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AN APPROACH TO URBAN ECONOMICS AND LAND USE IN AFRICA  
with special reference to E.Africa.

Note: Economic Development Research Papers are written as a basis for discussion in the Makerere Research Seminar. They are not publications and are subject to revision.

Introduction: the Agenda of Enquiry and the Selection of Projects

This paper is the third and last of a trio of EDRP papers given by the author during the first half of this year and dealing in general terms with questions falling within the field indicated by the title to the present offering. The two previous papers have dealt respectively with an approach to urban economics in the framework of industrial location and interregional growth with special reference to E.Africa, and an approach to urban geography in the framework of growth poles and overall patterns of spatial organisation in the context of Africa. The first of these presented the background to what are intended to be a series of field investigations in East Africa, orientated to problems of the integration of economic and physical planning; the second the background to what is to be a survey of urban land policies in Africa, orientated to problems of the continuing expansion of cities and towns and their need for positive guidance and control. The present paper offers some thoughts on the wider horizon of enquiry into urban economics and land use in Africa, particularly E.Africa, inspired by working at certain aspects of the field, together with some further elaboration of the interrelations between the different aspects with which the author is primarily concerned.

The academic and applied research so far devoted to aspects of urban economics in developed countries is still heavily weighted in favour of the more micro-analytic kind of investigation. Probably the most extensive body of writing that exists within the field is that concerned with urban 'land economics', treating the distribution of activities amongst parcels of urban land in a situation of competition governed by alternative versions of a system of land rents. Moving up one step to the level of a single urban area reviewed as a whole, there is next a quite substantial body of literature concerning the urban 'economic base' and related concepts, treating the factors and variables which determine the composition of output and employment, income level, stability and growth rate of a given place. Moving up to the macro-analytic level of income and growth generation and distribution in a system of cities, there are many fewer works to be found, and even fewer treating of the historical evolution of such a system. And at the highest level of generalisation, almost nothing beyond the most elemental statistical correlations has so far been hazarded about the overall level and rate of growth of urbanisation and that of aggregate economic growth and structural change.

This apportioning of effort is not unaturally reflected in the degree of sophistication reached in practical planning. By now there is in existence a well-formed and widely incorporated system of urban land-use planning being presently elaborated further with the aid of the analysis of urban activity systems, transportation studies, and the other paraphernalia of the modern city planner. Beyond this, more and more land-use planning is coming to rest on a basis of demographic and economic calculation for the city or town concerned, while investments in urban infrastructure are calculated with the aid of cost-benefit and other techniques. Beyond this however, the inter- and intra-regional disposition of urban centres is handicapped by the failure to make contact between an 'expanded' version of town planning and a 'broken-down' version of national economic programming. And beyond this again, the balancing of

overall urban growth with other elements in the national strategy for economic development has yet to be seriously approached in practise.

This weighting of research and planning experience appears to the author to be oddly at variance with the needs of most developing countries. Here, urban economics, like any other kind, has primarily to be focused upon the questions of growth and structural change over the long run. Applied urban economics has to be concerned with the problems associated with the effort to manage a high rate of output and income growth with a severely limited supply of capital, financial, management and labour skills. Given this situation, it seems more logical to focus investigations from 'top to bottom', deriving major research and planning priorities from an appreciation of the overall situation. For in the end the object of the exercise is to try and understand what size, structure and distribution of urban activities and populations will contribute most either to the maximisation of income and wealth using the minimum of scarce resources, or the rapid expansion in the quantity and quality of the scarce resources themselves. With this in mind, the field of urban economics in Africa can be identified and subdivided into four major parts, each of which will have some relation to the others, but which can be taken in a succession of gradually decreasing generality. The four subdivisions are,

- 1) the economics of urbanisation
- 2) the economics of urban concentration
- 3) the economics of urban growth
- 4) the economics of urban form

#### 1. The Economics of Urbanisation.

The growth of an urban population in a developing country must be basically indicative of positive changes in economic structure, in the sense that agricultural productivity has been raised to provide directly or indirectly for the sustenance of a non-agrarian populace, and at least a proportion of production is now exchanged for goods or money. Further, within growing urban areas will be found economic activities more specialised and productive than those found outside, in particular manufacturing. In addition, the urban 'environment' is more likely to provide the conditions spreading the advance of contractual relationships and other broadly sociocultural alterations that in turn will lead to a greater accumulation of capital, labour-force commitment, and degree of entrepreneurial initiative in the face of wider possibilities. The ensuing expansion of a wide variety of products and services will have a reciprocal 'spillover' impact upon the surrounding rural economy, resulting in the continuance of a spiral of growth in which urbanisation and national income increase side by side.

Insofar as development involves a movement away from a low-productivity, unspecialised quasi-subsistence economy to a high-productivity, highly specialised and commercial economy, the above relation is almost a tautology given present technological constraints. However, in Africa, and particularly in areas like E.Africa, there arises another dimension of urbanisation which somewhat complicates the picture with serious consequences. In the context of a dual economy and an increasingly mobile society, a given level and rate of growth of urban population may neither reflect the growth of more productive activities or an increasing two-way exchange between urban areas and the country at large. The dominant role of non-indigenous communities heavily localised in urban areas means that the patterns of income and expenditure and investment associated with such areas may fail to induce a positive response in the rural economy, the bulk of activities being orientated to external demands and supplies. Further, a high rate of total population growth, an increasing degree of education and exposure to the mass media, and a failure of development plans to realise rapid expansion in the productive sectors, may result in the accumulation of urban masses contributing little to total production due to a high rate of un- and under-employment, and benefiting little from the urban environment to which they have little or no access. When these

situations are taken into account, a number of research topics at this first level suggest themselves, viz:

- a. the gross pattern of urban income distribution as compared with the national picture and the main sources of divergence;
- b. the major expenditure patterns of those resident in urban areas and their impact upon rural activities and outputs;
- c. the share of urban based consumers and firms in generating the national pattern of employment and wage rates;
- d. the share of urban consumers and firms in generating imports;
- e. the share of urban areas in the investment total and their impact upon the balance between 'overhead' and 'directly productive' investment;
- f. the emergence of institutional forms and entrepreneurial initiative amongst the indigeneous populations of urban areas;
- g. the size and direction of change of urban unemployment.

## 2. The Economics of Urban Concentration.

Some if not all the results that might be reached in investigations such as those listed above will be affected by varying degrees of urban concentration. A fairly high degree of concentration - the emergence of at most a few large cities and towns - is associated with early stages of development due to the fact that many kinds of non-agricultural production will be concentrated in one or a few units of output whose minimum efficient size will be large in relation to the market capacity of the total economy. Though founded upon certain initial advantages of location in areas of substantial natural resource endowment and dense population, the major urban centres, especially in Africa have emerged to 'primate' status on the basis of other 'acquired' advantages. Of these, the most significant have been the accumulation of urban infrastructure and related facilities for large-scale operation, the growth of a range of ancillary services making for potential 'external economies' in manufacturing, and the centralisation of political and administrative functions. Taken together these factors are conducive to a continued pull on urban-orientated types of activity whose accretion serves to consolidate the differentials in quantity and quality of production factors between the major centres and other smaller urban areas.

Insofar as development entails the cumulative expansion of a related group of mutually reinforcing specialised and interrelated set of productive activities, the emergence of a pattern of urban concentration may be taken to be the geographical equivalent of such a process. Nevertheless, in some parts of Africa, though not as yet perhaps in E.Africa, the disparity between the primate city and the rest has given rise to a parent disjunction between the former and the country at large which in turn inspires another view of the matter. A situation where 'million cities' dominate a territory with a total population not exceeding ten millions may well have both exhausted the more significant scale economies of urban size while at the same time producing a marked 'backwash' effect upon urban growth elsewhere which might otherwise help to diffuse the 'spread' effects of urbanisation as a whole. What evidence is available suggests that modern technology in manufacturing and public utilities can be operated in a medium-sized urban agglomeration, and that the rise of a class of 'displaced persons' existing on the fringes of urbanism, is most marked in a situation where the lack of 'intervening opportunities' results in large-scale immigration to a central city. Given such possibilities, the following topics of enquiry are suggested at this second level, viz:

- a. the gross pattern of urban size distribution in comparison with degree of urbanisation and total population;
- b. the differential distribution of significant classes of economic activity, especially manufacturing, throughout the urban system;
- c. cost differences in infrastructural provision within the system;
- d. relations between the pattern of regional economic development and the pattern of urban centre growth and function;
- e. discrepancies between possible economic duplication of activities and facilities and their degree of concentration in actuality;
- f. patterns of selective migration, job opportunities and employment ratios.

### 3. The Economics of Urban Growth.

Once again, the pattern of urban concentration is in turn largely induced by the rate at which given urban areas grow. In most cases this growth follows a path through successive levels of accretion and diversification while at the same time dependency on external areas is gradually extended but limited. Initially, most urban centres serve as local market and trade centres with a specialised commercial function dependent on their more or less immediate surroundings, plus some low-level administrative and service provision. Their selective emergence is usually dependent upon the location of some specialised activity serving a much wider market and the build-up around this of a core of urban facilities, and factors of production orientated to the particular 'export-base' character. Further advancement arises from the diversification of exporting activity but also from the progressive internalisation of 'import-substitute' lines of production as the size and strength of the urban economy becomes such as to accommodate them. Further to this, the degree of specialisation in service provision becomes such as to lead to a position of high-order provision for a substantial tributary area, within which a 'home market' is created which further consolidates the internally integrated nature of economic activity within the emergent metropolis.

The growth of cities and towns in Africa, particularly in E. Africa for example, has been affected by the impact of the colonial economy from which they first arose. This has meant in particular the dependence on stimuli heavily concentrated in the external rather than the local environment, the dominant role of commerce and administration up until a rather late stage in growth, and the contemporary phase of successive accretion of large-scale production units which have to be accommodated within a very limited developments of 'social overhead' capital assets. Growth is characterised by a series of 'steps' each of which, once ascended, makes the continuance of growth more secure; and by a variety of facilitating factors, each of which may be sufficient at this point in time to enable continued progress towards a ramified urban economic base. Given this 'middle stage' position in the growth sequence, the following series of investigations into the process seem to be apposite, viz:

- a. the range of initial functional specialisations represented in the urban areas of the colonial economy;
- b. repeated sequences of expansion in the urban economic base;
- c. the impact of 'threshold' size on the addition of elements of production and infrastructure into the urban economy and the time-lag before their accommodation;
- d. the range of dependency for categories of productive investment, especially in industry, upon interrelated investment decisions or an already operational matrix of activities;
- e. the role of local private enterprise, capital, labour pool, or government initiative in inducing or facilitating urban growth;
- f. the changing role of external, hinterland, and domestic elements in the continuing expansion of major sectors of the urban economy.

### 4. The Economics of Urban Form.

Just as overall urbanisation and its relation to overall development can be much influenced by the pattern of urban concentration, so the rate and character of urban growth is not unaffected by the question of the internal disposition of activities and settlement within and surrounding the individual urban area. For urban growth must involve either an increase in the intensity of land-use or an extension of the urban area, and in most cases both together, through a recognisable sequence of alteration which underlies some of the major discontinuities or 'steps' in the growth process. A small town is focussed upon a central commercial area with an administrative adjunct, connected to surrounding residential areas by a network of all-purpose roads which also serve to convey external traffic. Some measure of utility services and public facilities are provided on a centralised basis and the total of movements, people, commodities and other selected elements such as electric power, water and sewerage, remains fairly simple. As both population and economic activity increases in size and complexity however,

there is a corresponding rise in the complexity of urban land-uses, urban transportation, urban infrastructure provision, and the administrative and managerial functions needed to control urban expansion. The 'central area' becomes a highly sophisticated mixture of increasingly specialised offices, shops and related establishments; new commercial sub-centres are required to serve the new and extended pattern of residential areas; the changing workpattern as industrial activities are added brings a new dimension to both movement and the provision of servicing; and as growth continues from time to time decisions have to be made as to the alternatives of further centre expansion or the arrangement of satellite new towns or estates with the additional complexity of their functional connections with the main urban area.

In areas such as E.Africa, there are other dimensions of the problem to be taken into account. Most importantly, there has grown up a segregated pattern of units of occupation and economic activity with quite differing characteristic land-use patterns and activity dispositions as between the main racial groups, producing an overlapping of functional categories that has meant substantial duplication and a very wide range of nonconforming urban standards. Secondly, partly as a result, there has been a development of 'peri-urban' areas differing substantially in land-use arrangements from the urban area proper, yet an intrinsic part of the growth of that area. Thirdly, there is a paucity of investment funds which has meant the skeletal provision of basic utilities to a large part of the urban population, and a parallel lack of other facilities associated with an enlarging city area, such as journey-to-work provisions. With this situation very much in mind, the following topics are proposed as primary research areas, viz:

- a. the changing relationships of central, residential, industrial and 'fringe' areas with the expansion in urban population and activity;
- b. the costs of provision of alternative standards of infrastructure to service varying arrangements of urban land-uses;
- c. the development of demands for various kinds of structures, e.g. housing types, and movement provisions with urban expansion;
- d. the economic and social costs of differing densities of land development and imposition of performance standards;
- e. the alternative solutions to urban expansion provided by addition to existing 'built-up areas' and the establishment of satellites;
- f. the effect of land-holding arrangements, development practices and planning arrangements on urban land-use arrangements;
- g. the effects of scarce skilled managerial and administrative resources on the efficiency of urban planning
- h. the differential effects of alternative planning solutions on the incorporation of migrants into the urban environment.

Conclusion: the Identification of Related Discontinuities as Problem Sets.

The selection of areas of enquiry within the four subdivisions of urban economics outlined above are of course not intended to be exhaustive, but are based upon a criterion of appropriateness for immediate review. This criterion is the bearing of the issues presented upon the points in the development of urban areas where further progress is made by the execution of a jump or 'step', involving a quantitative and/or qualitative change of significant proportions. For it is at these points that decisions have to be made, often in the face of alternatives whose costs and benefits are only imperfectly understood if at all, but which may involve the disposition of very large sums of money and have effects of substantial ramification.

The research proposed by the present author is a reaction to this decision factor. The choice of subjects 2.a-d for investigation in E.Africa, and the agreement to subject 4.f for survey throughout Africa, represent as much as possible decision-orientated investigations into areas where as yet little can be said for certain about the interaction, let alone the magnitude of effect produced, by the variables involved. It will be quite sufficient if the present paper, by placing these in some sort of perspective, opens up the field, and the projects, to scrutiny and discussion on the basis of the logic which I have tried to demonstrate herein.

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