed countries there is approximately one government agricultural agent for every 400 farm families; in developing countries the corresponding ratio is one for every 8,000 farm families. Similarly, whereas developed countries spend $120 to $150 per year for each farm family on research, the corresponding figure in developing countries is only $2, even though evidence suggests that tropical farms applying the best methods of modern science can attain yield increases of six to 16 times present levels. Underlying these data is the inadequacy of agricultural topics in the education system. Schools and universities, whether established by old colonial regimes or new-nation governments, tend to regard agriculture as not worth teaching. Such neglect cannot simply be blamed on overdependence on the developed countries, though it contributes to this condition (Power, 1975).

Besides the agricultural sector, dispersed or regionally decentralized industrialization also appears to require fairly widespread rural prosperity. Otherwise local markets are not able to sustain even small-scale consumer goods production and national markets cannot be reached for technical and other reasons, including inadequate transportation means. Thus:

> industrial dispersal programs which are not justified by sufficient local demand or linked to already established industrial regions result in waste of capital and organizational resources. In the case of retarded regions and pockets of unemployment distant from industrial centres, the first planned effort must concentrate on the upgrading of agriculture. This, in turn, requires the building up of agricultural infrastructure, i.e. water control, irrigation and local transportation. If agriculture can be made to prosper, the source of a growing local demand for ancillary services and consumer goods is also established. Under such conditions, it becomes reasonable to expect that potential investors in small scale service and consumer goods industries will find the motivation to locate in dispersed and remote areas [Lefeber, 1975, p. 291].

But what kinds of regional policies are likely to bring about rural prosperity consistent with the objectives of greater personal and regional equity? Here the Indian case is instructive.

After the failure of widely but thinly spread efforts to generate dispersed agricultural development the Indian government launched, in 1960, an Intensive Agricultural District Program (IADP) which concentrated effort and resources in a few potentially promising areas. It was hoped that the development thus gained would spread to non-program areas. The results were mixed, but whatever the productivity advances, the income distributional effects ran counter to the attainment of equity objectives. Even in successful areas unemployment was not eliminated, while the number of landless persons increased because of plot consolidations and termination of tenancy. Employment increases did not match productivity increases because of the increasing capital intensity of production. Indeed, the IADP may have had the paradoxical welfare consequence of interrupting the momentum of agricultural development as a result of inadequate growth of low income demand for food and staples. To the extent, therefore, that widespread rural prosperity is a prerequisite for decentralized industrial development, the IADP approach, by increasing income differences, cannot contribute to decentralization. Here again what appears to be called for is a policy focused on raising the productivity of the average farmers rather than on benefiting farmers who already are capable and efficient (Lefeber, 1975).

Improving Access to Economic Opportunity: A Critical Summary

How then can rural poor people be given greater access to economic opportunity? Imaginative thinking in this regard emphasizes greater direct involvement of local people in the development process and spatial organization in terms of functional economic areas. In the developed country context the functional economic area concept was pioneered by Fox (1967) and Berry (1967), who stressed commuting fields as the basis for delineating economically meaningful units of analysis. Possibilities for simulating in nonmetropolitan areas the greater scale and opportunities available in metropolitan areas were suggested by Thompson (1969) and expanded in more detail by Hansen (1976), who also stressed the importance of human resource development. However, these studies made explicit and implicit assumptions that are not applicable in rural areas of developing countries. The latter have no mass automobile ownership and often no real immediate possibilities for motorized public transportation systems. And the resources available are vastly smaller than those available even to lagging regions in developed countries. Nevertheless, some of the ideas in the foregoing literature have been adapted to developing countries. For example, a major penetrating analysis of rural problems in these countries concludes that

> The goals of rational spatial policy should be the creation of truly functional economic areas, which will provide employment opportunities not merely in primary production (farming, mining, forestry, fishing) but in industry and in service activities, thus utilizing to the full the varied potential productivity of a work force. Furthermore, by creating a sense of "community" there can be a far better protection of regional ecology than is possible if "outside" enterprises without any local roots "mine" the natural resources and pollute the rivers and the air. The main goal of rational spatial policy should be to improve the quality of life in a community not only by providing tasks appropriate to interests and ability but by protecting the environment, by supplying the proper educational facilities, health measures, and convenient recreational facilities. But beyond all these ends of enlightened policy should be a goal even more important: the creation of a cultural milieu that will release the largest possible amount of a community's creative power [Johnson, 1970, p. 419].

Johnson believes that there is nothing visionary or fanciful in these proposals because economists and geographers have the knowledge and tools to indicate appropriate policy guidelines. The real problem lies in the inability of archaic political systems to deal with contemporary socioeconomic difficulties.

Friedmann, whose influence in the planning community is considerable, has similarly argued that the development of a country is equivalent to the full realization of the creative energies of its people, and he proposes the adaptation of elements of urban places to rural areas, in the form of "agropolitan districts." Although they "may have both a town center and a dispersed village population, the key to sucessful agropolitan development is the treatment of each district as a <u>single</u>, <u>integrated unit</u>. Correlative with the idea of agropolitan development is the requirement that each unit have sufficient automony and economic resources to plan and carry out its own development [Friedmann and Douglass, 1975, p. 42]."

The richness of Friedmann's case cannot be given its proper due here, but issue may be taken with his forthright rejection of "the massive financial and technical assistance to developing countries that has been promoted as a keystone of Western liberal thought since the end of World War II [Friedmann and Sullivan, 1975, p. 496]" and his related espousal of autonomous development strategies. More specifically, Friedmann believes that Western-inspired urban-industrial growth strategies have resulted in the following "set of related and potentially explosive problems": (1) hyper-urbanization; (2) increasing rural densities; (3) a spatial structure of dominant core and dependent periphery; (4) widespread urban un- and under-employment; (5) increasing income inequalities; (6) persistent and growing food shortages; and (7) deteriorating material conditions in the countryside (Friedmann and Douglass, 1975, pp. 48-49).

Each of these propositions may be questioned. (1) The meaning of the term "hyper-urbanization" is unclear. How can it be established that a city or group of cities is too big in either an absolute or a relative sense? As discussed earlier there is evidence that moving to cities has on balance benefited most migrants. Moreover, this process has not denuded rural areas, as Friedmann's second complaint in fact indicates.

(2) If increasing rural densities and simultaneous urban growth are both problems, one cannot be solved without aggravating the other. The real problem seems to be that aggregate birthrates are too high in relation to economic growth. The West has provided medical innovations that have dramatically lowered deathrates. But it also has made contraceptive means available to developing countries and urged their use. The population problem is primarily related to social factors within developing countries rather than to alien urban-industrial models.

(3) Friedmann's insightful analyses of dominant core-dependent periphery relations are well known and the phenomenon is no doubt related to dependency structures within

developing countries and between them and developed countries. However, evidence cited earlier suggests that so long as overall growth can be sustained, eventually there is likely to be a convergence of levels of regional per capita income. Of course, even if the dualism problem is temporary, the transitional time period may still be several decades; it is difficult to counsel patience under these circumstances. On the other hand, autarchic development solutions to rural development problems, even if successful, could well require at least as much time.

(4) The problem of widespread urban un- and underemployment was implicitly dealt with under (1) above. Without denying the real difficulties of people living in the cities, the difficulties they would experience in the countryside are likely to be even greater. It may also be noted that if human resource development programs in rural areas are expanded in advance of employment opportunities, migration to cities may well increase.

(5) The possibly temporary nature of increasing income inequalities was discussed under (3) above.

(6) Persistent and growing food shortages are in many respects the fault of the developing countries themselves. The means exist for greatly increasing agricultural productivity but they have been neglected. In the past urban-industrial models may have diverted attention from agriculture but more recently there has been no lack of voices in the West pointing out the consequent lost opportunities. One danger is that the problems of distributing food may be neglected in the effort to increase yields. What appears called for is not an either-or choice between agricultural and urban-industrial modes of development but rather a judicious blending of the two.

(7) The problem of deterioration of material conditions in the countryside may be subsumed under problems already discussed, e.g. rapid population increase, dualism, and the neglect of agriculture.

The points just discussed are intended to highlight issues rather than to refute Friedmann's propositions. However, it must be emphasized that in the present international context, many of the indicated "solutions" to the developing countries' problems--and particularly those that depend on the income divergence-convergence syndrome--are posited on sustained and fairly rapid growth in the developed countries, as was the case in the 1960's. Moreover, Friedmann acknowledges that the "contradictions" of the system "were perhaps not critical for the maintenance of political stability. At any rate, part of the generated surplus (or aid from outside sources) could always be used to ameliorate the worst conditions and so avoid more fundamental, structural changes in economic organization [Friedmann and Douglass, 1975, p. 49]."

Today, according to Friedmann, the situation is fundamentally different. He believes that world capitalism is in the midst of a major transition and that the era of economic euphoria is permanently over. The negative consequences for the peripheral developing countries are seen in rising import prices, declining export markets and deteriorating terms of trade. "We can look forward to a period when starvation will become general and endemic; when subsistence and below-subsistence survival in the countryside will no longer be overshadowed by relatively better conditions in the city; when even there, in the metropolis, the economic environment starts to deteriorate [Friedmann and Douglass, 1975, pp. 35-36]."

There are two major difficulties with this analysis. First, it neglects the fact of international business cycles. In other words, it assumes that the recent downturn will result in permanent stagnation rather than eventual adaptation leading to a period of recovery. Friedmann may be correct, but prophets of the doom of the West have a long and undistinguished record as predictors of the future.

Second, the political structures of developing countries are extremely inimical to the kind of autarchic rural development implied in an agropolitan or similar development strategy. In proposing such a strategy it is not sufficient to extend the analysis beyond conventional economic factors into the realm of human development. The link needed to complete the analysis is a related theory of political revolution, the kind of revolution that does not merely re-shuffle who is doing the exploiting and who is being exploited.

Meanwhile, some things can and should be done to improve welfare through a better organization of human settlement systems. These would include: (1) more attention to human resource development, (2) greater efforts to curb population growth, (3) wider and more rapid diffusion of agricultural innovations, (4) planning in terms of functional economic areas, and (5) the linking of functional economic areas by a transportation and communications policy that encourages not only more general spatial diffusion of innovations but also facilitates the movement of agricultural and light industry outputs from rural areas to large urban markets.

Economic dualism, despite all its faults, should also be tolerated insofar as it keeps gross national product growing more rapidly than would be the case under alternative strategies. As long as the divergence-convergence syndrome can be expected to operate with respect to per capita regional incomes, there would seem to be little point in slowing aggregate growth, i.e. in making everyone more equal by giving everyone less. However, if evolutionary processes do not significantly improve the material conditions of poor people and create more <u>human</u> settlement systems, the revolutionary "solutions"--with or without a fine theory--will become increasingly likely.

References

Berry, B.J.L. "Spatial Organization and Levels of Welfare," Paper presented to the First Economic Development Administration Research Program Conference, Washington, D.C., 1967.

Berry, B.J.L., The Human Consequences of Urbanisation. London, Macmillan, 1973.

Corragio, J.L. "Polarization, Development, and Integration," in Regional Development and Planning, edited by A.R. Kuklinski. Leyden, The Netherlands, Sijthoff, 1975, 353-374.

Fox, K.A. "Metamorphosis in America: A New Synthesis of Rural and Urban Society," in Change in the Small Community, edited by W. Gore and L. Hodapp. New York, Friendship Press, 1967.

Friedmann, J. and M. Douglass, Agropolitan Development: Towards a New Strategy for Regional Planning in Asia, Paper presented at the Symposium on Industrialization Strategies and the Growth Pole Approach to Regional Planning and Development, United Nations Centre for Regional Development, Nagoya, Japan, November 4-13, 1975.

Friedmann, J. and F. Sullivan, "The Absorption of Labor in the Urban Economy: The Case of Developing Countries," in Regional Policy: Readings in Theory and Applications, edited by J. Friedmann and W. Alonso. Cambridge, The MIT Press, 1975.

Gould, P.R. "Tanzania 1920-63: The Spatial Impress of the Modernization Process," World Politics, 22 (1970), 149-170.

Hansen, N.M. "An Evaluation of Growth Center Theory and Practice," Environment and Planning, 7 (1975), 821-832.

Hansen, N.M., Improving Access to Economic Opportunity: A Study of Nonmetropolitan Labor Markets in an Urban Society. Cambridge, Ballinger, 1976.

Johnson, E.A.J., The Organization of Space in Developing Countries. Cambridge, Harvard University Press, 1970.

Lasuén, J.R. "Urbanisation and Development: the Temporal Interaction between Geographical and Sectoral Clusters," Urban Studies, 10 (1973), 163-188.

Lefeber, L. "National Planning and Decentralization," in Regional Development and Planning: International Perspectives, edited by A.R. Kuklinski. Leyden, The Netherlands, Sijthoff, 1975.

Mera, K. Changing Patterns of Population Distribution in Japan and Their Implications for Developing Countries, Paper presented at the Symposium on Industrialization Strategies and the Growth Pole Approach to Regional Planning and Development, United Nations Centre for Regional Development, Nagoya, Japan, November 4-13, 1975.

Nelson, J. "The Urban Poor: Disruption or Political Integration in Third World Cities?," World Politics, 22 (1970), 393-414.

Power, J. "A Losing Hand for Third World?," International Herald-Tribune, December 12, 1975, p. 12.

Pred, A. "The Interurban Transmission of Growth in Advanced Economies: Empirical Findings versus Regional Planning Assumptions," Paper presented at the International Institute for Applied Systems Analysis, Laxenburg, Austria, January, 1976.

Thompson, W.R. "The Economic Base of Urban Problems," in Contemporary Economic Issues, edited by N.W. Chamberlain. Homewood, Illinois, Richard D. Irwin, 1969.

United Nations Centre for Regional Development, Urban Development Strategies in the Context of Regional Development. Nagoya, Japan, UNCRD, 1974.

von Böventer, E. "City Size Systems: Theoretical Issues, Empirical Regularities and Planning Guides," Urban Studies, 10 (1973), 145-162.

Williamson, J.G. "Regional Inequality and the Process of National Development: A Description of the Patterns," Economic Development and Cultural Change, 13, Part 2 (1965), 3-45.