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COMPREHENSIVE ECONOMIC PLANNING IN GHANA

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General Objectives

An attempt has been made at developing a 20-year perspective plan for Ghana within which to fit the next three 7-Year Development Plans for the country. This perspective plan aims at achieving the following major objectives of economic policy:

(i) Full employment.
(ii) Structural transformation of the economy.
(iii) The building of a socialist form of society.
(iv) Ghana's full participation in a unified African economy.

Ghana is now at that stage of her economic development when the high death rate, especially in childhood, associated with endemic diseases like malaria, has been reduced, but birth rates continue at their previous high (rural) levels; consequently, the population is increasing very rapidly and tending, on the average, to get younger. The 1960 population census gave us up to date information on the location and the industrial and occupational distribution of people. It suggested that the townward drift of the population is continuing, that the whole labour force will grow by about 60 per cent within the next 20 years, and that agriculture continues to employ some 60 per cent of the labour force.

The Government has decided that planning should aim at absorbing all the currently unemployed or underemployed, as well as the prospective addition to the labour force, into full employment. On this basis, it has been possible to estimate the total number of jobs that must be created within the economy, during the whole perspective plan period and during each of the component 7-year plan periods.

The distribution of the labour force between rural, agricultural and other employment is changing under the influence of factors further discussed below. But it is obvious that, without the intervention of deliberate policy, the labour force will remain predominantly agricultural well beyond the perspective plan period. A basic postulate of the perspective plan is that, in Ghana, as elsewhere, average productivity in agriculture will always tend to be lower than average productivity in non-agricultural employment. An important means of securing rapid increasesin per capita output is the shifting of the occupational distribution of the labour force away from agricultural employments towards other forms of employment. This, of course, cannot take place at more than a certain speed. But the perspective plan foresees that whereas in 1960, 60 per cent of the employed labour force was in agriculture, with 40 per cent in food farming alone, by 1980 we could arrive at a situation where agriculture will employ 48 per cent and the share of food farming will have dropped to 30 per cent.

The possibility of achieving such a transformation in the structure of employment arises from the low level of productivity of present day Ghanaian farming. Especially in food farming, the abundance of land and the adequacy of rainfall and warmth mean that relatively easy returns can be obtained by the extension of acreage through mechanization. At the same time, there has, so far, been little scientific research into crop selection and storage problems, and even less into the application of fertilizer. It has, therefore, been possible to plan for the structural transformation of employment and production with a high degree of assurance of success. The perspective plan will pursue the familiar aim of balanced development of agriculture and industry by modernizing the first, including its mechanization, and creating most of the new employment opportunities for a growing labour force in the latter sector.

It is, also, the aim of the Government to secure Ghanaian control of a major proportion of the economy and to give the State itself an overriding voice in the management of all the most crucial sectors of economic activity. This entails a sustained high level of national and State participation in aggregate investment. Ghana has, in recent years, had higher average rates of taxation and public saving than most other developing countries. But public investment has almost entirely gone to infrastructure facilities and social services. The aim now is to allocate a substantial proportion of Government investment to directly productive enterprises, especially in industry, which is now relatively untouched, so that, by the end of the perspective plan period, the State will have the controlling interest in the most dynamic and strategic sectors of the economy. Ultimately, this socialization of the economy is intended to give the State control over the distribution and use of the national product and, also, an independent source of income, beyond the traditional forms of taxation, which will be used in financing the extensive scale of welfare services, which the Government still regards as being, by far, the most important measure of its success.

The perspective plan for Ghana envisages that with the present and prospective size of the home market, and the rate of increase of the labour force, the possiblility of a continued expansion of industrial employment is conditional upon Ghana's early integration into some sort of inter-African trading arrangement. Ideas regarding the nature of such a community, range from a base free trade area or common market, to a tight political and economic federation. But, in any case, it is assumed that the trading prospects in other African countries and, also, the chances of attaining really modern levels of productivity at home are brightest, if Ghana can become an exporter of relatively sophisticated industrial products.

The perspective plan, therefore, envisages a progressive shift in the types of industrial employment to be created, from the relatively simple manufactured staples, mostly for domestic consumption in the early years, to the technologically more advanced industrial product, as much for export as for use at home, by the time of the third 7-year plan.

The first 7-Year Development Plan is conceived as a first instalment in the implementation of these overriding long term objectives. The immediate circumstances which, of course, influence the scope and targets of this first plan point fortunately in the same direction as the long term objectives.

<u>The 7-Year Development Plan 1963-1970</u>

The control objectives of Ghana's new 7-Year Development Plan do not differ from those of the 2nd 5-Year Development Plan, the aims of which were defined as follows:

> We believe that the Plan should show what we have to do - by our own hard work, by the use of natural resources, and by encouraging

investment in Ghana - to give us a standard of living which will abolish disease, poverty, and illiteracy, give our people ample food and good housing, and let us advance confidently as a nation. We want to develop strong basic services - communications, power and water - so that we can provide a real and an effective foundation for the industrialization of our country; and we want to ensure the continued expansion and diversification of our agriculture on which, in the final analysis, all our plans depend.

The Plan, now presented, provides for increased emphasis on the development of Agriculture and Industry.

Although Ghana is and will remain predominantly an agricultural country, the Government is determined to develop to the maximum its potential for industrialization which will not only based on the processing of agricultural products and the exploitation of mineral resources, but on the manufacture and fabrication of all products for which there is a market in Ghana and which will assist in the balance of payments.

But, in 1959, the problem of domestic production of industrial goods was not really a very urgent necessity. The spot price of Ghana cocoa on the New York market in 1958 had averaged 44.3 cents per lb. - as against 20.5 cents a lb. at the present time - and it seemed, then, as if, with a little effort to reduce food imports, Ghana could continue to afford to import all of its requirements for capital goods and most of its manufactured consumer goods as well. Therefore, while there were clear proposals in the 2nd Development Plan for the improvement of infrastructure and social facilities as a contribution to raising the standard of living generally, there were no detailed plans for the expansion of production in either agriculture or industry.

Agriculture, Industry and Trade were, indeed, allocated some 20 per cent of the total Government investments proposed under the 1959 - 64 Development Plan, including 8 per cent for direct Government investment in industry. Much of this money, however, was meant to be used as an inducement to attract private investment. In the field of agriculture, government money was to be used for supporting services to peasant producers, for subsidies to encourage the planting of favoured crops, the elimination of pests, and the introduction and popularization of fertilizer, for the establishment of demonstration farms, for financing partnerships with foreign plantation capital etc.. Similarly, in industry, the emphasis was on facilitating foreign and domestic private investment by loans, contributions to share capital, the provision of ancillary facilities, fiscal inducements etc. Direct government investment was to be concentrated on those activities which were otherwise unlikely to be undertaken by private capital.

By the end of the first year of its implementation, it had become apparent that the 2nd 5-Year Plan was unable to cope with the three most pressing contemporary features of Ghana's economy. In the first place, the Government's own economic policy had swung more decisively in the direction of socialism, with a strong emphasis on increased government participation in, and effective control over the economy.

Secondly, the world cocoa market had entered what was likely to be a protracted phase of secular decline, caused by over-production. The initial impact of this was on the balance of payments, which showed deficits on current account of £11 million in 1959, £33 million in 1960 and £53 million in 1961. The visible components of these deficits were respectively £3.3 million, £14.7 million and £31.4 million. Since expenditure on imported food alone rose from £19 million to £26 million during this period, and expenditure on other simple manufactures, like textiles and clothing, was running in the region of £30 million by 1961, it became apparent, that the answer to the balance of payments problem lay in a forced increase in the domestic production of consumer staples, both in agriculture and in industry.

The other impact of the fall in cocoa prices was felt in government revenues, in which import duties and an ad valorem duty on cocoa, calculated on a sliding scale, are by far the most important elements. The deficit on the Government's accounts grew from £3.5 million in 1957/58 to more than £30 million in 1960/61.

These twin deficits - in the balance of payments and in the government accounts - were financed almost entirely by drawing on the external reserves of the country, which, within the two and a half years during which the 2nd Development Plan was in operation, fell from £173 million to less than £74 million. To stem this drain on the reserves, through import saving, emerged as an overriding consideration in development policy.

The third new feature of the economic situation was the growing problem of urban unemployment and underemployment. Ghana's population is probably growing at around 2.6 per cent per annum. It is a young population - nearly 20 per cent being under the age of 5 in 1960 - with a consequently high rate of dependency and an entirely heavy demand on available resources for the provision of training and new jobs. This problem of employing a growing labour force was precipitated by the success achieved under the First and Consolidation Development Plans, in the field of education and urban improvement. A growing number of literate, but unskilled, youths began to come on to the labour market, just when the great boom, associated with the high cocoa prices of 1954 - 1958, and the consequent expansions in public services, government investment and the construction industry, was beginning to tail off. At the same time, the widening disparity between the striking modernization of urban areas, and the relative stagnation in rural facilities, was reinforcing the traditional urban drift among the able-bodied adults.

Therefore, while the basic aims of planning have remained unchanged, the emphasis and the content of planning have changed significantly. Under the pressure of increasingly less favourable material circumstances, and of a left-ward movement in ideology, the emphasis on industrialization and agricultural development has been further enhanced. Forty-four per cent of the total government investment foreseen, is to be allocated to the directly productive sectors of agriculture and industry, and most of this is to be spent on publicly-owned enterprises within the Government and co-operative sector. The demographic employment situation and the known facts of our degree of dependency on foreign sources of food and manufactured staples, have made it possible to define the economic and production goals of the 7-Year Development Plan, with as much precision as the social and infrastructure targets have been defined in this and the two previous Development Plans. And since the Government has been assigned a large part in implementing these targets, it is hoped to be able to programme investment and production in a way not hitherto possible.

Planning Production

1. Food: Ghana's food deficit, at existing incomes and prices, is measured by the trend in food imports up to the end of 1961, when such imports were unrestricted. The starting point in defining production targets for agriculture, was to aim at eliminating the known tonnages, now being imported, of those things that can be grown easily at home - rice, sugar, corn, most vegetables and fruit, meat and fish. This approach was, however, considered insufficient, in view of the known dietary insufficiencies among certain segments of the population. Nutritional "norms" have, therefore, been established, and from these, aggregate requirements for the different types of food, based on population projections, have been derived. The requirements have been further distributed among individual food products, on the basis of practical as well as nutritional considerations. There has, thus, been built up an ideal food supply target, specifying both tonnages and, by the application of average yields to these, in appropriate cases, acreages for all the principal food products.

Production targets for the 7-Year period have been set on the principle:

(a) that net food imports shall be largely eliminated by 1970, and

(b) wherever practicable, output should cover ideal requirements by that date.

What is practical is further defined, with respect to technical and financial considerations. The measures needed for the realization of these practicable targets of food supply, have been further translated into extensions of acreage and increases of water conservation, distribution, research etc.. The tasks are then assigned to the three farming sectors - co-operatives, State farms and individual producers - and the appropriate Government agencies.

2. Agricultural Raw Materials and Exports: It is not expected, even though the pattern of industrial production should shift increasingly towards technologically more advanced goods, that the Ghana economy will attain any measure of self-sufficiency in capital goods, within the foreseeable future. Given the existing availabilities of land and agricultural labour, however, it is possible to plan on being able to finance all the necessary imports of capital goods through export earnings. In addition, domestic agriculture is expected to produce almost all the agricultural raw materials, required by the industries to be established in the early part of the industrialization programme, most of these being directed at import saving.

Because of the notorious uncertainty surrounding the future of demand for agricultural commodities in the industrialized countries, it has been necessary to plan so that a substantial part of the required increases in export earnings should be obtained through increases in unit values, as against increases in volume. This might be achieved, for instance, by industrializing a higher proportion of agricultural and other exports. The prospects of this, of course, depend upon the willingness of the industrial countries to admit such industrialized exports from Ghana, and other countries similarly placed.

The foreign trade aspect of planning is further discussed below.

As far as production is concerned the position can be summed up as follows: targets of agricultural production for export and for domestic industries are set respectively with regard to the foreign exchange requirements on the plan, the economy as a whole during the plan period, and the estimated intake capacity of domestic industries.

3. Manufacturing: As already mentioned, the size of the Ghana market is such, that the second stage of industrial development will be conditioned by the extent to which a large regional market in Africa can be formed, to support the local production of advanced industrial goods. In the first 7-Year Plan, however, the objectives of industrial planning are simpler and easier to attain. They are, firstly, to replace the manufactured

staples, at present imported, by domestically produced substitutes to the maximum extent possible. Secondly, to increase export earnings by industrializing, as much as possible, the present raw material exports. And thirdly, to lay the basis for the future industrial economy by developing basic industries like metals, chemicals and building materials.

For each line of consumer manufactures, we have fairly complete information on demand, since such goods have, hitherto been supplied through imports. The major problem in planning local production, is to select those lines where the returns will be greatest, or the net savings in foreign exchange most significant - or, of course, both. For, it is obvious, that there will still be considerable room for import savings on these simple manufactures, after all the investment that can be feasibly foreseen under the first 7-Year Plan. The other proplem is that of timing. Many of these manufactures will be in the area of processed and canned foods. The establishment of factories must, then, be geared to the relevant farming or fishing programme.

Some of them, too, will consist in the processing of non-food raw materials, e.g. textiles, and, in some of these cases, net foreign exchange saving and intrinsic profitability might indicate the starting of manufacture, in advance of the establishment of adequate local sources of raw materials.

The industrialization of exports has much wider significance than its contribution to the industrialization of the country, since the foreign exchange bottleneck has a great impact on the likely pace of progress. The technical problems involved do not impose many limitations on the rate of such industrialization. Marketing problems, especially those arising from tariff and other barriers, are playing a more important role in the selecting of projects in this area.

Basic industry is, of course, closely tied to local natural resources, with the important exception of petroleum refining. Among the indicated industries are iron, steel, feromanganese, aluminium, salt-based chemicals, petrochemicals, limestone and cement, and constructional hardware.

Capacities, in most cases, have to be related to technical and export market considerations, rather than those of domestic consumption, so that the problem arising from the mutual isolation of Africa's national markets, as well as the trading policies of the industrial countries, are already very relevant in the planning of these industries.

The whole of the industrialization programme is framed subject to the constraints of the availability of capital and management. As far as the first is concerned, the claims of agriculture and industry, as against the social welfare and infrastructure investments, have been given priority at all times, as well as being reflected in the allocation of a higher proportion of total government investment than under previous development plans. As mentioned above, an attempt has been made to establish what is regarded as a more viable relationship between the productive and non-productive investments, and to give the State both a greater degree of participation in and control of the economy, and an independent, probably more reliable, source of revenue. However, while it is intended to generate enough budgetary surplus to finance all the social and infrastructure investments under the 7-Year Plan, the industrialization programme is more heavily dependent upon the availability of foreign credits, which are generally, expected to be supplied together with management services. Most of the foregoing relates to public industrial investment. In the field of private industrial production, there has so far been little planning. In this sense, we have not yet reached a stage of fully comprehensive planning in Ghana. But, on the basis of a projected industrial census and a survey of private manufacturers' present intentions, it is hoped to make projections of contribution of the private sector to industrial investment and production under the 7-Year Plan.

4. Social Services and Manpower Planning: Planning in these sectors is dominated by certain policy decisions already made by the Government:

(a) Primary education has been compulsory since 1961.

(b) Compulsory middle-school education is to be implemented within the 7-Year Plan period, and an approach made towards universal secondary education.

(c) Health services, at a reasonable minimum level, are to be provided for the whole population, within the shortest possible time.

(d) Citizens of Ghana are entitled to adequate housing, water and electricity supplies.

In planning for the realization of these welfare objectives, financial and personnel considerations are the only relevant constraints. The 7-Year Plan should ideally set targets in these fields, on the basis of residual resources available, after allowing for capital formation and private consumption. In practice, of course, this cannot be done until comprehensive planning has been in force for a number of years. For the immediate plan period ahead, social welfare expenditures have to be provided on the basis of existing commitments, subject only to the condition, that productive investment has priority in the claims on funds.

But the projected investment programme itself, of course, carries with it certain requirements - in skilled manpower, water, electricity - which are not encompassed within the social welfare programme objectives of the Government in these fields. In Ghana, a survey of the higher level manpower position was prepared in 1960, and has been revised in connection with the new 7-Year Plan. This has quantified the degrees of shortage, overall and by occupation, and formed a basis for allocating the output of the secondary schools among the different branches of higher education, according to a rational formula. But, it is apparent, that the formal educational system could not possibly produce enough people to meet the manpower requirements of the economy in the next several years, and other methods have to be used for alleviating some of the shortages. Firstly, an extensive system of management training has been instituted, with a view to reducing the quantitative shortages of managerial personnel, by improving the capacity of existing personnel. Secondly, some increase in the supply of management personnel is to be made by in-service training of junior administrative and of technical personnel, in the techniques of management. Thirdly, it is, also, planned to up-grade the technical efficiency of the existing corps of higher level manpower, so that the most critical shortages in the higher levels may be alleviated by rapid promotions, without undue loss of efficiency.

In allocating a given sum of development funds to the different forms of education and training, it becomes necessary to balance the claims of such immediately useful forms of education against those of the more generally "welfare" forms. Similarly, conflicts arise in the claims of large urban areas vis-a-vis those of the sites of particular industrial and agricultural activities, for the provision of services like water, electricity, and transport. So far, in Ghana, this sort of problem is being resolved on the basis of pragmatic considerations, with the services being treated both as general welfare provisions and as tools of economci development, where supply must be subjected to rational planning.

5. External Trade: As indicated before, Ghana's exports will, for a long time, remain the source of most capital goods, while the present 7-Year Plan is being drawn up under the shadow of a critical balance of payments situation. The immediate impact of our ambitious investment programme will, of course, be to worsen this balance of payments position, by increasing the demand for both imported capital goods and imported consumer goods. An attempt has been made to estimate fairly accurately the full import effect on the investments, and the consequential increases in incomes.

A special aspect of this exercise consists in keeping up-to-date accounts of the yearly debt service liabilities where the imports of capital or consumer goods have been obtained on credit. Most of such credits are being granted to the Government itself and the debt service problem appears as one of balance in the public finances, as well as of balance in the external payments. Some of the repayments have to be met by barter exports of particular commodities to certain non-convertible currency areas, and these entail special coresponding export plans.

The full estimated import requirements for each year of the plan period are to be met either

(a) By current exports, or
(b) by the use of existing foreign exchange reserves, or
(c) by obtaining foreign credits, or
(d) by producing domestic substitutes.

The importance of import substitution as a criterion in selecting agricultural and industrial projects has previously been dealt with. It is only necessary to note that, at the current low levels of average real incomes in Ghana, the commodities with a high income elasticity show this high income elasticity for a very large proportion of all the income groups. This means that there is room for the expansion of a limited number of staple lines to a very large scale of production, before anything like saturation point is reached and, conversely, that the diversification of the structure of consumption, though patently going on all over Ghana, does not, in general, justify a corresponding diversification of consumer goods production for a considerable period ahead. Much more important will be enterprises up-grading the quality of the given staple lines, e.g. processing, refining and packaging foods, the more elaborate printing of textiles, etc.

The first sizeable foreign loan obtained by the Government, since the pre-depression years, was the Volta Project loan secured in late 1961. Before then, all government investments had been financed out of current budgetary surplus and, latterly, accumulated reserves. More recently, the Government has embarked on a more purposeful search for foreign credits. In any case, it is obvious that, starting from the present unfavourable budgetary position, the only way to finance anything like a reasonable level of investments is to try and obtain sizeable amount of credit. Since the domestic supply of loanable savings is small, and the greater part of the investment goods have to be imported, the bulk of such credits has to be raised overseas. The highly successful results of the first essays in foreign borrowing have enabled the development plan to be framed, on the assumption that nearly 40 per cent of total government investment can be financed by foreign loans and grants.

Credit-financed imports, of course, require certain immediate foreign exchange payments - in downpayments, commissions, etc. A more difficult feature of credit financing, however, is that it fixes the future foreign exchange liabilities in a rigid way, as compared to cash purchases of imports which, in principle, can be postponed at any given moment, in the light of the balance of payments situation.

It has proved particularly tricky to assure the country's ability to meet its foreign payments liabilities at any particular date during the 7-Year period. This is because the exports, which will provide the foreign exchange, are subject to wide random fluctuations in volume under the influence of weather changes, and have an unstable foreign exchange value at any given moment depending upon price fluctuations, which are not yet compensated by any international commodity stabilization system.

However, an attempt has been made to plan exports ahead, both for purposes of the balance of payments and of Government revenues which depend, to a considerable degree, on export unit values and volumes. It has been mentioned already, that the improvement of export unit values, through the higher processing of export commodities, is a major object of the industrialization programme under the 7-Year Plan. For the rest, projects have been made for the possible increase in volume of exports of various items.

It is apparent that, at best, the foreign exchange position will be just manageable in the course of the 7-Year period and might enforce some changes in the planned investment programme. A foreign exchange committee has been set up, to manage the external aspects of the 7-Year plan. It has the duty of determining the policy to be followed in the administration of import licencing, of supervising the implementation of the export programme, and of generally husbanding foreign exchange resources. It is intended that these functions will be performed through the formulation of six-month foreign budgets, which will be formally adopted, from time to time, by the Government.

METHODS OF CO-ORDINATING PLANS

6. <u>Overall Co-ordination</u>: Both in the perspective plan and in the 7-Year Plan, a cardinal aim has been to maintain what is considered a more viable relationship between, on the one hand, productive investments as a whole and, on the other hand, all non-productive investments. For it seems that the reason whey, despite ten years of a very high rate of saving whatever the standard, the economy remains basically weak, is that such a relationship has not been maintained in the past. Thus, while Ghana has

the largest artificial harbour in Africa, perhaps the best road network, and certainly one of the more advanced educational systems, industry and agriculture have tended to lag behind in making use of these facilities, and employing the growing literate labour force.

This lack of balance has not been the result of deliberate policy under previous development plans - quite the contrary. As previously indicated, the expectation under these plans has been that the government's investments in infrastructure and social facilities would be matched by private, government-induced, and purely public investments in directly productive enterprises, on a scale that would achieve some balance in the structure of investment. By the nature of the situation, the relationship between these two sectors has not been quatifiable, and there has, therefore, been no yardstick against which to measure the economic success of the previous development plans.

Since, on the whole, the rate of productive investment has failed to keep up with the rate of non-productive investment, and, also, since the Government is moving towards a greater participation in economic activity, the aim is for a balance between productive and other investments in the Government's own investment programme.

What sort of balance this should be has had to be determined on the basis of two main criteria. Firstly, the process of modernizing the social plant of the nation cannot, of course, be arbitrarily halted. It has therefore been necessary to allow, on the basis of demographic and other general rational considerations, as well as on the basis of existing commitments in this field, for certain projected minimum investments in infrastructure and social facilities. As previously indicated, only a part of this investment has been geared to the requirements of the development programme itself, though the location of facilities and the timing of their construction have generally been susceptible to planning considerations. It has, then, been necessary to seek a minimum level of productive investment by the Government that would bear an appreciable ratio to the anticipated non-productive investments.

Secondly, certain basic targets in agricultural and industrial production have been identified, whose implementation will not be left to the chance that private investment will be available or that a government corporation, with the freedom to choose, will, perhaps, decide to go into those lines. These have, also generally been enterprises of a strategic nature, where the Government's participation gives it a lever for influencing or inducing development in a number of other sectors, or for controlling the short-term movements of domestic prices. The total productive investment programme of the Government is, of course, set at a higher level than this minimum, as it is intended to take advantage of any commercially attractive opportunity for the Government to share in meeting the requirements of projected demand, or to contribute to the expansion of employment opportunities.

7. Co-ordination of Projects and Branches: Within the broad group of non-productive investments, a system of allocating the total sums available, on the basis of calculated ratios of the shares of the different branches, has been worked out for different types of community, and applied on a national scale. The result is an idealised map of the economic geography of Ghana, projected for 1970, on the basis of the known natural and agricultural resources and population movement. This has been used as a reference, against which to adjust the respective demands of the different plans for elements of infrastructure and social services, put forward by the various executive agencies responsible for these services.

There seems to be considerable merit in this procedure of breaking down the overall development programme into its components, viewed as the development of a series of "communities", whether these be cities, metropolitan areas, natural rural districts, or the new Volta Lake basin further discussed below. Because, even though the aggregate volume of non-productive investment may not be closely related to the needs of economic development in any strict proportionality, the location and the timing of the construction of such facilities can be made to conform closely to the location and the time pattern of agricultural and industrial activity. Since bottlenecks connected with the inadequacies of social overhead can still be a major impediment to the growth of economic activity, even in a relatively more favoured country like Ghana, this process of package-planning for communities affords a most convenient method of plan co-ordination. It constitutes a tool for, on the one hand, anticipating demand for such services as water and transport, whose gestation period may be longer than that of the projected industrial or agricultural activities, and, on the other, for avoiding mistakes in the location of economic activity. It is notoriously the case that a new planning apparatus, such as we have in Ghana, cannot be relied upon to anticipate all the requirements of planned industrial and agricultural enterprises, especially so, when such projects are prepared by expatriate technicians, who tend to assume the existence of all the necessary services wherever they may choose to locate their projects.

This approach may be considered a first crude approximation to planning based on input-output methods, the inter-sectoral relations, which are taken into account, being only those between local groupings of productive enterprises and the requisite infrastructure services. Except for the more obvious relationships between agricultural and industrial raw materials, and the respective processing industries, and those between the general level of activity in an area and the provision of, for example, mechanical repair and maintenance services, other inter-industry relationships are relatively unimportant as determinants in present planning. This is partly because, in the absence of comprehensive industrial surveys, the nature of the relationships are at present unknown, and partly because, the present structure of industrial activity being relatively simple, there has seemed to be no great merit in formulating and use of making elaborate guesses regarding inter-industry relationships in Ghana.

The basic criteria for choosing industrial projects have already been indicated above: pay-off period, net foreign exchange saving, net additions to national income and employment, contribution to export unit values, and export quantum. There has, also, been an element of conscious preparation during the first 7-Year plan for the sort of industrial economy foreseen for Ghana in the longer run. For this purpose, particular attention has been paid to metals, chemicals and electrical industries with a small essay, also in the machine industries.

It has not been possible to project the national income, in any detail, over the period of the 7-Year plan, partly, because even now, information regarding the industrial origin of the national income remains rather deficient. Checks for consistency have only been possible on a broad scale, indicating particularly what rate of increase in private and government consumption is feasible, and what growth rate, as a whole, would be consistent with the balance of payments prospects at present foreseeable. The feasible increases in consumption would indicate broadly the sort of incomes policy that must be followed during the plan period. The detailed distribution of the allowable increases in personal incomes must, of course, be determined on the basis of relative shortages of different types of workers, and the readjustment of existing distortions in the wage structure. Government consumption has, obviously, far outrun taxable capacity in recent years, resulting in increasing budget deficits and dwindling Government reserves. Certain further increases in public consumption expenditure are inevitable, as previously explained. But a general presumption of planning for the next 7 years has been, that the existing level of social services is under-utilized in terms of the volume of economic activity which it could support, and that a good deal of economic expansion could take place without any need for corresponding increases in social and administrative services. Hence, the extension of such services, except as demonstrably required for purposes of implementing the plan itself, should be kept to a minimum.

The balance of payments indicator has already been referred to, in its roles both as a tight constraint on the total demand that can be tolerated for many years to come, and, hence, on the rate of economic growth itself, and as a criterion in the selection of industrial and agricultural projects.

8. Regional Disaggregation: As indicated above the agricultural targets of the 7-Year plan have been broken down into targets for each operational district, usually coexistent with a local government area, and the planning of physical facilities has also been influenced by a community approach. There is, however, a rather more special element of regional planning in the 7-Year plan, which is likely to extend also into subsequent seven-year plans. This is the Volta basin development, connected with the

imminent creation of a gigantic artificial lake, which will create, an entirely new geographical region, and span the country with a new south-east to northwest transportation route, while cutting many at present major routes on the opposited axis.

The Volta Lake problem presents three parts for planning purposes. Firstly, nearly 70,000 people must be resettled out of the areas to be flooded. The establishment of new vialbe communities in a short time, and the integration of others of the displaced people into existing communities has had to be treated as a special crash job. Secondly, there is the equally urgent task of constructing alternative lines of communication to replace those that will be disrupted by the lake.

But the creation of this large lake area has, also, provided the opportunity to plan for the economic development of a large area of the country, which was previously very sparsely inhabited and relatively un-exploited. This Volta basin now possesses the twin advantages of cheap transport and unlimited amounts of water for agricultural and industrial activities. Besides, the lake itself will extend to within short distance of so many major natural resources - including major deposits of bauxite, limestone and iron ore - that it will attract to itself a considerable amount of traffic, that would otherwise move by rail and road. Then, there is the potential of the lake itself as a source of fish - a commodity which is expected to provide most of the increases in protein, required under the first 7-Year Plan.

Owing to its special position, therefore, the Volta basin has featured initially as a large separate element to be incorporated into the new plan - it has also, of course, been in preparation for a much longer period, at least as far as the lake formation, power generation and resettlement aspects are concerned. But the proportion of the country affected has been so great, and the impact of Volta electricity on the energy situation will be so great, that it has not actually been possible to preserve its character as a regional plan - the relations of the Volta with the rest of the country are much more important than the relations within the Volta Lake basin.

Thus, as indicated above, the lake is being incorporated into the national transport network rather than serving the internal economic relations within the basin. And most of Volta electricity will be consumed outside the region. In fact, in the matter of electricity the change in the power situation of Ghana, before and after Volta is operational, will be so radical that, for instance, national industrial planning has to treat this factor as a watershed, around which to date the instroduction of such relatively heavy projects as metals and chemicals. It would, also, seem that the choice of industrial technique and the development of such elements of private demand, as that for durables, are bound to be significantly affected, especially so, since the cost of power is likely to be appreciably reduced, although no sophisticated appraisals have been made on this aspect of the matter.

FINANCIAL PLANNING AND ECONOMIC POLICY

While the overall investment projections and, hence, growth targets for the economy have been based on national accounts calculations, both for the perspective and 7-Year planning, the actual Government programme for the 7-Year plan has had to be fitted into our best estimate of probable budgetary surplus and foreign loans to the Ghana Government. Since Government has aimed at taking a substantial part in the development of productive enterprises, the necessary minimum of government investment resources has had to be set very high - at a minimum of 40 per cent of the total investment in the economy during the 7 years. Taking a realistic view of the probable volume of internal and external loans, it has become apparent that, even if government consumption expenditure is allowed to grow at only the barest possible minimum rates, Government revenues at extrapolated yields would be quite inadequate to provide the necessary budget surplus.

Financial planning has had to go a step further, and propose policies for increasing Government revenues by substantial amounts. In current Ghanaian terms, this has meant seeking larger export earnings and not values, and ways of increasing consumption taxes, and of widening the personal tax net, as well as making it more effective. The importance of industrializing Ghana's exports from the balance of payments point of view has been previously discussed. Its importance as a means of raising Government revenue is no less. In general, the raw materials of Ghanaian exports are produced in small scale agricultural and industrial enterprises, using only a small proportion of purchased inputs. A stable and ordinarily remunerative price level has been found, through the experience of the Marketing Board system during the past 20 years, to be most effective in calling forth steadily increasing supplies. High unit prices on export markets provide a windfall gain, which can be skimmed off, as the easiest form of taxation applicable to the many small producing units. It is, also, the experience of recent times that the industrial derivatives of our primary products maintain their market values much better than the latter. Taking into account the known unit costs of turning primary into manufactured goods, these industrial exports tend, in effect, to achieve higher implicit export unit values than the primary products when they are exported raw. Therefore, industrializing Ghana's commodity exports to a higher degree would substantially increase effective tax capacity, even apart from the direct income effect of such industrial enterprises. Even for mining, whose organization and capital tends to be so much larger than those of production units for other commodities, the effect of industrialization on increasing export unit values and taxable capacity seems to be well established.

The present structure of personal taxation in Ghana is so restricted in its coverage, and incomplete in its practical application, that it needs urgent improvement in order to make it more effective as a tool for controlling the level of effective demand, and as a source of revenue for development. Changes in taxation have, therefore, been built into the financial planning, as an integral part, though, naturally, the exact timing and scale of modification remain a matter for annual budgetary decision.

With these two sets of measures - export up-grading and tax reform - supported by the existing import and foreign exchange controls, the Government should have a full set of weapons for managing the balance of payments situation, and keeping the total demand on resources within the limits of available supplies. But the Government, both under the 7-Year and perspective plans, will have the major task of stimulating the volume of private investment required, in order that the economy may move at anything like an adequate rate of growth.

As is well known, a large part of economic activity in Ghana is carried on by small enterprises, and in a large series of small local "economies". Although the degree of modernization is more complete here, and in other developing countries, than writers on economic development would like to believe, most of this activity is carried on without any sort of accounting record, and a large part of net incomes will not be available to taxation for many years yet. This puts a brake on the rate at which resources can be transferred into the hands of the Government and, hence, on the feasible speed of socialization in the absence of massive nationalization. Therefore, while planning for an increasing degree of government participation in economic activity, in line with the overall socialist objective, and promoting especially government investment in the most strategic sectors, it is necessary to plan also for a large contribution from the private sector to aggregate investment.

This problem divides itself into two dissimilar segments. Firstly, for the domestic small investor, whose fields of investment are mostly in farming, housebuilding, construction, road transport and trade, there are needed policies mostly in the nature of technical assistance, especially in management matters, and of credit to stabilize the course of their operations. As has already been indicated, the linchpin in the whole strategy of long run development and structural transformation of the economy, is the planned improvement in farm productivity. This will depend on our success with scientific research on crops, seeds and fertilizer, with conservation and irrigation, with the provision of facilities to enable the small farmer to apply mechanical power in increasing his acreage, with transportation and credit, and, above all, our success with agricultural education and extension. But the farmer will not adopt the available means for increasing his productivity, unless acceptable marketing arrangements for his crops are made. This means mostly reducing the very wide seasonal fluctuations in prices that, at present, keep his income low and uncertain, and guaranteeing him an assured market for his produce, especially during the harvest season.

A beginning has been made with the setting up of a food marketing organization to handle the major domestic crops. Among the most tricky problems facing such an organization, is storage, rapid market intelligence and fast movement of produce. But these have got to be overcome at least for the major food items, for which the plan is setting targets, whose attainment will be crucial for its success. This food marketing system, if effectively implemented, will also yield two important side results. Firstly, the ability of farmers to service loans will be much enhanced. Since it is impossible for the State to make large capital grants to agriculture, which is, by far, the largest contributor to the national income at present, most of the small farmer's investment needs will have to be financed on a commercial basis. It is vital, therefore, that his income be stabilized to the extent that he can confidently go into debt. Secondly, we should, through such participation in food marketing, obtain the means for reducing and stabilizing food prices. At present, the inadequacy especially of the wholesale storage function means that, in season, food is so plentiful that there is practically no acceptable price that will clear the market, while, in the off season, price-rises put a severe strain on the wage structure.

The native Ghanaian's second favourite form of investment is house-building. But the facilities for mortgage and other forms of credit are very limited. Besides, there are numerous problems connected with property ownership and succession. The classical problem of land title is not really as important as these, and policies measures have to be devised for dealing with them early in the plan period. It is obvious that public housing will remain a minor element in housing supply, and these credit and legal measures will be needed in order to avoid continued increase in rents, which, with high food prices, constitutes the greatest threat to monetary stability.

The other segement of private investment concerns the bigger investor in manufacturing, wholesale trade and technical services. This type of investor is often non-native, and is much more sensitive to taxation and control policies, as well as to what is called the business climate. As previously indicated, Ghana, along with other developing countries, relied, until recently, upon the attractions of tax and other inducements - with not too satisfactory results. The corollary of embarking upon a more positive role for planning and for state economic activity, is that the Government has to lay its hands upon an increasing share of the available resources, to finance the requisite investment. Since organized large scale business is the major source of direct tax revenues - although in actual fact most government revenues derive from indirect and export taxes - there is always the possibility that private investors will resist such taxation. In planning for a transformation of the structure of production and employment, it is necessary to look to new private investors to develop the new types of activity which is unattractive to, or lies outside the managerial and economic horizon of existing investors. But such new investors, limited in number and in the amount of capital they annually make available to the developing countries, and having the option of directing their investment to any one of scores of countries, are even more capable than existing investors of resisting taxation. Also, without the personal knowledge of a country's position which the latter possess, they are particularly susceptible to the most intangible elements - stories, impressions, general political prejudices - in the investment climate.

In the case of Ghana, in particular, it is proving an extremely delicate problem to devise a set of policies that will, both allow the Government to implement its socialist objectives, and, at the same time, not prove an undue deterrent to the new private investor. The question of nationalization is especially tricky since, even with the best of assurances, foreign investors, who tend, on the whole, to be very cautious in their calculations, are not easily persuaded to dissociate socialism from expropriation, or even nationalization. No solutions have yet been found which can be considered really satisfactory, and, perhaps, this will remain for some time the unsolved question in African political economy.