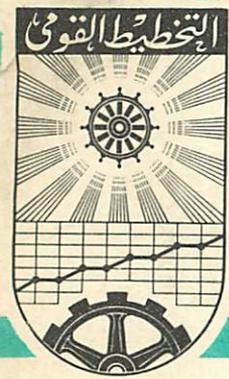


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INTRODUCTORY REMARKS ON  
REGIONAL PLANNING

by

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## Introductory Remarks on Regional Planning.

by

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A summary of four lectures on regional planning  
given for a training course for planning employees of the Governorate of Cairo. September 63.

In regional planning, we mean by a region a certain part of a country's national territory. Putting it a bit more precisely, a region may be defined as a geographically identified area with economic and social characteristics which differ from those of other areas. In other words, regions may be distinguished according to the main economic activity or activities of the area; thus, we may speak of an agricultural region or an industrial region, a mining region or a region in which certain other activities dominate (e.g. the Suez Canal area). More in detail, it will often be desirable to distinguish also between agricultural areas with different main crops, or with different social structures (many independent farmers with small holdings, or large estates with hired labour), or with different climatic or soil conditions, or with different manpower situation (large unemployment and disguised unemployment, or labour shortages), with different degree of urbanization (urban or rural population), and so on.

When we make a first subdivision of the country into a number of regions, it is obvious that we cannot take into account all local differences but only the main features of a limited number of areas. For planning purposes, it is essential that there should be one authority in charge of the development of the region, i.e. the region should not only be a socio-economic unit, but also an administrative unit. In the case of the U.A.R., with about twenty governorates, the easiest thing would be to try to organise regional planning on the basis of these Governorates. However, it may well be that the Governorate boundaries do not coincide with those of the socio-economic units; ideally it would be good if the Governorate boundaries could be adapted to the economic or social "boundaries" but this may well prove to be impossible in practice. Governorates with similar economic structure could be treated as one unit; they might form a common regional planning authority working for the combined Governorates.

Why is regional planning necessary? Let us first say what we mean by the word planning. Planning is the deliberate and coordinated action from the side of the government aiming at the realization of certain objectives or targets; these targets are set, on behalf and at the benefit of the people of the country, by parliament or directly by the executive government. The targets or objectives are formulated with the interests of the country as a whole at heart; thus also the main aims for regional planning have to be fixed from the point of view of the national (not the regional) interest. This will be explained below in more detail.

In order to see why regional planning is necessary, let us describe briefly some undesirable features of unplanned (laissez-faire) regional development. First, existing differences in the level of regional development (as expressed, for instance, in the regional income per capita) tend to perpetuate themselves, and are even enlarged very often in the course of time. Differences in regional per capita income levels may be very pronounced. A study made by the present author revealed in the case of the South-American country Ecuador the following variations in regional per capita income (the national average = 100) (1)

Three coastal regions	:	96, 144, 154
Five mountain regions	:	53, 58, 67, 87, 112
National average	:	100

The poorest region had a per capita income (53) of about one-third of that of the most developed region (154). It has been observed that the disparities between regions are greater in less-developed than in developed countries. For Europe it was found that the percentage of the population living in regions with only two-thirds of the national per capita income level or less is much lower in the higher developed countries (United Kingdom and Switzerland : a few percent ; France and Norway: not more than 10 percent) than in the less-developed European countries (Italy, Spain, Turkey : one-third of the population) (2).

The fact that existing differences between regions will often be enlarged automatically (if no counteraction is taken) has been stressed by Professor G. Myrdal (3). The force of what he has called the "backwash" effects of the further growth of the already developed regions will hamper the growth of the lagging-behind regions. Among the factors that play a role in the backwash effects are:

- (i) Migration. Young and active people will move from the poorer region to the more developed ones, thus leaving back the less-developed region with the less dynamic and older part of the population. Those that are migrating will also be the ones with more education.
- ii) Savings flow to the more prosperous region. To the extent that business or private savings are possible, they will be invested in the more developed region where expansion and profit opportunities are greatest.
- iii) enterprises (whether industrial or commercial) located in the economically stronger region will conquer gradually the markets of local enterprises in the poorer region.
- iv) public funds available through taxation are much larger in the developed region than in the less-developed region. Consequently, all basic facilities like roads, water and energy supply, etc. can be much better developed in the richer region, thus inducing further economic growth.

- (1) H. Linnemann, The economic regions of Ecuador: their integration and development. Quito, 1960.
- (2) Economic Commission for Europe, Economic Survey of Europe 1954, Geneva, 1955.
- (3) G. Myrdal, Economic Theory and Underdeveloped Regions. London, 1957.

The tendency of increasing differences in regional income levels is in direct conflict with one of the most important aims of economic policy of virtually all governments in today's world, namely with the aim of reducing the inequalities in income distribution. Great differences in regional income per capita imply in fact great differences in the income of individuals. This is therefore the first reason why regional planning is necessary.

A second argument for regional planning is that the location decisions taken by individual enterprises are based on private or at least "individualistic" calculations of costs and returns, and not on the basis of social costs and social returns. Social costs and returns take into account the external effects of an enterprise; they reflect not only the gains and losses involved for the enterprise itself, but also the advantages and disadvantages for the nation or the society as a whole. An example may illustrate this point. Suppose that a large new enterprise (say, a bicycle factory) decides on the basis of its cost calculations to build its plant in or near Cairo. In its "individualistic" calculations it has not taken into account that by choosing this location it contributes, in a negative way, to the already existing problem of traffic congestion during peak hours in Cairo, thus forcing the Governorate to increase its expenditure on traffic improvements like larger roads, new bridges, more street lights and more traffic police. Similarly, the enterprise has assumed that the flow of labourers from the rural areas to the city will continue so that there is no difficulty for the enterprise in hiring its labour force; however, in its decision the enterprise has not taken into account that the Governorate of Cairo has to build, sooner or later, new houses for these labourers. In general, all drawbacks (also in the social field) of the continued expansion of the large agglomeration of Cairo-Heliopolis-Giseh - etc. will be disregarded in an enterprise's individualistic decision. The neglect of these external effect (in our example negative external effect; there may be positive effects in other circumstances) by the individual enterprise makes regional planning imperative.

Once the need for regional planning has been recognised the question arises what the more specific aims, techniques, and organisation of regional planning should be. Starting with the first point, it is obvious that the aims of regional planning should be subordinated to and derived from the national aims. The national planning authority, e.g. the Ministry of Planning, is therefore necessarily involved in regional planning as well. The difficult question is: what should be decided upon by the Ministry of planning, and what should be left to the decision of local government, e.g. to the Governorates? The general answer seems to be: the main lines of regional planning should be determined by the central planning authority (after consultation of the regions, however), and detailed decision (say about individual investment projects) should be left to the regional authorities insofar as these decisions have no "external effects" outside the region. These points will presently be elaborated upon, but let us mention here already an example of detailed decisions that can be left to local authorities, by way of illustration. Decentralised decisions may be made, for instance, on the organization of purely local transportation, on the number of retail trade establishments, on the establishment of small "industries" like bakeries, repair shops, and similar local service industries. In these branches, decentralized decisions will usually be better than centralised ones.

In order to see clearly how regional planning is related to national planning, let us summarise in a few lines the planning process for the national plan. Ideally, the national planning process starts with the formulation of the main aims or targets of development. The most commonly found aims include (i) a high rate of growth of income, (ii) full employment, (iii) a more equitable income distribution. This list of general aims may include an explicitly specified target in the field of regional development, e.g. that at the end of the five-year or ten-year plan no region should have a level of income per head more than twenty percent below the national average. It is the task of the central planning authority to formulate, on the basis of the recognized targets on the one hand and the maximum amount of information about the economy on the other hand, the outlines of a national development plan. This national plan will have to specify, among other things, the general rate of development of income and income per capita, and the rates of development of the different sectors of the economy. Once these growth rates have been determined, the next step is to choose the individual projects which will be executed in the various sector programmes. Before this can be done, however, regional planning comes into the picture.

Just as in the case of national planning, regional planning will have to answer first of all the question what the planned rate of growth will be, for each region individually. This fundamental decision depends on (a) the planned rate of growth of the national economy (e.g. in the case of the U.A.R. this is 7.2 per cent per year, leading to a doubling of national income in ten years); (b) the target for "regional equality" if such a target has been specified by the government; (c) the presently existing differences in regional per capita incomes; (d) possible differences between regions in growth rates of population \* and (e) differences in "development potential" between the regions. This last point may require some further explanation. It is by no means certain that all regions are equally endowed with natural resources, equally well-located from the point of view of transportation, and so on. It is probable that certain regions are much easier to develop than others. If we would be interested only in obtaining the highest possible rate of national economic development, it would be advantageous to concentrate the development efforts on the most favourable regions, i.e. on those regions that could be developed relatively easily. But when a certain balance between the income levels of the regions is aimed at, it will be necessary to develop the less-favourable regions, even if this implies a greater development effort and consequently a somewhat lower rate of growth of the national economy as a whole. For the sake of regionally balanced development it will often be necessary to sacrifice some (little) part of the national economic growth that might otherwise have been achieved. It is essentially a political decision, how much national economic growth should be sacrificed in favour of a greater equality of regional income per capita levels. No general rules can be given here to determine what the social optimum solution is, but we should be aware of the fact that there is this possibility of a conflict between the two aims of maximum national economic growth on the one hand, and a regionally balanced growth on the other. It is obvious, therefore, that the decision concerning the planned regional growth rates has to be taken by the central authorities, and not by the regions themselves.

\* (this should take into account also the desired inter-regional migration);

Some economists would argue, at this point, that there are in reality almost no location-free projects; for almost any type of activity it would make a difference whether it is located in the Delta, near Cairo or Alexandria, or far south in Upper Egypt. Strictly speaking, this is true; but then "location-free" has to be understood as "without great differences in production costs as compared between the regions". We may even go one step further, and admit that there are differences in production costs (comparing different locations) which cannot be neglected. We can use now the approach recommended by Professor J. Tinbergen in this respect (1). This author suggests that we rank the (more or less) location-free projects in order of decreasing preference, mentioning at the same time the region in which they could be located. A technically identical project may now appear twice or three times, depending on cost differences between locations in different regions. A simplified case may be as follows:

<u>Project</u>	<u>Region of Location</u>
A	2,4
B	1,4
A <sup>o</sup>	1
C	1,2,4
B <sup>o</sup>	2,3
D	1,4
A <sup>oo</sup>	3
E	1,2,3,4
D <sup>o</sup>	2,3

The projects A, A<sup>o</sup> and A<sup>oo</sup> are technically identical; only because of different locations the (socio-economic) profitability is different. The same is true for B and B<sup>o</sup>, D and D<sup>o</sup>, etc. Project E is apparently a truly location-free project. In reality, this list of projects is much longer, and the number of regions larger.

Suppose now that region 3 is the most backward area of the country, and that it is the aim of the Government to bring region 3 to the level of development of the other regions (or at least to diminish the differences in the regional development levels). We will have to give some preference, therefore, to projects located in region 3. The first project, in order of priority, located in region 3 is project B<sup>o</sup>; our objective of balanced regional development will induce us to choose B<sup>o</sup>, and not B which is higher on the list but not located in region 3. Similarly, we will choose A<sup>oo</sup> in spite of the fact that the locations corresponding with A and A<sup>o</sup> would have led to a greater contribution to national income. When we choose B<sup>o</sup> and A<sup>oo</sup>, the projects B, and A and A<sup>o</sup> have to be dropped from the list, obviously. It is clear that we have to make a sacrifice (in terms of national income, or other targets

(1) For those familiar with Professor Tinbergen's writing on this subject it will be obvious that the whole setup outlined in these lectures owes very much to his ideas and line of thought. See, e.g., his lecture on Regional Planning given at the Institute of National Planning, Cairo, in September 1963 (forthcoming).

of development) for the sake of a more balanced growth of the regions. It is a matter of development policy how much we want to sacrifice for the benefit of greater regional equality; this can only be decided by the Government taking into account the wishes of the population. Partly this sacrifice may be a temporary one; once the backward region has been put "on its feet", a part of the disadvantages of the location in that region will disappear. However, another part of the sacrifice may be of a permanent character; for instance, as the majority of the population of the U.A.R. will always be living in lower Egypt, transport costs to and from factories in Upper Egypt will continue to play a part when national activities are located in the southern part of the country. But then, in economic development nothing can be achieved without making a sacrifice in one way or another.

Before finishing the discussion of the relation between national and regional planning at the project level, two additional remarks must be made. Firstly, it is evident from the above example that the list of projects should include a (preferably large) number of projects that could be located in the backward region or regions; also, the smaller the differences in profitability between the regions, the better it is. For these reasons it is highly desirable that a complete Survey of the resources and development possibilities of each region, but particularly of the less developed regions, be made. This type of general reconnaissance and other pre-investment work should make it somewhat easier to develop the backward areas of a country without a great sacrifice in overall efficiency of the production. A second remark is, that in the present context we mean by a project or activity an individual technical unit of production plus those auxiliary activities that have necessarily to be located in the immediate neighbourhood of the leading unit. Thus, in the most complicated case (e.g. in certain branches of the chemical industry), our concept of a project or activity would refer to an industrial complex rather than to an individual factory; it all depends on the question how closely the various technical production units are related.

We have now finished the discussion of the first stage of regional planning. In this first stage, the rate of growth of the various regions has been determined as well as which national activities will be located in the different regions. We turn now to the problems of planning inside the region itself. This is the second stage of regional planning, in which we have to decide where the projects allocated to the region concerned should be established; it is the location inside the region that has to be studied now. The main question that has to be answered is whether the projects to be started in the region should be dispersed as much as possible over the whole area of the region, or instead concentrated in one or a few centres in the region. As far as the location-fixed activities are concerned, there is no choice because their location is determined by technical considerations. The location-free activities may be started anywhere, however, and for reasons of equality between the various parts of a region it would seem as if a maximum dispersal of these projects over the whole region would be desirable. Experience teaches us, nevertheless, that there is a limit to this squattering all over the region. For a number of reasons it is economically unwise to aim at a maximum dispersal.

of industries. Mainly this is due to the greater efficiency of having common facilities for several industries together (transportation systems, water and energy supply, proximity to residential areas where the labourers live, etc.); in general it may be said that the desirability of clustering together a number of industries is due to what the economists call the "external effects" of certain activities.

It is generally recognised today that the development of a region should focuss on the expansion of a number of local centres. Such a centre might be called a development nucleus or a development kernel; the well-known French economist Fr. Perroux has called these centres "pôles de croissance" (growth centres) and worked out a certain theory concentrating on this phenomenon. In spite of the common opinion that regional development should focuss on these development nuclei, it is an open question how many of these centres there should be in every region. Apparently this depends first of all on the size of the region, but even given a certain size (in terms of area and population) it is hardly possible to give a general answer to the question how many development centres should be created or expanded.

In principle, every region (and the nation as a whole) should aim at the optimum structure of concentrations of economic activity and population, i.e. the optimum or least-cost structure of cities, towns, and villages. It is well-known that the pattern or hierarchy of cities, towns and villages (ranked according to their size) shows a certain regularity if compared between countries or between regions. But it is not at all sure that this is also the best or optimum situation. It is a normal situation that there is one bigger centre in every region; usually this is the region's capital. Suppose that this town already has a certain amount of industry and service activities, and a population of, say, 100.000 inhabitants. In the same region there may be, say, five centres with a population of 20.000 people, 25 small towns with around 5.000 people each, and so on. As was said already before, too great a dispersal of industries is not desirable, so that we may have to choose on which existing centres to concentrate our activities. It is difficult to determine, however, whether or not the capital with 100.000 inhabitants has already reached its optimum size. In this specific example, most people would think that the regional capital could be expanded still further. But concerning the national capital, Cairo with its suburbs, this is not at all certain. Actually, many regional economists and town planners would feel that Cairo has already surpassed its optimal size, and that the socio-economic cost of further expansion will be higher in Cairo than elsewhere. Not only with regard to the capital should the question be asked as to what and how many activities there to locate, but also with respect to the other towns and villages.

Research on these problems is going on in several research institutes, but as yet the answers to the problems are still unknown. This is particularly true with respect to the question how big the various centres should become, i.e. how long the growth of existing centres is allowed to continue, and how the frequency distribution of big centres, smaller centres, towns, big villages, small villages, etc. should be in the ideal case. The related

question, what activities are to be established in the centres of different rank, is somewhat easier to be answered (theoretically speaking, the two questions are closely interrelated, and probably cannot be answered separately). Roughly speaking, we will find in the smallest type of centre only some regional activities, i.e. activities catering for the needs of the local population (and, of course, certain location-fixed activities, mostly agriculture). In the smallest villages, we will find, e.g., a bakery only. In somewhat larger villages, there is a bakery (or even two or three) and a blacksmith, a tailor, a shoemaker etc. In still larger villages or small towns, we find again the same activities, plus a construction or building firm and a dealer or repair shop for electrical appliances and cars. In bigger towns we may find, in addition to these activities, a textile factory, a mill, a cinema, etc. As this level, the national activities (location-free) come in, as in the case of the textile factory for instance. Thus, it is possible to distinguish for each type of town or village the "most advanced" or "biggest" type of enterprise which is characteristic for the centre. This will help us in determining the best location of our location-free activities. As has been remarked before, the regional activities simply follow the location pattern and growth of the national activities, because they serve the needs of the people spending their income earned in the national activities.

The basic factors that underly the location problem inside the region are three in number. The first two factors are the cost of production, and the cost of transportation. If only the production costs would matter, many products could probably best be produced in one big enterprise or at most a few working for the whole area. If only transportation costs would matter, production of each product would be squattered all over the area so as to be as near to the consumer as possible. But because neither of these two cases is realistic, we see that for each type of activity there is an optimum solution somewhere in-between. For bakeries the assumption of dominating transport costs (and little or no economies of large-scale production) is rather realistic; for transistor radios economies of scale are important, and transportation costs very low, relatively. The third basic factor, which makes the pattern of location forces even more complicated, is the existence of external effects, particularly those external effects which favour a certain clustering of industries and population. This means, as we explained above, that activities (of different sectors or branches of production) will tend to group closely together in order to benefit from each other's presence. It is clear that these three factors work at the same time, and that they determine together which hierarchy of cities, towns and villages is the best. Our factual knowledge about the precise impact and importance of these basic factors is still too limited, however, to make any general statement of practical value as to how the regional planner should develop the various types of centres in his region. The possibilities for further scientific research on this point are still vitally unlimited.

In spite of the rather unsatisfactory state of knowledge concerning the second stage of regional planning, a decision must and will be taken in practice. Once the allocation over cities, towns, and villages of the activities

to be performed in the region is given, regional planning enters its third and last phase. The question to be answered in this last stage is where to locate the activity, assigned to a certain centre, within the area of the city, town, or village concerned. This problem is studied in what is called "town and country planning", or city planning", or sometimes "physical planning." Several disciplines have to work together in this field of analysis: not only economists, but also architects, engineers, sociologists, etc. have to contribute to the solution of the problem. In building new centres or expanding existing ones, one of the techniques most commonly applied is zoning. Zoning means that in the physical layout of the centre certain areas are reserved for industrial enterprises, other areas for shopping and commercial activities, still other parts as residential areas or cultural centres, and so on. The relative position or situation of these areas, with respect to each other, requires careful examination, so as to make the centre in its totality not only efficient in a more narrow economic sense but also a socially and culturally viable unit. Obviously the particular problems of Zoning in already existing centres will differ from those in an essentially rural environment. Closely related to the question of creating growth kernels at the countryside is that of community development.

It will be clear that in this third phase of regional planning. we are dealing with matters at a micro level. The role of non-economic factors is so important at this stage, that the present author - being an economist only - feels unqualified to make more specific statements about how to proceed with regional planning at this level(1). A few words may be added, however, concerning a matter about which the economist has to say something concrete, i.e. about zoning for industrial development. Experience of many countries has shown that the development of small and medium-size industry in a certain area may be greatly stimulated by creating so-called industrial parks, or industrial estates. Industrial estates are tracks of land equipped with all basic industrial needs (energy, water, local roads) and often also with standardised factory buildings. They are developed in advance, with the aim of attracting industrialists. Their advantages for the small and medium-sized firm are the readiness of all necessary public utilities, the possibility of renting a factory instead of buying one, and in general all common facilities which can be provided cheaper for an agglomeration of enterprises than for each factory individually. Their clustered location gives them all benefits of what we have mentioned before as external economies, or positive external effects. It is particularly for the latter reason that industrial estates could be a successful device for bringing industry to the smaller towns and villages also in a planned economy. Building factories in advance may not be necessary if all industrial activities are nationalized and run by the Government, because planning in this case is not inductive but directive, and the industrial firms can simply be brought to the estate by the force of law. But the advantages to be gained from the external effects

(1) For a discussion of the various non-economic aspects, see for instance Regional Planning: Housing, Building and Planning review, Nos. 12 and 13, United Nations, New York, 1959 (Sales No. 59 IV 7)

of an industrial agglomeration on an industrial estate are noticeable, both in a centrally-planned and in a mixed type of economy (1). Industrial estates might well come to play an important part in regional planning in the U.A.R.

We have finished now our brief survey of regional planning. The main lines of the setup of regional planning have been indicated, but no problem has been discussed in any depth. Partly this is only natural, because regional planning is still in its infancy, both in the U.A.R. and elsewhere abroad. Nevertheless, more practical experience has been obtained in several countries than could possibly be mentioned here. It may be emphasized, therefore, that much is to be gained from detailed studies of the experience of developed countries - both the centrally - planned and the mixed economies - as well as of less - developed countries(2). Concerning the U.A.R. itself, it seems as if two main problems at this stage have to be faced with respect to regional planning. The first of these is the scantiness of the information required at the regional level. This applies to the usual statistical data necessary in planning, but also to the knowledge concerning development possibilities, resources (in the widest sense of the word); cost differences between regions for the various economic activities, and so on. The second problem is possibly even more fundamental. It concerns the organization of regional planning, and more in particular the appropriate balance between centralization and decentralization. It is one thing to indicate on economic grounds, as we have done above in a tentative way, what decisions should be taken by the central planning authorities and what part of the problem should be left to the regional authorities, but it is quite another thing to introduce such a setup of planning in an existing political structure and to make this a working proposition. The particular conditions prevailing in a country should be taken into account, and one of the conditions may be that, initially at least, there are only very few competent planners at the disposal of the regional authorities. The important thing is, of course, that there has to be a smooth and efficient cooperation between the central and the regional planning authorities. This requires a dedicated civil service which has the national interest at heart, and which takes decisions based on the objective merits and demerits of the project or proposal concerned. I feel confident that in the U.A.R. it will be possible to work out a satisfactory framework for regional planning on this basis.

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- (1) See, for further details, Establishment of industrial estates in under-developed countries, United Nations, New York, 1961
- (2) See, e.g., Regional Economic Planning: Techniques of Analysis, O.E.E.C., Paris, 1961.

