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PLANNING AND NECESSARY CHANGES

Report by

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INTRODUCTION

The Spread of the Planning System

1. Planning of national development has become widespread in all the Third World countries since the Second World War and since the achievement of independence.

All the Third World countries, whatever their economic and social systems or the level of their development, claim to use national planning as an instrument capable of speeding up their economic and social development. The general spread of this system leads us to ask, along with MYRDAL (1), whether we are not dealing with a certain ideology of economic planning. The major reason for this spread lies in the fact that in these countries the State must and wants to take an active part in the process of economic development.

Given the widespread rigidity to which these societies are subject and the incapacity of the market forces to bring about change, the State has realized that if change is to take place, it must itself intervene.

A plan thus becomes a complex of economic measures expressed in the form of quantitative goals and clearly-defined tasks (2).

This plan comes to be considered not only as the main instrument for coordinating the various political means, but also, and above all, as the main instrument for achieving a certain degree of rationality.

Reasons Explaining the Spread of Planning

Other reasons have played a role in the spread of planning as the main instrument for ensuring a high and rapid rate of economic growth. Among these reasons, we must list, first of all, the demographic factor. It is well recognized that the demographic trends in the Third World countries, in both their quantitative and qualitative aspects, represent a serious stumbling block along the road to economic and social development.

The demographic conditions of a quantitative nature, relative to birth-rate, death-rate and age structure, together with those of a qualitative nature, represented by the overall accumulation of human skills, have attracted the attention of some authors, who tend to see in this demographic aspect a basic obstacle to all efforts at development. They hold that the particular characteristics of demographic

evolution in the Third World countries constitute a sort of block, to the extent that every increase in income is immediately translated into a decrease in mortality and an increase in the birth-rate. This situation has led certain economists, H. LEINENSTEIN in particular, to see in it the origin of a vicious circle (3).

3. Another reason lies in the changes that have taken place in international capital movements, which require the governments to resort to planning, to a greater or lesser extent. At one time, during the colonial era, the capital requirements of the underdeveloped countries were ensured by the international capital market; this influx took the form of direct private investment. Now, instead, the greater part of capital influx depends on inter-government agreements and takes the form of public, intergovernmental loans. Therefore, before supplying the capital, the government making the loan and the I.B.R.D. want to see some well-defined investment project, fitted into a plan of economic and social development (4).
4. A fourth reason lies in the trends of international trade, which can be summed up as follows: on the one side, the trend towards stagnation in the volume of exports from the developing countries, made up essentially of raw materials, and the century-old deterioration of their terms of trade, both of which have led to a decline in earnings; and, on the other, the trend towards a constant increase in imports as a result of industrialization. The result is a chronic deficit in the balance of payments in almost all the developing countries and, as a consequence, their limited capacity to import the indispensable to continue industrialization. To remedy this state of affairs, most of the developing countries have practiced a policy of substituting imports, a policy which in turn requires a certain planning in the use of their foreign currency holdings (5).
5. The fifth reason for the spread of the planning system lies in the fact that it constitutes one of the principal means of achieving a higher level of that national unity which had suffered so long during the colonial period: in the first place because it creates a new institutional structure for channeling government policy and, in the second, because when planning is crowned with success, it becomes a symbol of national success (6).
6. Aside from the above reasons, connected with the international situation of the Third World countries, there are others that

we can consider as exogeneous, since they are connected with ideological influences coming from the outside, and particularly from the Eastern countries.

In fact, the planning practices systematically used by the Socialist countries, which have permitted them to reach social and economic development in a short time, have fascinated the Third World intellectuals, making them ardent advocates of planning.

It should be remembered that some Western capitalist countries, particularly France and Italy, also adopted planning to solve the problems of economic reconstruction after the Second World War.

7. However, although we encounter planning in almost all the developing countries, its extent and subject matter vary greatly according to the economic and social systems. In those countries with planned economies where the principal means of production are owned and exploited by the State or cooperatives, planning is generalized and imperative in nature; in those developing countries with market economies, instead, where the means of production belong largely to the private sector, planning is essentially reduced to consultation between this sector and the public sector; it is indicative, and real planning in execution is limited to the public sector (7).

The Disappoint Results of Planning in Most of the Developing Countries

8. Although planning has been adopted in almost all the Third World countries, the results obtained during the past decade have not been up to expectations. In fact, despite the disparity among growth rates registered in the various developing countries or regions, and the basic variety of economic and social conditions, the overall growth rate of gross national product achieved by these countries during the period 1960-67 was about 4.6% per year, but the gross national growth rate per capita was only 2%.

In many countries, the average overall growth rate per capita of gross national product actually decreased with respect to the average rate achieved during the 1950's. Few countries have made really rapid progress, if we exclude those that have benefited from exceptionally favorable external conditions (particularly the oil-producing countries).

In many countries, instead, the growth rate has been very modest; in particular, the result obtained in many

countries with large populations and low per capita incomes has proven to be clearly insufficient.

During that same period, the developed countries maintained a high economic growth rate. Between 1960 and 1967, the developed countries with market economies achieved an overall growth rate of gross national product equal to 5.1% per year and a growth rate per capita of 3.8%.

In the countries with planned economies, such as the Soviet Union and the Eastern European countries, the overall growth rate of gross national product was 6.7% and the rate per capita was 5.4%.

The developed countries have made new progress in science and technology and have intensified their trade and cooperation (8).

If we take the growth rate of national product as the main index of development, the results are disappointing; but they become even more disappointing if we consider the extension of economic and social structural transformations necessary for development. As is known, the economies of developing countries are characterized by a duality, because of which economic and technical progress leads to an accentuation of the contrasts between the modern sector and the slower sectors and points up the social and economic disparities. Their social structure presents various inequities and an element of rigidity which can be ascribed to the basic regime, the political structures, education systems, external forces and various traditional practices and modes of behavior. Under these conditions, an increase in production or income represents only one of the indexes of development. Such an increase must be examined together with other indexes revealing the other aspects of development.

Many authors ask, and not without reason, whether there is not a certain impossibility for development in the Third World countries.

Poverty and underdevelopment continue to exist as a dynamic process that widens the gap between rich countries and poor countries (9).

9. There are those who have gone so far as to question the utility of planning for economic development in these countries. The main cause of this pessimism is the slow-down in economic growth in the developing African countries. In fact, Africa is much less favored than the other underdeveloped continents. Only seven African States have achieved an annual

per capita income of 200 dollars, while in 15 out of the 39 independent countries this figure is less than 70 dollars. Such a low income level is accompanied by all the classic symptoms of a poor economy: a short life-span, low education levels, a backward agriculture due to the low productivity of the subsistence sector, insufficient integration of the economies, etc.... (10).

Some of the Big Problems Encountered by Planning

10. The political instability of almost all the Third World countries prevents the creation of a political power capable of carrying out a minimum of social transformations; moreover, so as to avoid attacking certain vested interests head on, some governments simply do not take social measures or restrict themselves to very limited ones. (11) Many of them waste most of their energy in political power games, rather than devoting it to economic and social progress.
11. The demographic factor contributes to worsening the conditions of development and planning, since in most of the Third World countries energetic measures for family planning to improve the unfavorable demographic conditions have not been taken. Heavy demographic growth, higher than 2.5% per year, has eaten up the narrow profit obtained through increase in gross national product. (11-a) Heavy migration from the rural areas towards the cities has upset the balance between urban and village life, creating serious problems in housing, transportation and jobs. The high birth-rate and low death-rate have produced a bottom-heavy age structure, which has raised the level of national consumption and forced the governments to channel a considerable part of their resources into investment projects whose returns are indirect and long-term, such as education, health and clothing. The slow-down in the growth of agricultural production has often endangered the economic and political equilibrium, and consequently, also the development process.
12. A certain number of Third World countries, among which Egypt, which at one time thought their internal food supply to be sufficient, have been forced to realize a deficit in cereal production. They must therefore sacrifice increasing sums of foreign currency to import food to make up for the insufficient quantity available. To reestablish the balance in food production would require action for the transformation of agriculture and the connected sectors. But this transformation is not possible without political structures capable of

adopting a radical agrarian reform (12). In those countries where an imbalance in the structures of the food sector already exists, we can expect to see the application of planning periodically jeopardized by crises in supply and currencies constantly threatened by galloping inflation, unless the development rates projected for the other sectors are reduced or long-term aid in food supply is obtained from abroad.

13. Another big difficulty encountered by planning lies in the fluctuations of export income and the uncertain variations in international aid. As is known, foreign currency resources represent a decisive element in determining the real evolution of total production, investments and consumption during any given year. Most of the Third World economies are not autonomous, in the sense that a large part of their total production is destined to foreign trade or comes from foreign trade. Furthermore the production capacities of these economies adapt but poorly to the present structures of demand, and particularly to the structures of the new demands that progressively emerge as the economy expands. The supply of intermediate goods and equipment goods is negligible when compared with the growing need for those goods required for new projects, whereas the country's capacity to import is increasingly unstable. In fact, the stagnation in the volume of exports and the deterioration of the terms of trade for basic agricultural products (13), on the one hand, and the fluctuations in the flow of foreign capital towards the developing countries, on the other, are the underlying cause of an insufficient capacity for importation. In the face of this situation, many countries have been forced to reduce their rates of economic development. To remedy the lack of foreign currency and permit the implementation of their plans, most of the Third World countries have been forced to ask for financial aid and technical assistance. Unfortunately, the volume, distribution and continuity of this aid depend on many political factors and are, consequently, subject to the vicissitudes of international politics. We must point out here that as concerns international aid, we are still far from the goal auspicated by the U.N. General Assembly when it invited the rich countries to devote 1% of their gross national product to international aid. L. PEARSON, called to preside over a U.N. commission for cooperation and development, expressed the same goal and invited the rich countries to grant their aid through the international organizations (14). But the rich countries devote only 5% of the gross national product to aid, in the form of credit, aid and capital

investments. Furthermore, we hold that the capital imported by the underdeveloped countries more or less equals what they lose through the expatriation of profits, interest on loans and credit and inequitable trade terms. The prospects in this area are by no means good, since the developing countries' capacity to pay back loans will necessarily limit their borrowing abroad (15).

We must therefore conclude that international aid must be extended, improved and, above, all, coordinated with the internal economic situations of the developing countries.

14. Another difficulty arises from the shortage of skilled manpower and personnel required for the elaboration and implementation of the plans and projects, as well as in the management of enterprises. For many countries, the lack of skilled personnel represents one of the main obstacles to planning and the execution of the work required for development.

15. The narrowness of markets poses another problem. This narrowness is particularly marked in many African and Middle Eastern countries, small States whose population is too limited (16) to build up a demand sufficient to support basic industries, such as metalworking and mechanics. This problem raises another: the problem of regional integration among these countries.

We cannot conclude this list of difficulties without recalling the weight of armament, which absorbs a large part of the resources of certain developing countries. At times, military spending exceeds the total of all investments and obviously constitutes a serious loss for these countries and the most serious reason for their economic and social backwardness.

16. In the face of these problems, we do not share the hopes expressed by the U.N. experts with regard to development predictions for the 1970's (17), unless some serious rethinking takes place on the planning system as practiced so far.

In this report, we shall attempt to make some suggestions aimed at improving the planning system, as the main instrument for economic development. These suggestions refer: a) to the scarce importance given by the authors of plans to the role played by non-economic factors in development processes; b) to the growth models currently resorted to in the elaboration of plans; c) to the need to transform the agrarian structures; d) to the importance of action to change the demographic structures; e) to the realization of democracy through planning.

I

Neglect of non-Economic Factors in Planning for Development

17. Many Third World countries seem to have been surprised to discover all of a sudden that national development, and particularly a planned development aimed at maximal growth and deep structural change, is a slow process indeed. But they were even more surprised to discover that, despite their efforts, they could not succeed in creating an environment capable of guaranteeing the continuity of a development process. They discovered that the greatest obstacle to overcome lay in institutions, habits and traditions that prevented the creation of a new man. In a large part of these countries not enough has been done to increase the possibilities for successful implementation of their development plans through a minimum of essential institutional reform. It is for this reason that in most of these countries planning has been experimented in a relatively unfavorable social and institutional context.

To this difficulty we must add the widespread practice, on the part of the organs in charge of planning, of considering only the economic factors (capital, savings, investment, etc.), to the neglect of the non-economic factors (traditions and institutions).

The Complexity of the Social System

18. Today everyone admits that a social system is made up of economic and non-economic conditions (or factors), linked together in a cause and effect relationship to the extent that a change in one conditions brings about changes in the others.

In Marxist terminology, the economic factors constitute, in a way, the infrastructure, and the non-economic factors, the super-structure.

The main economic factors are connected with income, production and living standards. The main non-economic factors concern attitudes towards life and work, institutions and political behavior (18).

From an economic point of view, the most important general characteristic of the underdeveloped countries lies in the fact that the average productivity of labor is very low and, consequently, national production is also low. The result

is a low national income per worker and per capita. The low level of productivity and income can almost be taken as a rough index of the level of underdevelopment of a country (19).

The industrial sector, and particularly the big industrial sector, is minimal. In all the other sectors, and particularly in agriculture and the crafts, production techniques are primitive and capital intensity is low. The relationship between savings and income is very low; consequently there are no long-term productive investments. Economic and social infrastructures, particularly in the transportation and energy sectors, are inadequate. The utilization of manpower is low as concerns participation, duration and effectiveness, and this, in the last analysis, determines the low productivity of labor.

These conditions are directly interrelated; thus, the low rate of savings tends to limit the formation of capital; the primitive production techniques are partly the result of low capital intensity, since more advanced techniques would require more capital per man. The same holds true for the distribution of the labor force among the various sectors of the economy; thus, while many workers are employed in activities requiring little or no capital, only a few are employed in activities requiring a large amount of capital, but also capable of increasing production. The low productivity of labor and its inefficiency are, to a large extent, the result of primitive techniques and insufficient capital.

In the underdeveloped countries, living standards tend to be low for the great mass of the population and to present specific quantitative and qualitative deficiencies: inadequate nutrition, poor housing conditions, inadequate medical and pharmaceutical care, inadequate facilities for education and culture at all levels, etc...

The low living standards are primarily due to the low levels of productivity and income; reciprocally, they are the cause of the low productivity and inefficiency of labor, which figure among the causes of the low income levels.

This triangular causal relationship between productivity and income, standard of living and productivity and inefficiency of labor is one of the crucial determinants of development.

Attitudes towards life and work are deficient from various stand-points: a low level of discipline and punctuality in work; superstitions, lack of enthusiasm, adaptability, ambition

and interest in general in change and experimentation; disdain for manual labor; passive submission to authority and exploitation; a poor attitude towards cooperation; little notion of personal hygiene, etc. ...

All these attitudes together indirectly, but negatively affect the conditions of production and the utilization of income to obtain the highest possible living standards. In the opposite direction, however, these undesirable attitudes are all to a large extent functions of the low living standards and therefore, indirectly, of the low levels of productivity and income, of which they are, at the very same time, one of the causes.

This causal relationship is also among the crucial factors underlying underdevelopment.

The national community is also characterized by a certain number of institutional conditions unfavorable to economic development: archaic agrarian structures; inadequate institutions for enterprise, employment and credit; inadequate national consolidation; inadequate authority of government organs; instability and inefficiency in national politics; low standards of efficiency and integrity in the public administration; inefficient provincial and local government bodies, etc...

Underlying all these institutional weaknesses is an insufficient level of popular participation.

On the basis of this list, we can recognize the complexity of the social system, since the causal relationships are not limited to within each group of factors, but also exist among the different groups.

The interdependence among factors is neither simple nor clear. If we could list the individual factors and evaluate all their causal relationships, then perhaps we could give a complete explanation of the cause and effect relationships underlying the present state of these factors, their changes or total lack of change.

21. A very common idea in the literature of underdevelopment tends to explain that social progress in the poor countries is dominated by vicious circles (20), of which the best-known is R. NURKSE's vicious circle of poverty. According to this idea, a situation of equilibrium of self-perpetuating underdeveloping leads to economic stagnation. The poor man is poor because he is poor; and indeed he tends to get poorer because he is poor.

The greatest criticism that can be addressed to this concept lies in the fact that it does not explain the ties of causality existing between the economic and social factors. It gives no indications on the threshold (21) beyond which we can be sure that a cumulative upward movement will begin; nor does it explain why in reality, even though this threshold is reached, this upward movement does not take place. The ties of causality in this case would constitute an advantage, since the process would be self-sustaining.

Separation of Economic and non-Economic Factors

2. Despite this evidence, many economic models and most of the works on planning separate the economic factors from the non-economic factors, concentrating their analysis on the former. This tendency is based implicitly on the following premises:
- 1) that the chain of causality goes from the economic conditions to the non-economic conditions; in other words, the infrastructure dominates the superstructure. This first hypothesis, as G. MYRDAL (22) reminds us, is often tantamount to accepting the Marxist hypothesis according to which culture is a superstructure built on the mode of production and thus simply a function of economic conditions and, specifically, of production (23).
 - 2) that efforts to directly change the non-economic conditions are difficult, if not impossible.
 - 3) that economic factors are considered more accessible to observation and analysis than are social factors.
 - 4) that economic quantities are objective, since they can be reduced to a common denominator and expressed in monetary terms, which is to say that they are quantifiable, whereas social factors are not and therefore cannot be the objects of value judgements. But these ideas are false (24).

One of the consequences of this separation has been the concentration of planning efforts on the economic factors. The governments' efforts at implementing development planning by means of investments in infrastructures and new industries have produced a certain increase in production and income in some sectors of the economy. But the extension of these results to the other sectors has been weak or absent. The reason is that this extension has been prevented by attitudes and institutions. The "take-off" can be abortive and not have as a result a self-sustaining growth. In effect, in the under-developed countries, attitudes and institutions are generally

less favorable to the extension of development stimuli than in the highly developed countries. In the latter, a long process of adaptation to rationality has already taken place, giving rise to a collective mentality, attitudes and ideas, spread by education and generally penetrating social relations. In the underdeveloped countries, instead, efforts at convincing people to accept innovation encounter greater resistance, and the development stimuli may be hindered or brought to nothing by the existing attitudes and institutions.

In writings on the problem of development in the underdeveloped countries, it is always admitted that a close relationship exists between the effectiveness of development policies in the economic sphere and the prevailing attitudes and institutions. Indeed, it has become almost a cliché to say that the political revolution will have to be followed by a social revolution in order to permit an economic revolution. But despite these stereotyped statements, the tendency in practice seems to be to hope that social change will follow in the wake of economic change, since an economic development is what is in fact attempted.

The exclusion of the non-economic factors from the models normally used in economic analysis and planning has produced a serious distortion (25) in our understanding of the development process.

It seems evident that the practice of separating the economic factors from the non-economic factors and the importance given to the former, to the detriment of the latter, is a result of the fact that economic policies are easier to implement than social policies, which challenge vested interests, violate deeply-rooted inhibitions, offend traditions and beliefs and work against the dead weight of social interest.

The socialist countries, particularly the Soviet Union and China, have used State force to change attitudes and institutions. But the almost totality of the governments in the underdeveloped countries do not want to follow this example. They barricade themselves behind the term "democratic planning", but this is only a way of hiding their lack of resolution and ability in using force to enforce existing laws and regulations and to make new ones.

The "soft" State (26) is one of the main characteristics of underdevelopment and the principal reason for the failure of planning. In fact, it helps to raise almost insurmountable obstacles and inhibitions in the way of development. By protecting all the factors outside the economic sphere, from preventive and vigorous attack, it seriously hinders economic

development. In this situation, planning based on simple economic models which ignore the non-economic forces serves as a convenient rationalization. To support this rationalization, it is claimed that analogies exist between conditions in the underdeveloped countries and those in the developed countries. The transformation of the "soft" State into a "strong" State, where the law, its effect and enforcement, are more rigorous, is, in our opinion, the most important task to accomplish to make rapid development possible. Development planning, as ordinarily presented and discussed, i.e. without considering this problem, becomes completely superficial and, more often than not, senseless.

II

Economic Models and their Usefulness in Planning

25. The separation between economic and non-economic factors is reflected in the development models used in planning. This unrealistic and dangerous separation leads us to question the usefulness of these models.

If we examine the underlying hypotheses which are closely connected with the construction of these models, although they are usually not formulated explicitly, we can discover the errors going into the analysis of the models. These hypotheses are:

26. 1) that certain parameters, which are tacitly supposed to be fully suited to the process of development, will remain constant or will be automatically adapted; consequently they do not constitute an obstacle to the application of the models. This practice is clearly reflected in the models themselves in the distinction between variables and constants and between dependent variables and independent variables.

For example, the hypothesis according to which the state of the arts and technology will remain constant is unsuited to the underdeveloped countries, since the application and adaptation of technical advances and technologies coming from the more advanced countries is generally considered to be the most important tool in development.

Furthermore, certain economists claim that the very essence of the theory of growth can be found in technical progress, in the broader sense of the term (27), and that increase in accumulation is nothing more than a symptom of this growth, rather than its cause.

Similarly, H. LEIBENSTEIN (28) thinks that the problems of development lie not in an increase in capital supply, as many economists would have us think, but rather in an increase in demand, which can only be ensured by a step-up in the pace of technical progress. He formulates this point of view on the basis of two observations: 1) most of the increase in production has been obtained over the last two centuries, thanks to certain major innovations; 2) without a change in production techniques, an increase in accumulation would not in itself permit a strong increase in production in the developing countries. The technical progress these countries need is a production technique based on mechanization, rather than animal power.

Prevailing attitudes and institutions are also taken to be constants (the hypothesis is often implicit) and fully adapted to the development process. This hypothesis may well be realistic for the developed countries, but it is unrealistic for the underdeveloped countries. From the recent experiences with planning, it has emerged that the adaptation of attitudes and institutions is by no means automatic, and this has led to slow-downs in the development process. Today, it is recognized that drag on development efforts comes from these prevailing attitudes and institutions.

2) The models concentrate on only one factor of production, taken as the "strategic factor". This factor is usually capital. One type of model that dominates the literature and planning itself is the Harrod-Domar model, with its many variations. The strategic variables chosen are here grouped together as production, investment and labor. But instead of the neo-classical hypothesis that capital can be perfectly substituted for labor, the point of departure is the technical coefficient hypothesis, so that production is determined by the capital-production ratio, which goes under the name of the capital coefficient. This coefficient is often used in establishing development programs, with two aims: the first is to estimate the amount of capital needed for a given increase in production. To a lesser extent it can be used as a criterion for distributing investment among the various branches of economic activity, since the sectorial coefficients indicate the capital intensity of the various sectors of the economy.

8. But capital is only one factor among others taking part in the production process. We cannot therefore interpret the results of production considering only capital variations, nor can we attribute to these variations a major role in the variations of production, without understanding the interdependence between capital and the other factors of production. Moreover, are there not perhaps reciprocal relationships between the factors of production and production itself? Why then consider the ties of causality in one direction, rather than the other?

The labor factor is as much responsible for the results of production as is capital. The quantity of labor and its variations depend on the volume and growth rate of the population. The quality of labor is determined by the means of production obtained through investment and technical progress, keeping in mind the interrelationships existing between these last two variables.

Thus labor, as determined by the demographic factor, and capital, as constituted by investment, (without considering technical progress) are two factors contributing to production. Production consists in the joint action of these two complementary factors. Determining the part played by these two factors is the object, among others (29), of production functions, of which the most used are the Cobb-Douglas type, homogeneous, linear production functions with two factors: capital and labor.

The most important thing is, in any case, not to forget that these two factors - capital and labor - collaborate in production and are more or less interchangeable.

29. The significance of capital coefficients is further limited by the role of technical progress in the production process, a role which the theory of capital is not capable of defining.

The difficulties arise from the interrelationships existing between capital and technical progress. It turns out that technical progress influences the capital coefficient, in one way or the other, and is far from being neutral (30), as has often been supposed.

In fact, increase and speed of gross capital accumulation are not entirely independent of the pace of innovations, but the latter can be brought on by the dynamism of accumulation (31). How then can we distinguish between those innovations that are autonomous and those that are induced?

Furthermore, the influence of technical progress on the rate of accumulation depends on its nature. In this regard, it is useful to distinguish three types of technical progress: a "capital using" innovation, a "capital saving" innovation and a neutral innovation. The first type corresponds to an increase in capital intensity; the second, to a decrease; and the third leaves the capital coefficient unchanged. There is nothing to indicate that some sort of balance among the three types of technical progress leaves the capital coefficient unchanged.

30. The models make use of aggregates, such as capital, production, income, employment, etc. We know that the economies of underdeveloped countries are characterized by imperfections in the market, rigidities, lack of diversification. In this situation, the use of aggregates hides more than it reveals.

For the coefficients to be meaningful, the magnitudes figuring as numerator and denominator must be homogeneous.

For example, capital in itself does not exist; it is, by nature and by use, heterogeneous. It becomes all the more difficult to respect the condition of structural homogeneity, the broader and more heterogeneous the group of capital assets considered. Must we limit the nature of capital to be used to reproducible durable assets alone? Must we give the same importance to the various components of the reproducible assets? Must we include certain intermediate consumption goods?

The heterogeneity of the components of capital implies the heterogeneity of its products, and, consequently, raises the problem of their inclusion in the estimated product of capital. But this heterogeneity is less serious than the other, since the solution adopted to realize the homogeneity of capital resolves, at the same time, the question of the homogeneity of the product.

Quite often, the heterogeneity of the goods making up capital and product is paralleled by a heterogeneity in their measurement. The methods of measuring capital, for example, are numerous and give different results. According to whether one uses the capitalization of services rendered or to be rendered, original cost with or without amortization, the cost of replacement with an equivalent object or the market value, very different results are obtained.

31. The problems we have just explored greatly limit the usefulness of models in the specific circumstances of the underdeveloped countries.

National planning in the developing countries must be a coordinated system of policies aimed at a great number of conditions which will have to be changed in order to promote development. The approach to planning represented by models tends to hide this fact and does not produce a theoretical framework useful in this type of planning.

Planners in developing countries must convince themselves that the attitudes and institutions that constitute the principal obstacle to development are not changeable through investment. On the contrary, the effects of a development plan with a given amount of investment differ greatly, according to the policies with regard to attitudes and institutions followed in connection with investments.

32. The big question is how to achieve the institutional transformation indispensable for planning. We shall now point out several measures capable of modernizing the political structures and institutions, and, consequently, of transforming the "soft" State into a "strong" State.

These measures are related to the transformation of the agrarian structures, the transformation of the demographic structures and the realization of democracy through local participation.

Transformation of the Agrarian Structures

33.

We have already pointed out that in most of the developing countries agricultural production increases at too slow a rate. At times, it is actually stagnant. As for per capita production, in the most favorable cases it barely increases, and in certain countries tends to fall. Everyone recognizes today that these difficulties depend, to a large extent, on the persistence of archaic agricultural structures, which in turn produce the mental structures, social attitudes and institutions that stand in the way of development.

We do not intend to go into any depth to show how the attitudes and behavior of the tradition-bound peasant, the great landlord and the government can prevent development in agriculture. It is enough to say that the tradition-bound peasant continues to work as his ancestors did before him, obtaining very mediocre returns on his efforts. He is incapable of breaking out of his situation by himself; he cannot work any harder because he is undernourished and ill; he cannot invest more because he is poor. We therefore find him resigned to fate as a traditional peasant (32).

If the traditional peasant's lack of aspirations is an obstacle to development in agriculture, much more serious are the consequences of the large landholding system. The landlords rarely make investments in their agricultural property, because they can earn much more in urban land speculation and by loaning money at userious rates. They therefore invest only the minimum indispensable to maintain the level of production. Furthermore, they do not have any desire to exploit their holdings themselves, since in most of the underdeveloped countries the prevailing mentality despises the working of the land to the same extent that it prizes its possession. Finally, these landlords have no interest whatsoever in changing the agrarian structures, and unfortunately, thanks to their political power, have succeeded in aborting agrarian reforms, even the most radical.

As concerns the government, it must be said that even though some of its members are not an emanation of the large landowning class, none of them are deeply interested in the problem of restructuring the rural sector. The governments have given priority to industry, to the detriment of agriculture. Naturally, growth and economic development in a non-industrialized country is impossible; but industrialization cannot succeed without parallel development in the agricultural sector.

Demographic Growth and Agrarian Structure

34. It is recognized today that the strong demographic increase in the underdeveloped countries has led to a deterioration of man-land relationships. If historically (33) demographic growth led to changes in the system of agricultural exploitation - in particular, the transition from extensive to intensive farming and the introduction of better tools - we have now reached the point where strong demographic pressure on the land is accompanied by a constant fall in production per worker. In the face of such a situation, the neo-classical analysis which saw strong population growth as a stimulus to savings and investment, is not applicable to the underdeveloped countries at the present moment (34).

But strong demographic growth has repercussions on three other levels directly concerning agrarian structures:

- a) fragmentation of agricultural holdings. This fragmentation directly contributes to soil erosion, to decreased fertility, to wasted manpower and money and, indirectly, to malnutrition.
- b) archaic production techniques. Technology does not progress, since this would require optimal size in holdings, on the one hand, and the existence of industries producing agricultural equipment, on the other.
- c) maintenance of a certain organization of agricultural rotation; it is now essentially oriented towards subsistence consumption by the rural population and not towards a market.

These agrarian structures affect agricultural production. In the first place, the productivity of labor is very low; this depends, on the techniques in use, but also on the deterioration of the soil. The productivity of the land per hectare is also very low, and this again depends on the fact the land has not been cared for or reconditioned. Indeed, it has been exhausted by successive harvests that leave no time for a recuperation of fertility; it has been damaged by erosion, which is itself the result of a whole political and social history.

The Ineffectiveness of Agrarian Reforms in Most of the Developing Countries

35. Most of the governments are aware of the obstacle represented by these agrarian structures and, to do something about them, have undertaken agrarian reforms, which became fashionable after the Second World War. But in their concern to realize

a certain amount of social justice or to shore up their own power, they have placed the accent on distributing the large landholdings among the poor peasants. The result has been an aggravation of fragmentation and a consequent decrease in productivity.

Furthermore, these measures have had a negative effect on saving and investment, since the investors were the large landowners, who have not lost their income; and the new owners, the poor peasants, seeing their income increase, have increased their consumption (35).

Two Types of Reforms Necessary in the Restructuring of Agrarian Structures

36.

In our opinion, the restructuring of agrarian structures, requires two types of progress: progress in "organization" and progress in "equipment".

- 1) We shall define as progress in "organization" all those tasks that must be assigned to agrarian reform, i.e.:
 - a) grouping of agricultural holdings: this grouping is necessary both to provide agriculture with the infrastructure required for the introduction of technical progress, particularly mechanization, and for the purposes of soil conservation.
 - b) regulation of relations between peasants and landlords: this regulation must reconcile economic efficiency with social justice. The need for such regulation can be seen in the fact that the peasants feel no security under a system of tenure that does not protect their rights to the land.
 - c) systematic development of a network of agricultural cooperatives: cooperatives have a series of essential roles to play. These roles are at least three in number: the sale of agricultural produce, supplying the countryside with industrial products and agricultural credit, the development of schooling and professional and technical formation. In general, the cooperatives must do everything they can to promote cooperation and collective working habits.

This first type of reform would increase the productivity of labor and of the land, correcting the above-mentioned defects of agrarian reforms leading to reduced efficiency of already existing productive measures. Similarly, it would influence collective behavior, as a result of the establishment of serious

cooperatives, which would improve basic attitudes towards work and change.

But the importance of this type of reform lies even more in the fact that it constitutes an indispensable precondition for progress in "equipment" permitting full exploitation of agricultural resources.

37. 2) Progress in "equipment" can be defined as those measures necessary for improvement of the technique of agricultural exploitation through use of equipment goods and intermediary goods of industrial origin.

Despite the controversies (36) among economists over the opportunity of mechanization of agriculture in the underdeveloped countries, we believe it to be indispensable from many points of view.

First of all, the underdeveloped countries, particularly those suffering from overpopulation, need to economize their soil. This can be done, above all, through the use of certain means of industrial origin, the principal - and by far the most important - being chemical fertilizers which increase the productivity of the land. But tractors and other agricultural machines are also necessary to increase land productivity.

Secondly, the introduction of machinery leads not only to an increase in agricultural productivity, but also to an interesting change in the peasant's way of life. In fact, as the U.N. experts have observed (37), under the system of animal traction, the peasant's working hours coincide with those of the animal; but with a machine, he spends less time in the fields and can arrange his working hours accordingly. As a result, the differences and distance between the rural and urban collectivities are lessened, to the great advantage of the farmer's daily life.

Finally, contrary to the opinion of the opponents of agricultural mechanization, we hold that progress in equipment will favor a numerical increase in agricultural workers.

In fact, the mechanization of agriculture requires a certain number of infrastructure projects, which in part we have already examined (grouping of holdings, the development of a distribution network for cooperatives); but at the same time, it requires the installment of a road system for transportation of the machines. Furthermore, the expansion of agricultural exploitation, both horizontal and vertical, will almost undoubtedly give rise to new jobs, and this time to stable jobs.

38. Those who oppose the mechanization of agriculture in the underdeveloped countries argue that a certain choice is necessary in production techniques. This choice must achieve the optimum combination of production factors: labor, capital, natural resources, land, keeping in mind that the scarce factors are capital and land, whereas labor is abundant. The conclusion is that mechanization in agriculture is justified only in those countries where manpower has become scarce as a result of the opening up and improvement of vast arable areas, which is not the case in most of the underdeveloped countries (37a).

To answer these arguments, we must make a distinction between two types of technical progress which require the use of machinery in agricultural operations. The first essentially tries to economize on natural resources, particularly soil and water; the second essential tries to economize on manpower.

To the first type belong the use of fertilizers, insecticides and agricultural machines for irrigation and drainage, along with the suppression, to a certain extent, of animal power which requires that an important part of cultivated land be set aside for pasture and haying.

To the second type belong the introduction of various types of machinery aimed at offsetting the shortage or growing cost of agricultural labor.

The first type of mechanization is, in a way, the essential one.

The Egyptian Experience in Agrarian Reform

39. The above is in part based on the results of agrarian reform in Egypt. This State undertook a first agrarian reform in 1952, followed by a second in 1961. Both improved the organization of Egyptian agriculture, but without completely eliminating its structural defects.

The goals set for the 1952 and 1961 agrarian reforms can be summed up as follows :

- a) Redistribution of large land holdings to achieve a certain degree of social justice (38)

In 1964, the land area affected by the reform laws amounted to 944457 feddans, or 15.3% of the total area under cultivation. But the area actually distributed to the "landless" peasants was only 646775 feddans, or 68.5% of the area affected by the reform.

One of the consequences of the application of the reforms lies in the increased fragmentation of agricultural holdings, which is the most important problem for Egyptian agriculture. To correct this serious defect in the reform laws, the government adopted measures intended to regroup the agricultural holdings.

The grouping system brings together small holdings under a regime of controlled rotation, permitting methods of cultivation applied on a large scale. This system does not injury property rights nor limit the owner's right to dispose of his own lands; the owners can sell their holdings or dispose of them as they please, so long as they continue to be cultivated according to the general system of controlled cultivation. The division of the land for the purposes of inheritance has no effect in this case.

We are convinced that this grouping system is the best suited to local conditions, on both the economic and social level, since it offers the advantages of large-scale cultivation and stimulates the peasants to work by conserving their property rights.

b) Regulation of relations between peasants and landlords

40.

Before the land reform laws, relations between the landlords (and particularly the large landlords) and the peasants who cultivated their lands were semi-feudal. The 1952 law, perhaps for the first time in the history of Egypt, established the rights and duties of farmers without land of their own. It set the amount of rent at seven times the amount of land tax and the minimum duration of agricultural contracts at three years. The 1952 law also provided for the development of credit facilities, particularly co-operatives.

Evaluation of the Results of the Egyptian Agrarian Reforms

The results of the agrarian reforms can be summed up as follows (39) :

First of all, the reforms led to a considerable fall in rents. In fact, the average rent per feddan for the years 1950-52 was around 30 L.E.; this fell to 25 L.E. in the course of the period 1960-64, or 17.3% of the 1952 figure.

Secondly, the renting market before and after the reforms underwent a marked change. Actually, the area of holdings held under lease increased, although this may seem to conflict with the redistribution of large holdings in favor of the "landless" peasants. The explanation is that the reform

laws authorized landlords holding more than the permissible limit to sell their surplus land to persons owning no more than five feddans; thus a large number of non-farming investors became absentee landlords.

Finally, the repercussions of the reforms on the redistribution of land, on rents, tenancy and agricultural wages all produced a redistribution of agricultural income in favor of the poorest strata of the rural population.

We can estimate that the per capita income of the "landless" population almost doubled between 1952 and 1964 (and increase of 95%); small farmers (less than five feddan) increased their incomes by 20% between 1952 and 1964. The income of medium-sized farmers (5 to 20 feddan) underwent an insignificant fall (1%), and the large farmers (more than 20 feddan) lost about 13% of their income (40).

We must however observe that, despite the redistribution of agricultural income in favor of the poorer strata, an extreme inequity in the distribution of agricultural income remains the rule, since in 1964, 52.5% of the rural population received only 27% of agricultural income. Taking into account the small farmers, who in that year made up 40% of the rural population and received only 30% of agricultural income, then 92.5% of the rural population received only 57% of agricultural income. The large landlords (1% of the rural population) received 24% of agricultural income. Unfortunately, this extreme inequity is not corrected by the tax system, since farming profits are not taxable. This is one of the weaknesses of the agrarian reform laws.

Criticisms of the Agrarian Reform Laws

The basic criticism of these laws lies in the fact that, in aiming at the redistribution of the land to the "landless" peasants, they did not provide for collectivization and the cooperatives they do provide for are limited to the traditional activities of supply and sale of goods.

As we have pointed out, the cooperative system has a great role to play in changing the attitudes of the rural population, directing it towards non-traditional tasks, with the aim of mobilizing the labor potential of the countryside towards greater productivity.

The cooperative must establish itself in every village and be considered the basic economic unit of the countryside.

Furthermore, it must ensure rotation, the proper operation of the groupings already realized; it must provide a framework for the establishment of rural industries, as well as secondary infrastructure services, such as secondary irrigation systems, drainage systems and roads. Finally, the cooperative must provide for the professional formation of its members.

IV

Transformation of the Demographic Structures

42. The speed of demographic increase in the developing countries and the danger this entails for the efforts made by these countries to raise their standards of living constitute the major obstacle to planning for development. During the past decade, the average rate of population growth in the under-developed regions was more than double that in the developed regions (41).

Forecasts by U.N. experts predict that this dangerous trend will continue during the present decade. According to these forecasts, the average growth rate will be from 1 to 1.1% per year in the developed regions and from 2.4 to 2.5% in the less developed regions (42).

The speed of demographic growth moulds the demographic structures (particularly the age structure) in a way that is unfavorable to the planning of economic and social development.

In the less developed regions (43), as a result of the high fertility rate, 42% of the population was under 15 years old in 1965, with 3% 65 years old or older; 55% of the population was therefore between ages 15 and 64.

Furthermore, and according to the U.N. experts' predictions, the proportion of the population under 15 years of age may be no more than 40% in 1985; the population aged 16-64 may represent 56% and the proportion over 65 as much as 4%.

43. Economic theory teaches us that a strong population increase may act, at the same time, as an incentive to, and a brake on, economic progress, and, consequently, represent both an advantage and a disadvantage. The favorable aspects of population growth emerge clearly from the analysis of its influences on the demand for investment, influences that have been thoroughly studied by Keynesian and post-Keynesian thought. The essential basis for these currents of thought is the idea that demographic increase brings with it a growth in overall demand, which in turn creates opportunities for investment and hence a higher level of capital accumulation (44).

This analysis, which deals with the repercussions of population growth on investment demand, was worked out to answer the needs of the developed countries, where the major problem is to stimulate the demand for capital. The problems

of capital supply are not of major concern, since it is more or less elastic (45).

44. But the turning of economic analysis towards the problems of the insufficiently developed countries after the Second World War has revealed that the supply of capital is not elastic and that the essential problem does not lie in stimulating investment demand, but rather in increasing its supply. Today, analysis is primarily interested in the effects of population increase on the developing countries' availability of funds that can be devoted to accumulation. More specifically, three types of problems are involved:

- a) what quantity of investment is necessary to maintain the living standard of the population after increase?
- b) to what extent does the population growth reduce the country's capacity to save?
- c) to what extent do the bottom-heavy demographic structures of the underdeveloped countries force planners to destine a large part of resources to building up "human capital" and a lesser part to "material capital"?

A number of calculations (46) have been made in the attempt to estimate the amount of investment necessary to maintain per capita income.

The conclusions to be drawn from these calculations, despite the criticism to which they are open, is that the developing countries must achieve a rate of investment equal to between 7.8 and 12.5% of their national income. The above rate of accumulation is necessary only to prevent a deterioration of the already low standard of living.

To the above difficulty, we must add another, connected with the capacity to save.

In fact, the high mortality rate and the short life expectancy at birth give these countries an age pyramid characterized by :

- a high percentage of dependent persons;
- a low percentage of labor force.

The two above characteristics negatively affect capacity to save, since a large part of the population consumes, but does not produce. Moreover, the high rate of infant mortality prevents many children from reaching working age and contributing to production, thus reimbursing the funds in raising them, educating them and teaching them a trade.

If infant mortality can be reduced, the wasting of important funds can be avoided and a certain increase in the productive capacity of the economy will result.

The reasons advanced to justify this increase can be summed up as follows:

- The low mortality-rate between birth and working age permits the building-up of important "human capital".
- Later, at working age, a decrease in mortality permits fuller use of the "human capital" previously accumulated.

Certain authors (47) think that if the above situation could be remedied, all other things being equal, per capita income might well rise by 20-30% over its present level.

45. In the last analysis, population growth raises the problem of the division of investment between "material capital" and "human capital". The share going to the latter is essentially determined by the quantitative and qualitative characteristics of the population and the relations existing between the two types of capital, in the sense that "human capital" is necessary to build up and use "material capital".

The necessity for this sort of investment and its role in progress are evident, by reason of the complementary relationships existing between this category and the other (material capital). Recently, a number of authors dealing with the problems of development have begun to see insufficient formation of "human capital" as an important element in explaining many manifestations of a very limited capacity for the absorption of capital in the developing countries (48).

The role of this type of investment is primarily qualitative. It is difficult, if not impossible, to evaluate it using any common system of measurement. In fact, as P. GUILLAUMONT points out (49), "human capital" has not only a value similar to "material capital", as a factor of production and progress, but also an intrinsic value of its own, as a source of satisfaction to the man possessing it. Furthermore, its contribution to productivity is associated with the contribution of "material capital", to which all improvements in productivity are usually attributed (50).

46. The need to build up "human capital" raises great problems for planning in the developing countries for the following reasons:

- a) The formation of "human capital" generally requires much more time than the formation of "material capital". Two

types of skills go into making up the mass of investment in "human capital": general skills and special skills. Both require various social expenditures, of which the most important go into teaching and education. On the level of education, all men need a minimum of education, generally corresponding to the elementary levels of schooling. The duration of this schooling, according to the various systems, is from 5 to 10 years. The time necessary to learn special technical skills varies greatly according to the skill, and may go from a month for certain types of technical training, to six or more years for university studies (for example, engineering or medicine). We can therefore say that the basic duration goes from the first year of formation (age 6) to the beginning of working activity (16-21 years). Consequently, the working age is determined by the length of time required for the formation of human capital, and this length of time in turn depends on the nature of man and the limitations of his capacity to learn certain skills in a certain length of time.

Time, therefore, places a limitation on the formation of "human capital". At the same time, the time required for this formation cannot be shortened by increasing investment. The long duration of this formation and its indivisibility necessitate the protraction of spending over a long period in order to create a certain number of skills of a given type.

- b) The second consideration concerns the number of skilled men needed by the developing countries. We could cite numerous examples to show the present and future insufficiency in the formation of "human capital"; but what we are interested in showing is that in general this formation must proceed at a faster pace than the normal rate of increase of the labor force (the proportion of the population between 15 and 60 years of age).

This pace differs according to the various skills and specializations. For example, in general terms, "manpower planning" specialists have established that the formation rate for engineers should be three times that for the general labor force, double for office workers and about the same for administrators (51).

- c) Because of the developing countries' great need for skilled personnel and the long time required for their formation, foreign technical assistance becomes a matter of capital importance. Such assistance aims at making up for the lack of skilled personnel (short-term goal) and at its formation by creating permanent institutions capable of continuing

this formation in the future with local means. Nevertheless recourse to foreign assistance encounters many difficulties, for example, the language barrier, psychological difficulties involved in long stays abroad in a different social environment, the desire for national independence, etc... The limitations force the underdeveloped countries to devote a considerable part of their investments to the formation of "human capital". Even if these difficulties are overcome and the foreign assistance is donated free, the receiving countries must still have a minimum of men sufficiently prepared to be able to profit by it. And this is another reason why the developing countries must direct an important part of investment towards the formation of human material.

47. Finally, heavy demographic growth and defective demographic structures force planners to sacrifice a large part of resources to satisfying the need for housing.

This need is essentially determined by demographic statistics, such as the rate of population increase, its distribution according to sex, its matrimonial status, internal migration, particularly from the rural areas into the cities. People are often surprised to discover what an important part of investment is needed simply to house the population. The experience of the developed countries indicates that this part is between 20% and 30% of total investment (52).

It would seem that the developing countries will have to face a similar situation; i.e. they too will have to devote between 20% and 30% of their total investment to housing. Indeed, this percentage has probably already been reached and exceeded in certain developing countries (53).

The reason lies in the exodus from the rural areas, a well-known phenomenon which often accompanies development, since the latter favors the industrial sector and consequently a process of urbanization. In the underdeveloped countries, the rural exodus seems to reach particularly massive and rapid proportions which are quite alarming since they are not justified by a corresponding economic progress.

48. The part of investment destined to housing limits, to a greater or lesser extent, the possibilities of distributing investment funds among the sectors capable of considerably increasing productivity and those whose contribution to growth is markedly less, not only because this share is high, but also because the housing sector requires a great deal of capital, and, consequently, its capital coefficient is always higher than

the average for the whole economy. In other words, the contribution of this sector to productivity is less than proportional to its share of investment. Consequently, allocation policy in a developing country should attempt to minimize this sector's share of investment in favor to other sectors that contribute much more to total production.

49. Finally, the demographic situation raises problems concerning employment. The problem is to provide work for persons who are underemployed to completely unemployed. And it is also necessary to create additional jobs to take care of the net increase in the working-age population, taking into account the mortality rate and changes in the length of schooling and retirement age.

The breadth and complexity of the employment problem created by a high rate of population growth in the developing regions becomes clear when we consider the conflicts existing between the goal of increasing employment and other goals involved in development on various levels.

For example, the conflict between a maximum rate of growth in productivity and a maximum level of employment underlies the controversy over the allocation of investments between the partisans of "labor-intensive" investments and the partisans of "capital-intensive" investments.

50. Malthusian theory offers the classical example of an attempt to show how an increase in per capita income and improved living standards can produce a population increase capable of erasing the initial advances and throwing the social system back into its primitive state of underdevelopment. The evolution of population figures in the Third World countries seems to confirm this theory. However, population experts agree that the demographic explosion that characterizes the poor countries is not caused by the improvement in living standards. On the contrary, the cause lies in the substantial decline in the mortality rate, and particularly infant mortality, whereas the birth-rate has not undergone noticeable changes. The decline in mortality is not due to better living standards, but rather to progress in medical science and technology and its progressive application in the Third World countries.

Population increase is therefore an autonomous movement, to a large extent; and what is needed is energetic action to lower the birth-rate.

51. To what is a high birth-rate due? Certainly it cannot be attributed to the levels of economic and social development, which are generally very low. We hold that it is due to attitudes towards marriage, sexual relations and the birth of children. But it is not known just how fecundity is influenced by the various social and cultural conditions (54). However, certain measures aimed at discouraging polygamy, delaying marriage, reducing possibilities for divorce and legalizing abortion, etc..., are capable of reducing the birth-rate. An initial reduction in the birth-rate will, after a certain time, have a cumulative effect on the rate of population growth.

The demographic evolution which can now be observed in the developing countries takes place in unprecedented social and economic conditions; for this reason, the demographic theories developed to explain the historical evolution that has taken place in the advanced countries can hardly offer us much in the way of indications for the future. The conclusions we can draw from the historical experience of the industrial countries suggest that the over-all evolution of population growth takes place according to an integral process of interaction among the birth-rate, mortality and migration, on the one hand, and transformations of the socio-economic structure of the population, largely due to industrialization, on the other. In fact, economic development does not follow exactly the same course in all countries; hence the necessity of program aimed at influencing the population and its attitude towards procreation. The inclusion of such a program in development planning is essential, because of the interaction among the economic factors in the proper sense.

In this regard, the traditional macroeconomic models which give so much importance to the formation of physical capital, neglect the less classical factors of growth, which must indeed be invoked to explain the growth of the productivity of labor and capital over the centuries.

It would be necessary to complete these models with a number of details concerning population structure, over and above its dimensions and growth rate. The level of education, for example, explains certain differences in the productivity of labor; it is also frequently connected with variations in the birth-rate. Migration from one sector to another moves workers from the rural to the urban zones and also influences the level of productivity and the birth-rate.

But the present state of knowledge does not permit incorporation into the models of a greater number of those mechanisms through which economic and social development

modifies the regional distribution of the population, transforms its composition by branch of activity, by education level and by profession, and perhaps influences its behavior in procreation. This series of precise correlations will have to be the object of more energetic empirical research before they can be usefully incorporated into the economic-demographic macromodels (55).

Egypt and its Galloping Population

52. The Egyptian population presents the same quantitative and qualitative characteristics found in other developing countries. Without any doubt, these characteristics pose serious problems for Egyptian planners. These problems can be appreciated if we keep in mind the race between population growth and the general standard of living, and the high share of resources that must go to investment in human capital and to creating new jobs. If we examine the numerical evolution of the population, we can say that Egypt provides a typical example of a population in rapid growth, particularly in the period following the Second World War.

Evolution of Population Growth

<u>Year</u>	<u>Population in millions</u>	<u>Percentage of Growth per year</u>
1897	9.715	1.6
1907	11.287	1.3
1917	12.751	1.3
1927	14.218	1.1
1937	15.535	1.2
1947	19.122	1.9
1960	25.018	2.4
1966	30.045	2.6

The fact that draws attention in this evolution is the high rate of growth during the last years. This is explained primarily by the sharp drop in the mortality-rate, not compensated by a comparable drop in the birth-rate.

This strong population increase has thwarted efforts at development, particularly after 1957. In the course of the period 1937-53, per capita income did not register any real increase. On the contrary, it underwent a slight decline. During the period 1953-1966, per capita income grew at a rate of 2% per year.

However, this net increase does not indicate a real improvement in living standards for the whole population. In

fact, the gap between per capita income of the rural population and per capital income of the urban population increases over time. Furthermore, the distribution of national income among the various strata reveals a certain inequity. The average per capital income of the rural population does not reach even half of the average income of the population as a whole. Similarly, certain social strata (the landless peasants and those farming less than one feddan) enjoy only a very small share, far below the average.

What we are really saying here is that the standard of living of the Egyptian population is relatively low and that present efforts to raise it are hindered by a "galloping" population growth, despite the fact that over the last 15 years (1952-1966) there has been a high level of investment, equal to an average of 16% per year.

53. The peculiarities of the birth-rate, mortality-rate and life expectancy at birth of the Egyptian population are such that its age pyramid is characteristically bottom-heavy.

Age Distribution of the Egyptian Population

0-5 years	18.8 %
6-14 years	27.0 %
15-64 years	49.5 %
65 and over	4.7 %

The consequences in terms of need for capital are unfavorable, to the extent that demographic investments absorb a part of available capital at the expense of economic investments capable of directly producing income. Moreover, the high rate of infant mortality means that a part of demographic investment will go into raising children who will never become productive and will thus be lost.

The third demographic characteristic that raises problems for Egyptian planners is the distribution of the population between the rural and urban areas.

In the Egyptian case, the urban population has increased much more rapidly than the total population, and this is normal if we take into account migration from the countryside towards the cities.

Evolution of the Total Population and the Urban Population

<u>Year</u>	<u>Total Population</u>		<u>Urban Population</u>	
	millions of inhabitants	index	millions of inhabitants	index
1882	7.2	100	1.2	100
1914	12.6	175	2.3	193
1937	15.5	216	3.5	292
1947	19.0	264	5.3	440
1960	26.0	360	8.5	710
1966	30.3	417	12.2	1000

Supposing the birth-and mortality-rates for the total population to apply to the urban population, we can assume that almost half the increase in the urban population is due to migration towards the cities. This urban growth has been about 3.7% per year, and, in our opinion, it will increase in the future, since the possibilities of development are limited and what serious efforts at industrialization as are now being made are concentrated around the big cities.

Obviously, this growth in the urban population creates new needs for housing. Satisfying these needs requires the country to pour a large part of its investment resources into residential construction.

Evolution of the Share Devoted to Housing in Total Investment

	<u>1945-52</u>	<u>1953-59</u>	<u>1960-65</u>
In L.E.	27.4 mill.	47.7 mill.	32.1 mill.
In %	37.2	30.2	12.3

The essential thing here is that housing's share in total investment was almost one-third over a long period (1945-59). During that period there was no housing crisis. But when the trend was reversed during the period 1960-65, when the share going to residential construction fell to 12.3%, an imbalance developed between demand for housing, strongly rising because of demographic factors, and supply, which had fallen. This situation has given rise to social unrest which is forcing planners to increase investment in housing.

55. The fourth demographic characteristic which constitutes a serious limitation on freedom of choice in allocating investment, particularly between agriculture and industry, is undoubtedly the density of the rural population in relation to the surface area under cultivation and the possibilities of agricultural expansion.

If we examine rural density expressed in relation to cultivated and harvested surface area, we can easily see that it has constantly increased since 1882 at a rate corresponding to rural population growth.

	<u>Rural density per cultivated feddan</u>	<u>Rural density per harvested feddan</u>
1882	1.28	1.25
1914	1.95	1.33
1947	2.38	1.48
1960	3.00	1.67

The increase in rural density has given rise to heated discussions, particularly over the question of whether Egypt is overpopulated or not. In our opinion, it is difficult to give a clear answer to this question, since it would require a definition of the notion of optimum population. No convincing criterion exists for such a definition, given the number of different circumstances and factors that would have to be considered. Nevertheless, the increase in rural density raises serious problems on the level of the standard of living and employment, and the almost unanimous opinion is that the solution lies in the rapid industrialization of the country.

56. Thus the high rate of Egyptian population growth has shaped the demographic characteristics in an unfavorable way as concerns the problems of development of the Egyptian economy, particularly with regard to investment.

The above demographic characteristics undoubtedly have negative repercussions on the need for capital. These are evident as concerns raising the general standard of living and preventing its fall, ensuring an adequate formation of "human capital" and, finally, dealing with the problems of unemployment and underemployment. The explanation for the population explosion Egypt is now experiencing lies primarily in the considerable decline in the mortality-rate, which has not been off set by a comparable decline in the birth-rate. In fact, the birth-rate has never fallen below 40 per 1000, which is already high, and has indeed shown a tendency to rise. It has risen from 40.1 in 1917, to 43.4 in 1960 to 41.3 in 1966 (56).

57. The situation demands intervention by the public authorities to induce modifications in the birth-rate. Unfortunately, before 1965, the question of birth control was met with hostility in certain circles (the religious circles) and the government's

attitude was hesitant. In 1965, the Superior Council of Family Planning was established, and between 1966 and 1968, the number of clinics rose from 1991 to 2667. An interministerial committee adopted a ten-year program aimed at reducing the gross birth-rate to 30 per 1000 and natural population growth to 1.7% within 1978. Energetic measures to realize this goal have been taken in various fields, particularly in the fields of education and public information.

It is too soon to judge the results of this population campaign. However, since 1967, a constant fall in the rate of population growth has been registered. After a rate of increase of 2.53% in 1966, the rate fell to 2.4% in 1967, to 2.25% in 1969, and finally to 2.03% in 1971 (57).

This fall is essentially due to a fall in the birth-rate, since this fell from 41.3 per 1000 in 1966 to 36.9 per 1000 in 1969.

58. The question is to what is this unexpected demographic development due? Is it temporary, or can we hope that it represents a new phase in the Egyptian demographic "cycle"? To answer these questions we must know the reasons underlying the phenomenon and, more especially, if these reasons are of a permanent or temporary nature.

We feel that underlying this phenomenon are certain factors peculiar to the state of war in which the country has lived since 1967.

In the first place, there has been an increase in military recruitment, particularly among young people under twenty years of age, and this has meant a tendency to delay marriage. The housing crisis has worsened, because of the increased allocation of available resources to the war effort, at the expense of investments and particularly social investments. This housing crisis has also contributed to raising the marriage age, particularly among the urban population.

Secondly, the state of war has meant a general feeling of insecurity for the urban population which thus tends to put off marriage and avoid having children.

The above two factors are temporary in nature, since they are connected with the present state of war. However, it is probable that two other permanent factors are also involved, although to a lesser extent, with the fall in the birth-rate. One is the higher percentage of educated young married women; this percentage now stands at 29% for the urban population (versus only 4% for the rural population). It is highly probable that these better educated young women have accepted

the idea of birth control and thus reduced their fertility. The other is the fall in the infant mortality-rate, which has dropped from 30 to 20%. This situation has encouraged parents to space out childbirth, since the conditions of mortality are such that the probabilities of a child reaching adult age have increased.

In any event, we feel that on the one hand the phenomenon of a declining birth-rate is a temporary event and cannot be taken as the beginning of a new phase in the Egyptian demographic "cycle".

But, on the other, this phenomenon would be an encouraging sign, to the extent that the authorities intensify their family planning program and incorporate it into their next economic and social development plan.

The Realization of Democracy
Through Planning

59. It is a well-known fact that planning involves political choices. These choices concern not only the goals, but also the economic policy measures, which must be compatible with the goals. Moreover, these choices are related to all the stages of planning procedure and to each step in the execution of the plan.

A plan for economic and social development is, by its very essence, a political program.

This point is of practical importance, since it implies that planning cannot be considered an isolated technical exercise, but rather requires political decisions at every stage of its realization.

The process of formulation of a plan must not be conceived as limited to an analytical effort defining desirable and realizable development models, but rather as a veritable social process involving various institutions and mobilizing various social and economic forces. The final result of this process is the development plan, which is consequently the product of a sort of social mechanism conceived for planning.

60. The above is a statement of principle, which we feel must be clearly underlined, since experience shows that the appropriate organization and conduct of the planning process greatly influence not only the formulation of the plan, but also its execution. They can greatly increase the effectiveness of the planning system.

In fact, the experience of the developing nations which have in recent years resorted to planning shows that a considerable gap exists between the plans themselves and their realization. One of the major reasons for this gap lies in the national planning authorities' incapacity in applying economic policy measures compatible with the goals of the plan. This incapacity can in turn be explained by insufficiencies in political and social structure. We know that the political and institutional framework greatly influences the capacity to apply economic policy measures corresponding to the goals defined in the plan, and consequently influences the effectiveness of planning. The political and institutional conditions necessary for effective planning cannot be replaced by a simple perfecting of planning methods and execution techniques. Consequently, the gap existing in many countries between plans and results cannot be remedied by recourse to new planning methods or by placing the emphasis on execution techniques.

61. It is not my intention here to deal with the reforms of political and social structures and institutions necessary or appropriate to effective planning. We intend instead to show how methods and procedures can improve the effectiveness of a plan, on the condition that a minimum of favorable political and institutional conditions exist. The adequate political and social conditions are those that ensure a broad popular participation in the planning process.

The active participation of a large part of the population is necessary from the point of view of effectiveness, because, as we have already pointed out, development requires changes in attitudes towards life and work. The people, once they begin participating in work on the plan, will gain awareness of their low standard of living, but they will also learn how they can improve it and thus react positively to implementation of the plan.

The planning process will help to nationalize attitudes towards greater conformity to modern ideals. The collection and analysis of economic and social statistics and their relations, the political process of discussion, decision-making and implementation, the propaganda surrounding the formulation of the plan, all these things can contribute to changing opinions and prejudices attached to the means and ends of planning. This process involves both the governors and the people, tending to reduce the inhibitions of the former and the obstacles among the latter.

62. But the realization of active participation by the masses requires certain institutional changes in the sense of a decentralization of power to the local government bodies, an extension of the cooperative movement and the development of the trade unions, which are, in both the Western and Eastern countries, the three pillars (59) of popular participation.

In the Western countries, as in the Socialist countries, local government bodies are firmly established and public and private social organisms are capable of promoting their common interests. The cooperatives are in a position to strengthen small production units thus reducing the disparity between such units and the big production units.

The result of development of what is called "the institutional infrastructure of democratic planning" (60) is that each individual can play a role, either through a social organism, such as a trade union or a cooperative, or through a local government agency. Although all these organs are

controlled by a central government, they can exercise considerable influence over all political decisions. These organs are strong, on the one hand, because they represent broad social strata and classes and, on the other, because they are the principal executors of the plan.

In the Western countries, the development of the three pillars of "the institutional infrastructure of planning" was the result of a historical process that preceded planning. The situation in the Socialist countries is just the opposite, since in these countries the creation of the institutional infrastructure has followed planning. The political parties and the States developed the local organisms. The organs of collectivization and the cooperatives became the organs of execution of the plan (61).

Thus we are convinced that to increase the effectiveness of planning it is necessary to emphasize the development of cooperatives, trade unions and local governments, giving them real power in the elaboration of the plan and in control over its execution.

Conclusion

63. In this report, we have emphasized the institutional changes necessary for effective planning. The choice of this aspect of the subject was dictated by the very disappointing experience of the majority of the Third World countries as regards planning. In the course of the past decade, there has been an increasing awareness of the importance of the human factor, since economic planning does not take place in a social vacuum. It cannot be a simple systematic utilization of resources for productive ends. It must be seen as an integral part of a larger process aimed not only at making the most out of resources, in the technical sense of the term, but also at developing human capacities and creating institutions suited at the needs and aspirations of men.

The political and institutional conditions necessary for effective planning cannot be replaced by a perfecting of planning methods and execution techniques.

The disparity existing in many countries between the plans themselves and their realization is primarily due to insufficiencies in the political and social structures. This situation cannot be remedied by recourse to new planning methods or by emphasizing execution techniques.

NOTES

1. GUNNAR MYRDAL, Asian Drama: an Inquiry into the Poverty of Nations, II, Ch. 15, Penguin Books.
2. U.N.O., Planning for Economic Development, New York, 1963, p. 1.
3. Underlying this concept is the idea that every advance in national product in the underdeveloped countries tends to set off forces in the opposite direction that bring per capita income down below its previous level. Rapid population increase is the principal force in this depression, in the sense that every increase in income provokes a rapid increase in population which cancels out the increase in income. For the partisans of this theory, underdevelopment represents a "low income equilibrium", in which income tends to return to its original level after every breakthrough in the equilibrium. Cf. H. LEIBENSTEIN, Economic Backwardness and Economic Growth, Wiley, New York, 1957. See also in the same sense the article by NELSON, "A Theory of the Low Level Equilibrium Trap", A.E.R., May 1956.
4. On this subject, see the study on the movement of capital towards the developing countries contained in our thesis, Importance du Financement Extérieur dans le Développement Economique, étude générale et appliquée à l'économie égyptienne, Thesis, Paris, 1970, pp. 185-222.
5. On this point, see the Ch. of our thesis entitled "Mode de développement et équilibre de la balance extérieure", pp. 371-431.
6. G. MYRDAL, Asian Drama, op. cit. p. 719.
7. The principal differences between these two systems regard the means and methods available to them in executing the plan. In the countries that have adopted imperative planning, planning is carried out through measures such as determination by the central administration of production, investments, foreign trade in certain products, the level of prices and the direct regulation of personal income. In the countries that have adopted indicative planning, the plan must be put into effect following the movement of the market, and its success depends on the degree of exactness with which it adapts to this movement. Only in the public

sector does a tight, direct connection exist between the goals of the plan and measures to obtain them. It is mainly by providing basic means and modifying measures of incentive and discussion that the administration can influence decisions made in the private sector. In certain countries, there is wide spread use of such measures as the licensing system, currency allocation, import controls and rationing of rare materials in an effort to control and guide activities. But the fact remains that the State must depend on private enterprise, however influenced by changes in the incentive system, for development in very important sectors. For greater detail on the different techniques of imperative and indicative planning, see U.N.O., Planification en vue du développement économique, New York, 1965. The first part of this study is devoted to imperative planning as practiced in the socialist countries; and the second, to indicative planning as practiced in various countries with economies based on private enterprise. On indicative planning, see also the articles by R. SHONE, P. WOLF, and P. MASSE in Planning, proceedings of a Conference held at New College, Oxford, 25-28 April, 1962.

8. Cf. U.N.O., Rapport sur la 6ème Session du Comité de la Planification du Développement, New York, 1970, pp. 2-3.
9. Cf. P. CASANOVA, "Amérique Latine: l'impossibilité du développement" Revue du Tiers Monde, April-June 1969, p. 252 ff. See also the issue of Revue du Tiers Monde devoted to the factors preventing or hindering growth and development, January-March 1962.
10. See Planification du développement et intégration économique en Afrique, Report by the Secretariat of the Economic Commission for Africa, Journal de la planification de développement, n. 1, 1970, p. 130.
11. See J. BOGNAR, "Les aspects du développement". Tiers Monde, January-March 1967, pp. 83-93. And also G. MYRDAL, "L'état mou dans le pays sous-développés", Tiers Monde, January-March 1967, pp. 5-24.
- 11a. To give an idea of the size of this problem, total production for Africa increased by less than 3.5% per year during the first 6 years of the last decade. Given a population increase of about 2.5%, the average level of production hardly increased at all. Furthermore, the living standard of the rural population probably dropped a little, since most of the development efforts were aimed at the urban population. See report cited above by the Economic Commission for Africa, p. 129.

12. Two theses are current in this regard. The first is that slowness in agricultural development is the result of insufficient attention given to agriculture within the framework of planning. This means that State investment in agriculture is relatively low, that public policy (as regards taxes or the use of available foreign currency, for example) tends in general to favor other sectors, rather than agriculture, etc... According to the second thesis, it being amply demonstrated that traditional methods of overall national development planning are incapable of predicting and controlling agricultural production, the only solution lies in a separate sectorial plan for agriculture, as for the other sectors. In our opinion, however, the solution to the problem of lagging agricultural development lies in successful modification of the agrarian structures, which are now archaic.
13. According to the forecasts by U.N. experts, this trend, already observed during the 1960's, will worsen during the 1970's. Cf. Examen des tendances du commerce des produits de base pendant les années 60 et perspectives pour les années 70, Report by the Secretariat of the CNUCED, March 1972, p. 39 ff.
14. L. PEARSON, The Crisis of Development, published for the Council of Foreign Relations, Pall Mall Press, London, 1969, p. 101.
15. We are witnessing an unceasing increase in the developing countries' indebtedness. This increase is a consequence of the greater share of international capital movements represented by loans over the past 20 years, but also of the increase of medium- and short-term loans within the total amount of loans. This growth of public indebtedness raises the problem of reimbursement. The capacity to pay back loans will limit possibilities for borrowing abroad, since certain countries have already reached, or are about to reach, the debt coefficient. M. MIKESELL sets this coefficient at 25 or 30% of annual receipts from exports. His estimate is based on the experience of debtor countries during the 1930's. Cf. M. MIKESELL, "The Capacity to Service Foreign Investment" in U.S. Investment Private and Government Abroad, edited by R.F. MIKESELL, Oregon, 1962, pp. 382-383. On this point, see also I.B.R.D., La croissance économique et la dette extérieure, Report presented by the International Conference of Trade and Development, Geneva, 1964.

16. If we take the African continent, we find that there are only three countries with populations over 20 million, and these represent onethird of the continent's total population. The remaining 200 million Africans are divided up into 3 independent States, of which almost 30 have a total population of less than 5 million. The same thing holds for the Middle Eastern States.
17. According to these experts, the developing countries taken together should be able to achieve an average yearly rate of expansion of 3.5% as concerns per capital product during the 1970's. In their opinion, such a level of growth is essential if we are to overcome in the foreseeable future the present trend towards an increasing gap between the developed countries and the developing countries. Comité de la Planification du Développement, Report on the 6th Session, Economic and Social Council, U.N.O., New York, 1970.
18. For more details on these factors, see G. MYRDAL, Asian Drama, op. cit. pp. 1860-65.
19. We shall see further on that this is an imperfect index for defining "underdevelopment" and, above all, that its increase cannot be taken as an index of "development".
20. R. CHELLIAH, Fiscal Policy in Underdeveloped Countries, Allen Urmin, London, 1960, p. 26, shows that the vicious circle idea applies to the supply and demand for capital. B. Higgins applies it to productivity since underdevelopment leads to low agricultural productivity, to undernourishment, to low productivity, to underdevelopment. B. HIGGINS, Economic Development, New York, 1959, p. 271. PAM, DAS GUPTA apply it to the entrepreneur: The Meaning and Reality of Economic Development, Baltimore, 1956, p. 172.
21. Cf. H. LEIBENSTEIN, Economic Backwardness and Economic Growth, op. cit., pp. 96-98. Leibenstein's minimum critical effort gives an explanation for the threshold.
22. This same hypothesis also comes out in the thought of the classical economists who, rejecting State intervention, considered that improvement of the non-economic conditions was inevitable and would be caused by the free forces of the market. Cf. G. MYRDAL, Asian Drama, op. cit. p. 1905.
23. Marx's followers, however, have not followed his optimistic

hypothesis on the rapid and effective transfer of stimuli from the economic sphere to the superstructure. On the contrary, they have directly intervened to change the social conditions, using the State machine to reform attitudes and institutions, rather than waiting for such change to take place through the sole action of the mode of production.

24. The quantification depends on a series of more or less unrealistic hypotheses necessary to arrive at the aggregates evaluated.
25. An example illustrating this distortion is the use of the evolution of national per capita income as an index of change in the social system. In fact, the interdependence of all the factors making up the social system is not such that a rise in national income necessarily entails favorable changes in the other social conditions, and particularly in the area of attitudes and institutions. And even if these changes take place, their dimension is not proportional for the various social strata. We cannot abstract from the distribution of national income; what is more, the heterogeneous collection of goods and services that make up national income depends on attitudes, behavior patterns and institutions.
26. According to G. MYRDAL, the "soft" state is a product of feudal and prefeudal traditions and has been reinforced by the reactions against the colonial regimes and by the liberation movements this reaction has produced. For greater details, see G. MYRDAL, "L'Etat 'mou' dans les pays sous-développés", Tiers Monde, January-March 1969, p. 13 ff.
27. Technical progress thus includes both major inventions and day-to-day innovations. The common factor in these two types of progress are changes in the "inputs" of production. N.K. CAIRNCROSS, Factors in Economic Development, London, 1962, p. 100.
28. H. LEIBENSTEIN, "Technical Progress, the Production Function and Development" in The Economics of Take-off into Sustained Growth, Proceedings of the International Economics Association, edited by W. ROSTOW, London, 1963, p. 186.
29. By determining the share of each factor cooperating in production, it is possible, at the same time, to determine their remuneration. Thus production functions are useful in the area of medium - and long-term forecasting. See the works

of B. MASSEL and M. FRANKEL. See also A. COTTA, Les Fonctions de Production, Doctoral thesis, Faculty of Law and Economic Sciences of Caen, 1965, and F. PERROUX, Tiers Monde, July-September 1967 pp. 679-684.

30. The sense given to the neutrality of technical progress by some post-Keynesian authors was worked out with the intent of realizing a balanced rate of growth with the shares in remuneration of the factors remaining unchanged. Cf. J. HICKS, Capital and Growth, Oxford Press, 1965, pp. 180-182. J. ROBINSON, The Accumulation of Capital, New York, 1966, pp. 159-168.
31. In fact, to use the words of E.D. DOMAR, gross investment is the major vehicle of technical progress: "The Capital Output Ratio in the U.S., its Variation and Stability", in The Theory of Capital, Proceedings of the International Economic Association, edited by F. LUTZ and D. HAGUE, London, 1963, p. 99.
32. For greater details on the behavior of the traditional peasant, see J. KLATZMANN, "Les blocages du développement dans le secteur agricole" Tiers Monde, January-March 1967, pp. 45-56.
33. M. BOSERUP, The Conditions of Agricultural Growth, London, 1965, p. 118.
34. In fact, investment is not stimulated by new mouths to feed, but rather by solvent demand; and population growth brings about a deterioration of per capita income and also shapes the demographic structure in such a way as to increase the proportion of the population dependent on society.
35. On this subject, see the interesting thesis by EL BEBLAQUI H., L'interrelation agriculture-industrie et le développement économique, Thesis, Paris, 1964.
36. Cf. on this point, A.K. SEN, "Choices of Techniques of Production" in Economic Development with Special Reference to East Asia, Proceedings of the International Economic Association, edited by K. BERRIL, Mac-Millan, London, 1965, p. 396; and E. BOSERUP, The Conditions of Agricultural Growth, op. cit., p. 112.
37. U.N.O., Développement par la science et la technique - III - L'Agriculture, Dunod, Paris, 1964, p. 267.

- 37.a Examples of economists who have supported this kind of argument are: SABURO OKITA, "Choices of Techniques, Japan's Experience and its Implication" in Economic Development with Special Reference to East Asia, op. cit.; and G. RANIS and S.C.H. FEI, Development of the Labor Surplus Economy, Yoh University Centre, 1964.
38. D. WARRINER has pointed out that the redistribution of land had another goal than social justice. This goal was political, i.e. to break the strength of the old ruling class of Egypt, recruited from among the big landlords: Land Reform and Development in the Middle East, op. cit., p. 13.
39. Cf. our thesis, pp. 709-729.
40. See in detail the results and bases for our calculations in our thesis, pp. 720-727.
41. During the period 1960-67, the average annual rate of population growth was 2.3% for the developing regions and 1.1% for the developed regions. U.N.O., Situation démographique mondiale - E/CN. 5/456, December 1970, p. 4.
42. U.N.O., Situation démographique..., op. cit., p. 2.
43. In the developed regions, the age distribution of the population in 1965 was as follows: less than 15 years, 28%; 65 years and over, 9%; between 15 and 65 years, 63%.
44. For more details on this point: R. HARROD, "Investissement et population", Révue économique, 1955, p. 365 ff.; L. SHOUKEIR, L'épargne et l'investissement dans la pensée économique contemporaine, Thesis, Paris, pp. 236 ff.
45. We may recall that the decline in population growth was one of the essential arguments of the stagnationist school (A. HANSEN, KNIGHT and others) which based its theories on the lack of possibilities for investment. To explain this lack of possibilities, at least in part, it invoked the population, considered as stationary. See H. GUITTON, "Stagnation at Croissance", Revue d'économie politique, n. 1, 1951, pp. 4, 50.
46. See as examples: A. SAUVY, De Malthus à Mao-Tsé-Toung, Paris, 1958; L. TBAH, "Le problème population - investissement dans les pays sous-développés" in Sous-développement et développement du Tiers Monde, P.U.F., pp. 235-276; H. LEIBENSTEIN, Economic Backwardness and Economic Growth, New York, 1957, Ch. XIV.

47. J. SPENGLER, "The Population Obstacle to Economic Betterment" in Population Theory and Policy, collective work edited by J. SPENGLER and P.D. DUNCAX, Illinois, 1956, p. 306.
48. The most important manifestations are inflation, balance of payments difficulties, and certain social imbalances due, for example, to disparities in development among regions and inequities in the distribution of national income among the various strata of the population. (On this point, see our thesis, pp. 227-245).
49. P. GUILLAUMONT, La capacité d'absorption du capital, Thesis, Paris, 1964, p. 240.
50. Nevertheless, certain attempts to show the role of human capital have been made, either by measuring its contribution to productivity or by establishing a sort of correlation between the level of per capita income and the level of health and education.
51. F. HARBISON, The Strategy of Human Resources Development, Princeton University, 1962, p. 2.
52. For the United States, it was on the average 20.4% during the period 1919-1954; for Great Britain, it was approximately 32% over the period 1870-1954. See C. CLARK, The Conditions of Economic Progress, Mac-Millan, London 1951, Table XII, p. 605.
53. For example, the share of gross national investment going into housing during the period 1950-55 was 31% in Argentina and 33% in Chile. Cf. U.N.O., Etude sur l'Economie Mondiale, 1959, p. 86.
54. Among the variables considered the most interesting for studies of the birth-rate in the African countries, the following have been mentioned: a) the female marriage age; b) the frequency of polygamy; c) the infant mortality rate; d) nursing practices and their influence on amenorrhea after childbirth; e) the instability of marriage. See Commission Economique pour l'Afrique, Rapport du groupe du travail sur les études de la fécondité et l'évolution des programmes de la population, Addis Abeba, 1970, p. 36.
55. The U.N. experts have suggested two complementary viewpoints for the study of the causes and economic and social consequences of population movements: a) a macro-viewpoint that considers how the interaction between the population, its

structure and composition, on the one hand, and overall production and the general process of transformation of the economic structures, on the other, take place; b) a micro-viewpoint that considers how demographic transformations, in the context of social, cultural and economic factors that are outside the family, are reflected in family behavior. See U.N.O., Rapport du comité spécial chargé des programmes relatifs aux aspects démographiques économiques, October 1970, E/CN.9/239, pp. 18-23.

56. Several authors have analyzed the factors peculiar to Egypt and responsible for the high birth-rate. These are of a demographic, social and economic nature. On the demographic level, they have noted the high fertility-rate, which can in turn be explained by the importance of the propension for fertility and the early marriage age both for men and women. On the social level, considerable importance has been attributed to the ease of divorce, to polygamy and the lack of means of amusement. Finally, on the economic level, they have emphasized poverty and the primitive methods of farming which force the peasant to have many children. For greater details, see NOUR MOUSTAPHA, Les rapports entre l'évolution démographique et l'évolution économique en Egypte, Thesis, Fribourg, 1959, pp. 9-20.
57. Al-Ahram, 24 September, 1972.
58. Cf. JOSEF PAJESTKA, "Méthodes et procédures des plans", in Planifications et exécutions des plans, Report presented to the Committee on Planning and Development, U.N.O., New York, 1959, pp. 2-4.
59. See G. MYDRAL, Asian Drama, op. cit., p. 854.
60. Ibid., p. 864.
61. However, centralization of power and planning remain the rule, and consequently influence moves from the top down and not vice versa, thus giving rise to a problem of bureaucracy. The People's Republic of China has succeeded in decentralizing power, since greater autonomy has been granted to local organs, and particularly to the people's communes. This fact has ensured the active participation of the masses in the formulation of the plan. In China, starting at the rank-and-fill level, each unit prepares its draft plan; all these draft plans are then brought together, synthesized and adjusted by a central body, to ensure their harmonization. The outcome of

this synthesis and harmonization is the final plan, which is then handed down to each unit and becomes binding.

On the nature of central decisions and how they are elaborated, see C. BETTELHEIM, La construction du cosialisme en Chine. Maspero, Paris, 1965, pp. 20-31.

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