## ARAB REPUBLIC OF EGYPT

# THE INSTITUTE OF NATIONAL PLANNING



Memo No (1070)

Regionalization as a Tool of Economic Policy
Part Two

By

Dr. Siegfried Voigtsberger

Feb. 1975

جمهورية مصر العربية \_ طريق صلاح سالم \_ مدينة نصر \_ القاهرة \_ مكتبب ريد رقم ٥١٧٦٥

A.R.E Salah Salem St. Nasr City, Cairo P.O.Box: 11765

### Contents

|   | Page |
|---|------|
| 4.1 The various time horizons in planning and the main features and functions of the appropriate plans              | 1    |
| 4.2 Importance and contents of long-term plans in territorial planning - criteria to select the tasks for long-term |      |
| planning - criteria to select the tasks for long torm   | 10   |
| 4.2.1. The gestation period between the decision  | 12   |
| and its implementation 4.2.2 The operation period   | 16   |
| 4.3 Time horizon and regionalization  | 22   |
| Appendix: Some factors, influencing the advisability to develop capacity reserves in infrastructural                | 37   |
| net works.  |      |

#### Chapter Four

## The Time Horizon of Planning and its Impact on Regionalization

4.1 The various time-horizons in planning and the main features and functions of the appropriate plans.

Any planning decision has to be made at a certain point of time. This implies, that the social conditions, given at that particular moment, determine or at least influence character and quality of this decision.

Three factors should be mentioned here:

- Planning decisions have to be made proceeding from the prevailing level of economic and social development (production relations, level of productive forces and of social organization of labour).
- 2. Planning decisions have to rely on the given level of scientific knowledge about the further development of society, about the development of the wants and needs of the population, about scientific-technological progress etc.
- 3. Planning decisions have to be made on a certain level of mastering planning and management of the economy itself, i.e. with a given set of more or less sophisticated planning tools and techniques, with a certain institutional set—up and with a given more or less qualified and experienced staff.

Studying the impact of these factors on plans with different time-horizons reveals some of the specific features,

of short, medium and long term planning. 1)

There is first the degree of predetermination of the plans. The correlation between the length of the planning period and the predetermination of the planning decisions is obvious.

The shorter the planning period is, the heavier will be the impact of the economic and social conditions. prevailing during the basic period and of planning decisions made during earlier planning periods. 2)

<sup>2)</sup> To illustrate this impact we take the following, very simplified example:

Suppose the national income during the basic year was 1500 out of which 70% were spend for consumption i.e. 1050 units. Our annual plan aims at a 10 per cent increase of national income. Thus 1650 units will be available for distribution, if it is implemented. To maintain the level of consumption asks for 1050 units plus the increment to provide for the population growth of let's say 2%. This takes another 21 units and leaves now 579 units for further distribution. Suppose now, that the gestation period of investment is four years on average and that during the previous years the following projects were started:

| Year                  | Total value      | Annual investment      |
|-----------------------|------------------|------------------------|
|                       | of the projects  |                        |
| planyear -1           | 280              | 70                     |
| planyear -2           | 340              | 85                     |
| planyear -3           | 400              | 100                    |
| Hence the utilization | of another 255 u | nits of the national = |

<sup>1)</sup> In this context we define

<sup>-</sup> Short term plans as plans covering one to two years with a break down into shorter periods on certain levels and for certain targets(for instance production plans of enterprises are usually subdivided according to months and for some targets even to days or shifts).

<sup>-</sup> medium term plans as plans over five years or a number of years close to five normally with an annual subdivision.

long term plans as plans stretching over periods from 10 to 20 years.

With extending time horizon conditions of the basic period are loosing significance and the degree of freedom to decide with less strings about the future development of the econory increases. But even in long term plans one should not overestimate these opportunities to bring about considerable structural changes, since beside the various dynamic forces, there are certain stabilizing factors, that have to be taken into account.

Nevertheless, a growing time horizon offers a growing number of possible development strategies or plan variants to choose between. This variability is particularly high in countries where natural resources are too scarce to form a considerable foundation for ecnomic development and therefore the manufacturing industries have to provide the backbone of the productive sphere, and in countries, still in an early stage of economic development. This may provide many additional problems especially since we now have to consider another phenomenon, that is the exactiness of planning information.

In short term planning-based on the high degree of predetermination of the plan-a great share of the economic

<sup>=</sup> income is definitely predetermined for the continuation of projects under construction. This reduces the still" free" national income to 324 units and the list of committments is by far not yet exhausted.

Thus, even with this high growth rate of 10%, it can be expected, that the degree of freedom to decide about the distribution of national incomers very low in annual plans. Similar strings exist of course with regard to the production assortment, which is to more than 90% predetermined by the capacities available and with regard to other important plan targets.

relationships, technical parameters, norms of behaviour and consumers' preferences can be considered as constants or at least as variables with predetermined changes, exactly predictable by the planners.

Thus, even with rather crude planning techniques, the possible margin of planning errors is low and planning can be performed in detail. But with growing time horizon the situation changes considerably, since the information basis of the plan shifts more and more from data reporting about actual developments to data forecasting them and many of the indicators, which for practicle purposes could be regarded as exactly predictable in the annual plan become now variables of a strategic or stochastic type.

<sup>1)</sup> The technological coefficients for each technology of power generation can be planned with a very high degree of reliability in the annual plan, and even in the medium-term plan, since all capacities of a considerable size which will be available during the planning period are already in operation or at least under construction, when the plan is elaborated, But for a 20-year planning period their development is a function of such variables

Results of scientific research and their technological applicability

resources made available for the improvement of the energy basic and investment strategy (extension on the same technological level, reconstruction to achieve a higher technological level etc).

It is obvious, that these variables again are functions of several other variables.

Thus with growing time horizon the quality of planning decisions depends increasingly on the scientific knowledge, that is at hand, when plan elaboration takes place and on the ability of the planners to organize that the latest findings of science and technology are made available to them by means of prognostic work in all relevant fields. But even then certainty and reliability of information will diminish with the extension of the forecasting period and consequently the tolerance range of planning widens. Beside this it becomes more and more difficult and in many cases even senseless, but at any rate too costly to be efficient, to try to plan in detail. Hence growing time horizons in planning imply an increasing generalization and concentration on the decisive issues.

Proceeding from these general remarks one can now describe the main functions of the three abovementioned types of plans.

Beginning with long-term plans (10-20 years), these are the strategic programmes, outlining the most important social aims and the principal development directions of the national economy for the period under consideration.

These tasks are roughly balanced against the resources in order to make sure that they are feasible, but still the greater part of quantification takes place on a highly aggregated level and with considerable tolerances.

The basic issues, dealt with in long-term planning are:

- The development of needs and demand according to large

"need-complexes" (Bedurfniskomplexe).1)

Under these complexes the most important social aims i.e. the aims, for/development of working and living conditions, are planned, Therefore it is this part of the plan, that provides the foundation for all other considerations.

The decisive macroeconomic proportions to ensure the efficient proportional development of the national economy. These are the growth rates of gross product and national income, the distribution of national income according to main funds, i.e. accumulation and consumption and the proportions between the main sectors of the

Labour, Culture,

Nutrition, . Health, . Clothing:

. Housing, . Education,

. Recreation and physical Culture

Communications
Transport

In this context "Housing" means not only the provision of the dwellings but simultaneously the planners have to deal with furniture, household appliances, air-conditioning, environmental problems etc., in order to meet all significant aspects of the housing requirements. It is obvious, that this grouping doesn't coincide with the structure of economic management. Therfore one has to take care, that the targets are properly transformed to the executing organs(ministries, general organizations, enterprises) during the following stages of planning. This provides of course additional methodological problems, but on the other hand this procedure guarantees, that planning is demand oriented, as opposite to a capacity-oriented planning, which is very often the result if one starts right from the beginning to plan exclusively according to sectors. Hence it is deemed worth while to choose this approach in long-term planning, despite the methodological complications.

For further information comparesG, Schilling Bedurfnisse und Bedarf als Ausgangspunkt der Planung-eine grundlegends Frage der Erhohung des wissenschaftlichen Niveaus der Planung, Wirtschaftswissenschaft No, 2, 1973.

<sup>1)</sup> The following grouping of needs is for instance applied in the G.D.R.'s planning practice:

"need-complexes" (Bedurfniskomplexe).1)

Under these complexes the most important social aims i.e. the aims, for/development of working and living conditions, are planned, Therefore it is this part of the plan, that provides the foundation for all other considera-

The decisive macroeconomic proportions to ensure the efficient proportional development of the national economy. These are the growth rates of gross product and national income, the distribution of national income according to main funds, i.e. accumulation and consumption and the proportions between the main sectors of the

Labour, Culture,

'. Nutrition, '. Health,

Clothing:

. Housing, Education,

. Recreation and physical Culture

. Communications Transport

In this context "Housing" means not only the provision of the dwellings but simultaneously the planners have to deal with furniture, household appliances, air-conditioning, environmental problems etc., in order to meet all significant aspects of the housing requirements. It is obvious, that this grouping doesn't coincide with the structure of economic management. Therfore one has to take care, that the targets are properly transformed to the executing organs(ministries, general organizations, enterprises) during the following stages of planning. This provides of course additional methodological problems, but on the other hand this procedure guarantees, that planning is demand oriented, as opposite to a capacity-oriented planning, which is very often the result if one starts right from the beginning to plan exclusively according to sectors. Hence it is deemed worth while to choose this approach in long-term planning, despite the methodological complications.

For further information comparesG, Schilling Bedurfnisse und Bedarf als Ausgangspunkt der Planung-eine grundlegends Frage der Erhohung des wissenschaftlichen Niveaus der Planung,

Wirtschaftswissenschaft No, 2, 1973.

<sup>1)</sup> The following grouping of needs is for instance applied in the G.D.R.'s planning practice:

economy in particular between the production of means of production and the production of means of consumption.

- The main development directions of the most significant components of the social reproduction process as for instance:
  - , the main targets of scientific-technological development.
  - the main directions of specialization of the national economy within the framework of international labour division
  - the principal ways to increase the efficiency of the economy (electrification, mechanization, antomatization etc)
  - a labour force development and education
  - the main features in the development of the energy and raw-material basis (sources of energy, substitution of man made materials for natural resources etc).
  - the general concept of the spatial organization of productive forces, of the settlement network and of environmental development.
- Development programmes for selected sectors/sub-sectors and regions. Such programmes are elaborated for sectors and regions that are decisive for the dynamics of the economy as a whole and in cases, when the character of the processes under consideration demands it. Very frequently both criteria apply to the same programme as for instance in the power and fuel industry or in transport.

Although the importance of long-term planning is

increasing rapidly, due to several reasons the medium-term plans are still the mainstay of the entire planning system.

The five-year plans are the comprehensive, balanced action programmes for economic and social development.

Proceeding from the long-term plan and from the analysis of the actual economic situation (by means of the bringing the long-term plan up-to-date) this plan assigns the tasks and resources to each economic unit from top to bottom. Whereas, in the long-term plans many sections are only elaborated with the regard to/national economy as a whole, in the five year plans care has to be taken, that a clear cut responsibility for all plan targets is gained. This asks of course for more details and a higher degree of definiteness. The five-year plan is the most important instrument, to coordinate and balance all the essential relations among the different sectors and spheres of social reproduction within the national economy as well as the economic relations in inter-national labour

<sup>1)</sup> One should be mentioned here, since it is essential for a planful cooperation between developed socialist countries and many of the "developing countries". In the past the typical pattern of relations between economies on the opposite end of the development scale was the flow of raw materials from the undeveloped to the developed and the flow of finished products vice versa, It goes without saying, that this pattern has to be overcome by means of industrialization on the part of the developing countries, but this implies of course also structural changes in the countries hitherto receiving the raw materials, since some of the processing industries relying on certain raw materials, will at least partly become superfluous in these countries and will be replaced gradually by the growing manufacturing industries of the raw material producing countries. The development of the cotton-processing industry in Egypt provides a good example of this trend, replacing raw cotton exports by the export of yarns, woven materials and ready made garments. To bring about such changes in international labour division as frictionless and efficient as possible asks for a long-term development strategy on both sides and for coordination and cooperation.

division and foreign trade. 1) The hard core of the five-year system of balances, consisting mainly of the following balances: 2)

- Balances of social gross product and of produced and disposable national income.
- Balances of formation and utilization of real income.
- Balances of population and labour force,
- Balances of foreign trade and balance of payments.

and the Manner of the Whiteleys-coherent with the coherent with th

<sup>1)</sup> The CMEA-countries regard the nutual coordination of their five-year plans as a principal method to strengthen their cooperation and the targets agreed upon on the international level concerning labour division among the countries, joint research, joint projects and similar tasks shape more and more the main features of the national plans.

<sup>2)</sup> According to the GDR's planning methodology for 1976 to 1980.

- Balance of the state's finances,
- Balances of building/construction and investment,
- Matural resource and commodity balances (material, equipment and consumer goods.)1)

As far as necessary these balances are subdivided according to sectors and regions.

The short-term (annual) plans are the instruments to execute the five-year plan. There, the targets are set in detail and with the exact timing.

4.2 Importance and contents of long-term plans in territorial planning-criteria to select the tasks for long-term planning

From our review of the three stages of planning, we may conclude, that territorial planning has its tasks in all three of them.

By means of this "Balance-Pyramid" it is guaranteed, that the system is comprehensive without overcentralization and that the balances are elaborated on that particular level, that is most capable for the task.

<sup>1)</sup> The commodity balances form a partial system organized like a pyramid. On the top i.e. by the central planning organ only the most important commodities are balanced in detail and all others in more or less high aggregated commodity groups. The next broader layer is provided by the different ministries, which elaborate within their range of responsibility an already greater number of detailed or less aggregated balances, but the majority of the so-called assortment-balances, i.e. the detailed belances for certain products are elaborated on the level of enterprises and general organizations. There either the main producer or the specialized wholesale trade organization bears the responsibility. In the case of products of regional importance these function is taken over by the regional authorities or organizations/enterprises subordinated to them.

The three types of plans or stages of planning form a certain hierarchy with the strategic decisions(long term plans) at the top and the detailed action programmes (short term plans) at the bottom. Thus, for instance the decision to develop a certain town as a growth center within a given part of the country has to be made in the long-term plan. This decision should include the special functions which this center should exercise within the framwork of national and international labour division in their main outlines (most important projects), the order of size (in terms of inhabitants and area), the intended zone of influence (hinterland) regarding the most important relations (commuter-area, important services for the immediate hinterland), the principal decisions about area-utilization within the town and in the immediate surroundings and the main projects in infrastructure. The medium term plans include then such problems as the annual allocation of investment, the exact timing of the projects, a more detailed specification of their productions, decisions about the microlocations, balances of building capacity, manpower distribution and similar regional resource balances.

The tasks of the short term plans are quite similar to those of the medium term, ones, but in even greater detail and taking into consideration new conditions, that may have developed since the five-year plan was elaborated, In our case this could imply corrections in timing, changes in the demand for regional resources for reason of the development of new resource saving technologies and similar factors.

In chapter one, we identified already the planning of the spatial distribution of productive forces as the decisive task of territorial planning. But this means, that