

UNITED NATIONS

ECONOMIC
AND
SOCIAL COUNCIL



GENERAL

E/CN.12/584
18 April 1961

ENGLISH
ORIGINAL: SPANISH

ECONOMIC COMMISSION FOR LATIN AMERICA
Ninth Session
Santiago, Chile, May 1961

THE EXPERIENCE OF THE ADVISORY GROUPS AND THE PRACTICAL
PROBLEMS OF ECONOMIC DEVELOPMENT

CONTENTS

	<u>Page</u>
GENERAL INTRODUCTION AND PURPOSE OF THIS REPORT	vii
I. THE PROGRAMMING OF ECONOMIC AND SOCIAL DEVELOPMENT AND INTERNATIONAL TECHNICAL CO-OPERATION THROUGH THE ADVISORY GROUPS	1
1. Nature of the programming process	3
2. Basic programming elements	4
3. The time element in programming	5
4. Need for stronger government machinery for analysing, programming and deciding on economic policy	6
5. Current public administration problems in meeting the requirements of a programming process	7
6. Nature of the new form of United Nations technical co-operation through the advisory groups	11
7. Composition of the advisory groups	14
8. Modus operandi of the advisory groups	14
9. The work plan of the advisory groups and the problem of starting a programming process	15
10. Analytical and programming work undertaken in countries with the co-operation of the advisory groups	17
(a) Colombia	17
(b) Cuba	20
(c) Bolivia	20
II. THE PROGRAMMING OF GOVERNMENT ACTIVITIES	23
1. Previous recommendations by the United Nations	25
2. Need to change the budget machinery for programming purposes	26
3. Analysis of the activities of government bodies and the new budgeting techniques	28
(a) Criteria for the definition of activities	33
(b) Criteria for the grouping of activities	33
(c) Administrative responsibility	34
(d) Levels of co-ordination and programming	34
(e) Functional relationships in programming	35
(f) The effect of the activities of government agencies on the rest of the economy	35
(g) Systematization of concepts	36

	<u>Page</u>
4. Programmes and performance budgeting	37
5. Advantages of the new techniques	39
(a) Efficiency of the public administration	40
(b) The formulation of tax policy	40
(c) The programme budget as a planning instrument	41
6. Stages in the introduction of programme budgeting	42
7. Changes in the mechanisms for the formulation, execution and control of budgets	45
(a) Budget formulation mechanisms	45
(b) Budget execution mechanisms	48
(c) Budget control	51
8. Reorganization of the budget offices	53
III. ADMINISTRATIVE STRUCTURE FOR PROGRAMMING	55
1. Relations between administrative structure and programming	57
2. The conception of central co-ordinating agencies and decentralization of the preparation, implementation and supervision of programmes and projects	58
3. Relations between programming, statistical and budget offices	61
4. Structure and position of the central and sectoral programming offices	63
IV. DIAGNOSIS OF PUBLIC INVESTMENT	65
1. Technique of public investment programming	67
2. Importance of a sound diagnosis of public investment	68
3. Overall diagnosis of the level of public investment	69
4. General analysis of past trends in public investment	70
5. Distribution of investment by destination	72
6. Distribution of investment and capital by area	76
7. Historical analysis of investment by administrative jurisdiction	77
8. Extent to which the deficit in social services has been made up and identification of government policy	82

	<u>Page</u>
9. Analysis of financing of public investment	87
(a) Financing of public investment	87
(b) Analysis of financing by administrative units	93
10. Utilization of goods, services and factors of production .	93
11. Operational capacity and the efficiency of administrative units	96
12. Analysis of projects being carried out and determination of the funds committed	97
13. Current policy, objectives and plans of departments	106
14. Machinery for the preparation, application and supervision of public investment programmes	106
V. SOURCES OF INFORMATION FOR THE DIAGNOSIS	107
1. Data and sources of information	109
2. General diagnosis of the economy and development programm- ing	109
3. National accounts	110
4. Public sector accounts	110
5. Statistical series for investment and inventories of fixed capital	110
6. Structural analysis of government activities	111
7. Technical inquiry addressed to administrative agencies ...	111
8. Principal subjects of the inquiry	112
(a) Description of the agency's activities	112
(b) Financial resources	112
(c) Expenditure and investment	112
(d) Goods and services produced	113
(e) Use of goods and services and their unit costs	113
(f) Supply of staff	114
(g) Supply of capital equipment	114
(h) Period of completion of investment projects	114
(i) Minimum allocation of resources	114
(j) Projects in progress	114
(k) Agreed investment plans	115
(l) Financial plans	115
(m) Estimated requirements for services	115
(n) The agency's criteria of priority and policy adopted	116

	<u>Page</u>
9. Experience gained in a technical inquiry addressed to administrative units	116
VI. SOME PRACTICAL ASPECTS RELATING TO THE FORMULATION OF PUBLIC INVESTMENT PROGRAMMING	123
1. Overall projection of available resources for the financing of programming activities	125
2. General considerations relating to the allocation of public investment programme funds	126
3. Factors conditioning the application of a system of priorities	128
4. Preliminary allocation of resources by the central office to each of the various units	131
5. Preparation of plans in the executive agencies	133
6. Inputs of goods and labour	134
7. Final shaping of the programme	135
8. The preliminary public investment programme and its progressive improvement	137

GENERAL INTRODUCTION AND PURPOSE OF THIS REPORT

1. If vigorous economic and social development plans are to be carried out in the Latin American countries through the mobilization of national resources and more extensive external co-operation, consideration will have to be given to the technicalities of determining what planning studies are to be undertaken forthwith and what government machinery is to be set up in order to guide an ambitious investment programme in the coming years.
2. It is no overstatement to say that insufficient attention has so far been paid to the practical problems involved in the technical execution of a process of programming targets and measures designed to constitute a deliberate development policy. It is to a certain extent true that there has not been the same obvious progress in organizing administrative analysis and decision-making machinery as in clarifying the development problems of the Latin American countries.

The comprehensive surveys undertaken of the economies of a number of countries have included an appraisal of obstacles preventing or delaying economic growth, and it has even been possible to formulate specific proposals regarding the lines on which an economy should be developed. These surveys have not, however, been digested as thoroughly as might have been expected by sufficiently competent technical organs of government which might have used them as a starting point for a permanent process of analysing and improving their decisions concerning the basis of programming.
3. There is then an urgent need to determine what factors have particularly prevented or delayed the strengthening of such machinery and to consider what practical steps are required to determine what would be the most advantageous form for international technical co-operation to take in order to help countries in this immediate task.
4. The specific purpose of this document is to give information on recent ECLA experience in connexion with a programme of technical co-operation with a number of Latin American countries intended to establish national planning machinery and draw up economic development programmes.

5. In accordance with ECLA resolutions 137 (VII) and 155 (VIII), ECLA and the Bureau of Technical Assistance Operations (BTAO), with the active collaboration of FAO and other international agencies, organized missions consisting of economists and technical experts in overall programming and in each of the main sectors of economic activity, and of specialists in budgeting techniques and national accounts.

6. The work of the so-called "advisory groups" has been directed towards collaborating with the countries in:

- (a) the establishment and operation of an administrative organization responsible for programming, with particular regard to reforming the mechanisms for preparing and executing the budget in such a way that it will become an executive instrument for the planning of government activities;
- (b) training officials in analysis and programming by collaborating in their daily work and giving intensive courses on basic subjects;
- (c) the establishment of a system for collecting and providing statistical information for programming;
- (d) the technical work of preparing a development programme and, in particular, a public investment plan.

The advisory groups do not take part in the preparation of economic policy measures; their function is essentially technical and confined to the aspects of planning that have just been enumerated.

7. In the two years during which these groups have been operating, experience has shown them the most suitable way to set about establishing the programming process in the countries concerned. Accordingly, they have found that the immediate measures should include:

- (a) administrative organization for programming, the organization of statistical and technical information and personnel training;
- (b) basic analyses of development problems, the appraisal of growth targets and their implications as regards resources, balance of payments, etc.; and
- (c) the training and organization of teams for the preparation and evaluation of investment projects.

/More intensive

More intensive study must be made of the public sector and the programming of government activities must be progressively improved as quickly as possible. This should include a short- and medium-term public expenditure programme and, more especially, a public investment programme in line with the country's development policy.

It must be realized that delay in improving the assignment of resources in public expenditure and investment postpones the possibility of building up a rational policy-making process, for any scheme that is started without taking account of priorities and the real requirements of development will tie up resources unnecessarily for a number of years, depending on how long it takes to complete the projects.

8. Accordingly, it was thought that this report should contain information about the experience of the advisory groups as regards certain practical aspects of the planning of government activities, as other aspects of analysis and programming have already been dealt with in other secretariat publications.^{1/}

Section I of this report is devoted to the problem of establishing machinery for the preparation and execution of development plans and to explaining how United Nations technical co-operation is applied to assist countries in this work. Section II deals with some aspects of planning in government activities and the problems of programme budgeting. Section III covers some aspects of administrative organization for programming. Lastly, sections IV and V contain a diagnosis of the problems of public investment and section VI contains an analysis of certain practical aspects of the formulation of public investment programmes.

^{1/} In addition to the documents which form part of the series Analysis and projections of economic development, placed before the Commission at sessions previous to the ninth session to be held in May 1961, at Caracas, Venezuela, a special study is being submitted entitled "Economic development, planning and international co-operation" (E/CN.12/582).

I

THE PROGRAMMING OF ECONOMIC AND SOCIAL DEVELOPMENT
AND INTERNATIONAL TECHNICAL CO-OPERATION
THROUGH THE ADVISORY GROUPS

1. Nature of the programming process

This section of the report deals with a few formal programming concepts which will contribute to a more complete understanding of the problems which public administrations must solve in order to initiate a process of this kind and of the means by which the technical co-operation of ECLA and the Bureau of Technical Assistance Operations (BTAO) and other international bodies is provided with a view to assisting governments in this task.

A calculated policy of economic and social development involves a series of measures by which the achievement of certain targets is sought. When these measures and targets are determined or estimated, as the case may be, a development plan emerges. The economic process of production, distribution and demand in respect of goods and services, an increase in the volume of which is sought, is structurally interdependent. This is so because of two essential factors: the interdependence which arises from the technological structure of production; and the functional interdependence resulting from the demand for goods and services determined by the income level of the population.

Hence, programming must include all sectors of production. For example, an industrial development policy cannot be laid down without taking account of the other sectors or at least its effects, nor can a given public investment programme be decided upon without considering its impact on the economic sectors or the financing of private activity.

It is clear from the interdependent nature of the economic process that the series of targets and measures must be consistent or compatible within each sector and with the economy as a whole. In practice, to ensure compliance with these two requirements is a highly complicated matter because several government bodies with a certain degree of autonomy are involved and because, although the direct activity of the government may have to conform strictly to a plan, private enterprise acts in accordance with its own motivations, guided by general policy decisions; the effectiveness and evaluation of the results of these decisions are precisely a matter of study and experience.

/Moreover, programming

Moreover, programming must have two other closely-related characteristics: continuity and flexibility. A programme must of course be constantly reviewed in the light of changing economic conditions and of the results it has achieved, targets and measures being adjusted or amended accordingly. This raises the problem of devising one method for evaluating the effectiveness of economic policy measures, and another, to be applied at the same time, for evaluating economic development prospects.

Lastly, the programme should have a method or strategy inherent in the conditions obtaining in the country itself and, in order to meet these conditions, it should contain elements of flexibility conducive to maximum sustained growth.

2. Basic programming elements

Generally speaking, programming may be said to consist of the following basic elements:

- (a) the fundamental institutional structure of the community;
- (b) specific policy decisions;
- (c) short-, medium- and long-term economic and social development objectives and targets;
- (d) measures which the government is prepared to take to achieve those objectives.

Programming is a technique which consists, in essence, of trying to formulate an economic policy to achieve certain objectives, based on an institutional structure decided by the government, the social values of the community and certain political decisions. In accordance with these criteria, economic policy measures will be of a specific nature and quantitative measures will be confined within certain limits.

The function of the programming technique is essentially to show where funds can best be invested, in other words which investment programme will produce the maximum yield, and which set of compatible measures will be most effective for the achievement of the proposed objectives.

3. The time element in programming

Programming targets are usually laid down in long-, medium- and short-term plans. The long-term plan may cover ten or more years, the medium-term plan a considerably shorter period, while the short-term plan may involve a series of decisions to be applied immediately, e.g. the following year.

Long-term plans set overall economic and social development targets for the economy as a whole or for specific sectors, e.g. raising income by a given amount, establishing heavy industry, etc. They are usually based on relatively simple mathematical models and may involve economic, social and technological changes considered feasible during the period. They do not go into details concerning means or sources of finance, which would serve no practical purpose since these depend on conditions and circumstances which may vary substantially or on the achievement of certain basic sectoral targets.

Medium-term plans - e.g. from 4 to 6 years - specify targets and measures in greater detail and include specific performance programmes and projects.

Short-term plans or programmes constitute a detailed specification of targets and of the means by which they can be achieved immediately. They are much more difficult to prepare, their analysis is more closely circumscribed by present conditions and immediate prospects, and they require a vast wealth of information.

The experience gained in carrying out short-term plans will show what adjustments have to be made in medium-term plans and possibly in long-range targets.

Hence, the long-term programme need not include annual targets for each year it covers. On the other hand, it is useful for medium-term plans to include such targets, at least for some sectors, such as the public and external sectors.

The fixing of the duration of medium-term plans is not entirely arbitrary. Some aspects of the development programme and the economic process may indicate that long periods are required. Thus, if a programme

/includes investments

includes investments or substantive decisions - e.g. land reform, tax reform, varying degrees of economic or trade integration with other countries, and investments in hydroelectricity - the time required for the execution of these projects provides a useful and logical guide to a period for programming. If a country has a relatively large number of public works in progress, the deadlines for their completion may also be an indication.

The nature of the programme and the conditions in the country concerned may at the outset suggest specific magnitudes of growth which may impose more or less rigid limitations on the stages of development. In practice, however, because targets are approximate and are affected by a variety of factors, the tendency is to adopt average rates of steady growth.

On the other hand, rather short periods are involved, even over the medium term, because there is naturally a greater sense of security in a more detailed specification of economic policy measures and performance programmes and projects.

4. Need for stronger government machinery for analysing, programming and deciding on economic policy

The above analysis makes it clear that, regardless of the extent to which the government decides to participate directly or indirectly in the economic process in order to formulate a calculated policy of development, machinery will have to be established for taking decisions, fixing targets and selecting methods of action; this machinery must keep abreast of the experience gained and the results of the measures applied in order to adjust them or to amend them constantly in the light of changing economic conditions or the greater experience acquired as a result of the economic process.

It would be useless to study and decide on a specific plan at any particular moment unless there is a proper organization for applying the decision and evaluating its results.

This technical organization would have two main functions: programming of the government's direct activity as regards the provision of services and the formation of capital; and the preparation and implementation of economic and social policy measures.

5. Current public administration problems in meeting
the requirements of a programming process

In practice establishing a programming process is not easy, because a suitable organization and adequate funds are lacking. The most obvious problems are:

- (a) Lack of effective administrative machinery for co-ordination and general programming;
- (b) Shortage of trained staff;
- (c) Low level of efficiency in public administration;
- (d) Defective system for the gathering and dissemination of economic information, particularly statistical data;
- (e) Lack of economic analysis and evaluation of the effectiveness of government measures;
- (f) Lack of machinery for the programming of government activities.

Governments have at their disposal clearly differentiated administrative machinery for enforcing legislation. Similarly, there are usually high-level committees or boards, and in some cases co-ordinating or planning offices, responsible for formulating or co-ordinating economic policy. However, there is usually no basic organization within each department, and no effective machinery for co-ordination between departments, to ensure the maximum effectiveness of the decisions adopted, with respect both to measures of social and economic policy and to government participation in the provision of services or the formation of capital.

This point can be illustrated by numerous examples in present-day Latin America. Thus, in the field of general economic policy decisions it is well known that not only is there a lack of co-ordination, but there are sometimes even differences of policy as between the departments concerned with monetary matters, taxation, and development. It is common for development plans to be drawn up for one sector, while others are neglected, or for plans to be established for which the financial implications are not compatible with the aims of general policy.

As regards direct government action, it often happens that plans for public investment by the central government, sometimes existing side

/by side

by side with local government plans, are carried out without co-ordination, and exceed the capacity of the economy as a whole to finance them.

Some notorious examples of failures to co-ordinate in government projects are: delays in the execution of ancillary works; failure to provide for installation costs; programmes for building schools for which there are no teachers; and training of teachers when there are no schools for them. Lastly, the lack of programming is the main reason for the current tendency to launch an excessive number of projects in relation to the operational capacity of the administrative bodies. All this reduces the productivity of the public sector and of the economy as a whole.

The shortage of trained staff in government departments is one of the most obvious drawbacks which hampers even the first attempts to improve the machinery for programming and taking decisions. Training is needed in all types of activity, from administrative to technical. Consequently a careful analysis of the reasons for this shortage - and they are by no means simple - is urgently needed if the problem is to be solved.

Much progress has undoubtedly been made in the various countries in dealing with all these problems, but the pressing need to deal with development problems calls for a more rapid improvement than heretofore.

A common feature that demonstrates the lack of adequate training in the civil service is the lack of a sufficient number of investment projects in fields that are a direct government responsibility. International bodies, such as the Inter-American Development Bank, have recognized the existence of this problem and have embarked on a policy of making funds available for the execution of such technical work.

One method used to improve civil service efficiency is the establishment of autonomous bodies, that is, institutions with clearly defined responsibilities in a particular field and with greater administrative and financial autonomy than departments of the central government. This arrangement makes it possible to recruit trained staff,

/to obtain

to obtain larger funds more promptly, and to take decisions that can be put into effect immediately because they are not hampered by the obstacles and complicated formalities of the centralized administration.

It is widely known what good results are usually obtained by most such bodies, which are so highly regarded that they are sometimes pointed out as examples of how central government administration should be conducted.

However, it must be pointed out that such bodies compete successfully with other government branches for human and technical resources. In some countries a relatively large number of such institutions has been established, constituting a large autonomous sector and posing the problem of the co-ordination of their activities with those of the units of the main administration.

The programming of government activity will be dealt with later in this paper, and it will be seen how the introduction of modern methods of drawing up and executing the budget encourages greater flexibility throughout the administration, establishing responsibilities and objectives in terms of what has to be done, so that in an efficient civil service there should be no such difference as now exists between the level of technical efficiency of different departments.

Another point that calls for special comment is the lack of statistical data. This problem is most serious in the very countries that most urgently need such data for preparing their development programmes, since scanty and inaccurate statistical data are apparently associated with a low level of income. The statistical offices do not have sufficient technical resources in the way of staff and equipment. Moreover, statistical offices sometimes undertake a large-scale collection of data in some fields, when they are unable to undertake the subsequent work of checking and compilation, while in other fields only a minimum effort is made.

/Immediate steps

Immediate steps should be taken to deal with the statistical problem, because it seriously hampers progress in analysis and programming. The basic factors must be considered, namely, the technical training of the statistical units; the organization of the central office and the sectoral and area offices; the work programme, with specific priorities; and the organization of a system of supplying data to the planning offices and other bodies. This constitutes a major undertaking that the officials of the countries concerned cannot undertake without international technical assistance.

A greater effort is also needed in the work of economic and social analysis and the evaluation of the achievements of economic policy; this requires the organization of units closely associated with the programming system.

Lastly, there is a lack of machinery for programming the government's direct work of producing goods and services; this situation is all the more serious in view of the fact that public investment is a vitally important development factor in Latin America and that there are innumerable social service needs calling for urgent attention. This lack is clearly shown in the methods of drawing up and executing the budget. The dominant note in government budgeting continues to be control of the use of funds for individual objectives, instead of the specific purpose being to carry out given programmes or projects on the basis of the optimum use of resources. Later in this paper further consideration will be given to the question of the best way of introducing a new technique for the rationalization and planning of public expenditure.

The following section describes how ECLA and the Bureau of Technical Assistance Operations (BTAO), in conjunction with other specialized bodies, are co-operating with the countries concerned to solve these various problems.

6. Nature of the new form of United Nations technical co-operation through the advisory groups

Two years ago ECLA and the BTAO introduced a new type of technical co-operation for the purpose of assisting countries, so requesting to solve the problems that governments meet in establishing machinery for economic and social programming.^{1/} Subsequently the Food and Agriculture Organization (FAO) took an active part in this programme, and more recently the International Labour Organisation (ILO) and other specialized agencies have also participated.

Under the new system an advisory group of experts was established in Colombia in May 1959, another in Cuba in September of the same year, and in April 1960 a third advisory group began work in Bolivia. Two additional groups are now being organized: one in Venezuela and the other in Chile. As previously stated, the main purpose of the present report is to describe the experience of these advisory groups in relation to the practical problems of programming referred to above, but it may be useful to refer first to other factors that led to the decision to establish this type of technical international co-operation.

It has often been noted that expert reports in the field of analysis and programming have not resulted in any effective action in the countries concerned, because the organizational and staff facilities available there were insufficient to put the recommendations into effect. Furthermore, the general economic surveys of various countries conducted by international bodies, although valuable, not to say essential, for the evaluation of development problems, and for the determination and clarification of economic policy objectives, have also failed to result, at least to the extent that might have been expected, in a sustained national effort of analysis and programming.

These failures have been due to the lack of technical organization and shortage of experts, which have prevented the countries concerned from bringing these studies up to date and using them as a point of departure.

^{1/} See ECLA resolutions 137 (VII) and 155 (VIII).

/Similarly, it

Similarly, it should be pointed out that these studies, because of their nature and purpose, cannot contain detailed up-to-date information on the operational aspects that concern each of the various government departments.

Consequently it became clear that the unreserved acceptance by governments of the recommendations made by international bodies would not lead, with the necessary promptness, to effective measures to improve techniques and result in sounder decisions, because of the above-described conditions in these countries, and also because in the past little attention has been given to practical programming problems.

Hence it was logical that the next step should be to consider the organization of technical co-operation with these countries to give them direct assistance on the spot in establishing the process of analysis and programming.

In putting this new method of technical co-operation into practice, it must not be overlooked that programming must cover all economic sectors in a co-ordinated plan, so that United Nations co-operation will be more effective if the work of the various international experts required by the country in these fields is co-ordinated on the scene of operations. This led to the idea of setting up advisory groups with the composition and method of work described later in this paper.

In the establishment of these advisory groups ECLA and BTAO were faced with a programme of a special type, since the need was for a staff of experts with special qualifications, and the sphere of action of these groups had to be carefully defined to ensure that the fundamental results aimed at would be forthcoming.

The experts have in fact to adapt themselves to their surroundings in the countries where they work to a greater extent than is necessary on other missions, since their function is not to carry out studies themselves, but to provide direction and guidance so that, as far as possible, the work can be done by national officials. Consequently these experts must possess practical talents in administrative organization and teaching, and be accustomed to working within a co-ordinated plan, such as that required by programming.

/It has

It has not been easy to obtain experts with these multiple qualifications, and this difficulty, added to the limited funds available, has delayed the formation of other advisory groups and made it difficult to obtain the required number of experts for existing groups.

Another point that had to be settled in establishing the advisory groups was the delimitation of their work in the country concerned. In this connexion it was clearly laid down that the advisory groups should not participate in any way in drawing up measures of economic and social policy. Their task is essentially technical, and consists in helping governments to develop machinery for analysis and programming, to organize and improve the flow of statistical and other information required, and to implant new concepts and methods of work. They assist in working out various alternatives in an objective and essentially technical spirit, without advocating a particular solution or method, the choice of which is regarded as entirely the responsibility of the government or officials of the country concerned. If governments require any advice on this matter, they can obtain it from ECLA and the other United Nations bodies, in accordance with the normal practice, but through other channels.

In brief, the specific duties of the advisory groups are:

- (a) to formulate recommendations on the organization of administration for programming;
- (b) to train officials;
- (c) to recommend and organize statistical training for programming work;
- (d) to establish, in the various bodies, general, sectoral and regional analysis and programming methods, as may be required;
- (e) to collaborate in the technical work of drawing up development programmes;
- (f) to establish methods of preparing and evaluating projects and work programmes;
- (g) to advise on the redesigning of budgeting machinery in accordance with programming requirements; and
- (h) to help the government in drawing up its technical assistance programmes.

7. Composition of the advisory groups

The advisory groups consist of economists and other experts with programming experience. The senior programming officer is usually the head of the group, the members of which are experts in the following subjects: agriculture, industry, energy, transport, public investment, budget and statistical techniques, particularly national accounts. Due regard is paid to the need to integrate these groups with regional programming officers who are experts in economic development financing and in administrative organization.

Moreover, in accordance with the specific conditions obtaining in each country, the group usually also includes experts in manpower, industrial promotion and in the specific activities of the other economic sectors listed.

8. Modus operandi of the advisory groups

The advisory group establishes itself in the country concerned, acting as if it were part of the national body concerned with programming studies and analyses, although it confines its participation to the technical aspects mentioned above.

When the country concerned has central planning organs, as in Bolivia and Colombia, the advisory group works within these organs. In other cases, it works within the ministries of economic affairs or development or in other units dealing with national programming. In Cuba, for instance, it functions within the Ministry of Economic Affairs; in Venezuela it is being set up in the Planning Office; while in Chile it has been established within the Development Corporation (CORFO), the organ responsible for the Ten-Year Development Plan announced by the Chilean Government.

The government immediately appoints experts to work with the international experts so that the former may take over when the latter complete their mission. The head of the advisory group co-ordinates the group's activities in co-operation with the senior national official or head of the planning office.

/The experts

The experts get in touch with each of the ministries or departments concerned with economic and social affairs, and working groups are formed on which the departments concerned and the planning organs are represented. The expert sometimes works directly in the Ministry concerned - the budget expert in the Ministry of Financial Affairs and the public investment expert usually in the Ministry of Public Works. The advisory group thus sets up an organization which serves as the machinery which the country lacks or co-operates in putting into operation an organization of this kind already decided upon by the government, as was largely the case in Colombia.

A general, detailed work programme is arranged, beginning with the compilation of statistical data and the gathering of other information, continuing with sectoral and overall economic analyses, and concluding with the programming of development objectives and targets.

The group constantly bears in mind the fact that its work must eventually form an organic part - as a permanent service - of government departments. Thus, for example, the national accounts expert prepares the work he is going to initiate by a critical analysis of sources of information, decides on the additional statistics which have to be obtained within a given period, determines definitions and methods and, together with the officials of the country concerned, begins the specific work of making estimates.

The same line is followed in the work done in each economic sector by the working or expert groups of the departments concerned. It is borne in mind at all times that the essential thing is to set up inside the government units a permanent process of analysis and programming and not to provide ad hoc solutions to problems.

9. The work plan of the advisory groups and the problem of starting a programming process

While certain practical criteria for the initiation of a programming process have been established in the light of the experience gained in some countries, it is interesting to note that the major problems are more or less the same in every country.

/Broadly speaking,

Broadly speaking, the technical work usually starts with the following:

- (a) immediate steps to set up the administrative organization for programming;
 - (i) as a first step, the establishment, however rudimentary, of a co-ordination of functions between a central team and teams in each ministry, autonomous institution and regional unit, to serve as the technical machinery that is lacking in the country concerned;
 - (ii) initiation of staff training on a systematic basis and efforts to bring into the government as many national experts as possible;
 - (iii) assistance to governments in the formulation of their international technical co-operation programmes in specific fields and co-ordination of the activities of the growing number of experts from international specialized agencies dealing with economic and social questions;
- (b) establishment of a programme to improve statistical data on the basis of a work plan with the necessary priorities;
- (c) immediate analytical evaluation of the overall and sectoral prospects of the country's economy on the basis of available quantitative and qualitative data;
- (d) an outline, based on this evaluation, of the basic features of a long-term - e.g. 10 year - development programme to be progressively improved upon;
- (e) advisory assistance in the recasting of the budget system to rationalize public expenditure and to formulate in specific terms government activity programmes consistent with the purposes of the development policy;
- (f) immediate programming of government activities in accordance with the lines and priorities emerging from overall economic studies.

/All the

All the above functions should be so arranged as to enable the government subsequently to produce every year:

- (a) a report on the country's overall economic status and prospects;
- (b) the State programme budget and investment projects;
- (c) a medium-term investment and social services plan which might, for instance, cover the next 4 or 5 years, to be brought up to date annually on the basis of the budget.

The government could thus begin to programme its own activities within the context of an overall programme and to improve its information machinery so as to increase the efficacy of its economic and social decisions.

10. Analytical and programming work undertaken in countries with the co-operation of the advisory groups

The advisory groups have been operating for only a relatively brief period in countries that requested their services either from ECLA or BTAO and they could not be set up under the best possible conditions, in some cases because of lack of experts and in others for lack of funds. Yet this new form of international technical co-operation has achieved positive results by helping to correct all of the defects which have emerged and it has been of immediate use to governments in enabling them to take decisions with a better understanding of the factual situation and on a sounder technical basis. This can be well illustrated by a brief review of the steps taken in each country in close co-operation with national officials.

(a) Colombia

The government took decisive steps to consolidate programming machinery and set it in motion. The most significant measures are the laws laying down the basis for the planning and budget offices in the ministries, the reorganization of the Budget Office of the Ministry of Financial Affairs and the introduction of budget programming.

The following are the more important analytical and programming activities carried out in Colombia:

/Estimates of

Estimates of national accounts and other basic statistics. Working groups consisting of national and international experts completed the following technical work: (i) a strict method was laid down for compiling national accounts, in terms of current and constant prices, and annual estimates were completed for the period 1950-60; (ii) a population study was concluded and projections made of future major population changes; (iii) a careful analysis was made of public sector accounts; (iv) a retrospective analysis and analytical forecast were made of the balance of payments for each of its headings.

Four-Year Public Investment Programme. With the direct advice and co-operation of the Advisory Group, the agencies responsible for planning in Colombia prepared a four-year public investment programme submitted by the President to the Congress towards the end of 1960. The programme includes: (i) general considerations and an evaluation of Colombia's economic problems and prospects; (ii) economic and technical evaluation of public investment in Colombia; (iii) overall and sectoral investment and finance plans; (iv) analyses of each administrative unit, its plans and financing.

Reorganization of the Budget Office and the budget machinery. The following legislative decrees which are now in force in Colombia were passed by the Government in 1960: (i) Legislative Decree 1016, laying down procedures for programme budgeting; (ii) Legislative Decree 1124, reorganizing the National Budget Department and establishing the budget programming section and budget analysis groups; (iii) Legislative Decree 550, establishing budget offices in each Ministry.

Introduction of the programme budget technique. In the 1960 budget, the technique of programme budgeting was introduced in a number of Ministries with the direct advice of the Group, and in the 1961 budget, already approved by Congress, the technique of programme budgeting was extended to all Ministries and autonomous agencies. In addition, in 1960 control of the practical fulfilment of targets and programmes laid down in the budget was set under way.

/Administrative organization

Administrative organization of programming. In addition to the reorganization of the entire budget machinery, Legislative Decree 550 provided for the creation of planning offices in each Ministry, thereby completing the administrative planning system of Colombia.

Evaluation of development problems and Colombia's economic outlook. The working groups organized by the Advisory Group completed reports analysing the economy as a whole and, in particular, the agricultural, industrial, energy and public sectors and the balance of payments.

Overall economic and social development programme. The combined working groups of Colombian officials of the relevant ministries and planning bodies completed basic sectoral projections with a view to formulating development programmes. Practical investment projects and programmes were drawn up for specific activities in the agricultural, industrial and energy sectors.

These projects and programmes were studied in the early months of 1961 by the planning bodies with a view to drafting an overall and sectoral economic development programme. In addition, the Advisory Group collaborated with the planning bodies in the preparation of technical aspects of the Government's economic and social platform, described in a document published early in 1960. This important document sets forth the Government's fundamental targets in the matter of economic and social policy.

Intensive training courses in economic analysis and programming. In 1959 and 1960, intensive training courses were given in analysis and programming techniques to officials working chiefly in economic and social affairs. A total of 124 participants attended these courses and 56 of these were awarded diplomas as full-time participants.

Results in Colombia, the main aspects of which have just been outlined, show how the Advisory Group has been fulfilling its purpose of assisting the Government in establishing machinery for analysis and programming. In addition, the economic surveys and sectoral development programmes are at present under study by the planning bodies with a view to their incorporation into the overall development programme which the Colombian Government is due to announce in the near future.

/(b) Cuba

(b) Cuba

The Advisory Group continued working in Cuba during the greater part of 1960. Its work was facilitated by a series of reforms which the Government put into effect with a view to establishing an institutional programming mechanism. In March, the Central Planning Board (Junta Central de Planificación) was set up to co-ordinate the work of formulating short- and long-term plans, the preparation of budgets and the collection and preparation of statistics.

The Group advised the Government of Cuba on the establishment of a new budgeting system in keeping with the need to incorporate the short-term plan into the State budget. This new system became effective as from 1 July 1960 throughout the central government and in a number of municipal governments.

The government also organized sectoral planning, budget and statistical offices and made further use of the Advisory Group's services, particularly for the training of the staff required.

In 1960, the Ministry of Public Works put into practice methods for the formulation of a public works plan and the National Land Reform Institute (Instituto Nacional de Reforma Agraria - INRA) drew up plans for agriculture. The Group gave technical advice to these and other State agencies in the aforementioned activities and also in the formulation of long-term plans in the different sectors. Similarly, technical assistance was granted to deal with the problems of skilled labour, statistical organization, standard classification of activities and administrative organization for planning.

In 1959, a training course was given of the same kind as those held in Bolivia and Colombia; it was attended by 32 full-time and 30 part-time participants.

(c) Bolivia

The Group started work at the end of April 1960 and has carried on operations, mainly through joint teams of Bolivian and international specialists in each type of activity. Some of the main activities so far dealt with include:

/National planning

National planning machinery. A study was made of the experience acquired during the existence of the former National Co-ordination and Planning Commission (Comisión Nacional de Coordinación y Planeamiento) and on the basis of this experience, the establishment was suggested and approved of a new National Planning Board (Junta Nacional de Planeamiento) with more clearly defined terms of reference and internal structure.

Preliminary research for the formulation of development plans. In conjunction with Bolivian experts, a very broad and diversified programme of basic research was embarked upon covering the most important problems and sectors of the national economy. On this basis, a preliminary diagnosis was made. Research was based as much upon the systematization of statistical information and encouragement to new programmes for the improvement of statistics as on direct recognition of the problems. It is hoped that the first overall economic and social development plan will be completed in the near future and that this will include a well-defined programme of medium-term public investment and special programmes for the development of particular areas of the country.

Reforms in the budget machinery. The Group co-operated in the work of radically changing the traditional budget pattern to bring it into line with programme budgeting techniques. The budget for the financial year 1961 has already been promulgated in this form. With a view to consolidating progress in budgetary matters, the Group gave assistance in the reorganization of the Central Budget Department and, more generally, collaborated in the studies for the reorganization of the Ministry of Economic Affairs.

Training of personnel and dissemination. The Group contributed in various ways in training Bolivian experts in economic development and specialists in programming; these included daily contacts in joint work, meetings and special round-table discussions on methodology and the organization of an Intensive Training Course in Economic Development Problems which was attended by 22 full-time and 102 part-time participants and also the organization of a special seminar on budget techniques, etc.

/Attention was

Attention was also given to the wider dissemination of basic concepts and techniques, particularly through the holding of public lectures and the issue of a quarterly review by the Planning Board, which started publication in December 1960.

Collaboration in aspects of immediate interest. In the course of the work undertaken a large number of problems of immediate interest to the national authorities have arisen and specific action has been taken in connexion with them. Among examples of such activity, mention should be made of the collaboration of the Advisory Group in the submission to the United Nations Special Fund of a draft survey of mineral resources; reference should also be made to the assistance given to formulating a national emergency investment plan designed to facilitate immediate external financing, and to the collaboration afforded to the mission sent to Bolivia by the Inter-American Development Bank to study what financial operations the Bank could undertake in Bolivia over the short-term.

II

THE PROGRAMMING OF GOVERNMENT ACTIVITIES

Note: The description of the budget organization and of the planning bodies in this report relates to the situation in February 1961. Changes were made subsequently, affecting mainly the organization of the Cuban Planning Board.

1. Previous recommendations by the United Nations

For some time United Nations bodies have been stressing the need to change traditional national budgeting techniques in order to rationalize those aspects of public expenditure that affect productibility and the effectiveness of decisions and, more recently, in order to achieve the vital aim of making the budget an instrument of economic and social planning.

In 1959, the Workshop on Budgetary Classification and Management in South America was held at Santiago, Chile, from 27 May to 5 June.^{1/} At this Workshop the Economic Commission for Latin America (ECLA)^{2/} and the Fiscal and Financial Branch of the United Nations Bureau of Economic Affairs underlined the urgent need to establish a new budgeting technique and, in particular, the value of such a technique in the programming of economic development. Documents explaining the concepts underlying the new techniques and methods of applying them^{3/} were submitted at this conference.

The intention here is not to deal with those subjects once more, but to dwell on certain important concepts and to consider questions bearing on the practical application of the technique of performance budgeting in relation to the experience of the advisory groups in Bolivia, Colombia and Cuba.

In these countries profound changes have begun in the whole process of drawing up, executing and controlling the budget. Performance budgeting is being established by gradual stages in accordance with the institutional and administrative features of each country. Even on the basis of the present short experience, there are significant indications that the new system is becoming firmly established, with satisfactory results.

1/ The report on the Workshop bears the symbol E/CN.12/538-ST/TAO/SER.C/39.

2/ See "The budget as an instrument for programming economic development" (E/CN.12/BRW.1/L.3).

3/ See Presupuesto de programas y de ejecución por actividades (E/CN.12/BRW.1/L.5), prepared by the Fiscal and Financial Branch.

2. Need to change the budget machinery for
programming purposes

The traditional budget is essentially an accountancy instrument for the control of government operations. It is designed to permit the maximum control of the official legal use of public funds. It shows the amount of money that each government body will spend and the goods and services to be paid for. Consequently it is classified according to the various bodies - ministries, departments and divisions - and by type of expenditure - salaries, purchases of equipment and purchases of services. The aim of this form of presentation is to identify the person responsible for the funds and specify the amount, so as to facilitate the accounting and auditing of the execution of the budget.

This system attaches special importance to the fact that the responsible official earmarks the funds for approved expenditure, but overlooks the question of whether the funds are efficiently used in relation to the goods and services produced by the government.

The budget is usually drawn up on the basis of applications for allocations from each office, thus ensuring that these expenditures will not increase annually beyond a given rate, but no specific account is taken of the needs of the services, and the main concern is with the formal aspect of ensuring that new bodies and new budget items are not added.

Estimates drawn up on this basis subsequently undergo a series of modifications. The budget office usually makes cuts in the estimates set forth in the applications submitted by the various ministries, and because of the routine procedures followed, these cuts are not always carefully calculated in line with what is needed to meet urgent needs and to complete existing projects, or to keep public expenditure clearly in line with the requirements of economic and social development. The cabinet and the legislative authorities usually introduce changes and make overall reductions of allocations or they add new items or projects which, in the circumstances, cannot be given proper consideration in relation to the inputs and outputs represented by the budget they are examining.

/The execution

The execution of the budget is largely automatic. Each department strives to use up the funds it has been allocated, often without having established any programme of priorities for the year, and it sometimes happens that bodies that have obtained funds that are in excess of their operational capacity try to spend the money before the end of the financial year, in order to justify their applications, on activities that could well wait. The execution of the budget does not specifically require rationalization to ensure that the maximum benefit is derived from the funds spent. The form of the budget machinery has transformed it into a routine operation and encourages a passive attitude in the official.

The accounting procedure is usually cumbersome and hampers the execution of the budget to the detriment of productive efficiency. Accounts are drawn up at several stages of the operations concerned: firstly, by the accountants in the office spending the money; secondly, by the Treasury accountants; and thirdly, by the accountants of the Controller's office or the audit office. The auditors check the accounts or approve the accountancy system in advance to eliminate legal or accountancy loopholes and thus prevent fraud or misappropriation of funds.

Finally, the results of the financial exercise for the year are presented in the general balance sheets of the Ministry of Financial Affairs; they are often unintelligible both to the taxpayer and to the Treasury analysts, and the latter are continually obliged to seek clarification as to the meaning of the accounts and items.

In brief, the traditional budget is designed to facilitate its administration, and the accounting and auditing of public funds, to the detriment of the budget's usefulness from the standpoint of economic and fiscal policy, and the rationalization and programming of government activities.

The need to consider these basic aspects becomes crucial when countries decide to draw up programmes of economic and social development, because funds must be allocated in relation to specific objectives and priorities, to achieve social service objectives in fields where development has been

delayed, such

delayed, such as education and public health. Consequently, efforts have been made to establish in the budget specific responsibility for the activities that must be undertaken and emphasis has been placed on the need to make formalities more flexible and to improve the machinery for taking decisions with respect to government activities. In order to meet these requirements and aims, a new budget technique is being worked out, known as "programme and performance budgeting". Direct practical precedents are furnished by the budgets of the United States, Puerto Rico and the Philippines.

In Latin America performance budgeting is already being introduced in Bolivia, Colombia and Cuba, with the technical co-operation of the advisory groups, and a description of the experience in these countries will be given later in this paper.

3. Analysis of the activities of government bodies and the new budgeting techniques

From the broad standpoint of formulating economic policy, government activities may be regarded as falling into two main categories: (a) activities that give effect to measures of economic and social policy, which when integrated make up a programme or plan; and (b) the direct work of producing goods and services for use by the government bodies themselves or by other units in the economic and social system, or even by external bodies.

The notion of production can be extended to include activities whose end product is not usually subsumed under goods and services. This applies to such forms of government activity as preparing reports and furnishing information in reply to inquiries.

Thus the analysis of government activities covers a very wide range, from the preparation of reports and furnishing of information, the meteorological services of a ministry of agriculture, the education services of a ministry of education, and the health care of a ministry of health, to the production of consumer and durable goods by government undertakings or by the ministry of public works.

/Thus there

Thus there is a practical possibility of identifying, on the basis of specific criteria, operational units of the government that produce given goods or services. As an illustration of this notion, there follows a rough classification of the easily identifiable activities of some ministries.

(a) Characteristic activities of a ministry of agriculture:

- (1) Artificial insemination and genital pathology
- (2) Reforestation and forest rotation
- (3) Brucellosis control
- (4) Registration and analysis of milk production.

(b) Characteristic activities of a ministry of health:

- (1) Control of transmissible diseases
- (2) General out-patient services
- (3) Environmental sanitation
- (4) Mother and child welfare.

(c) Characteristic activities of a ministry of education:

- (1) Primary education
- (2) Training of primary teachers
- (3) Training of technicians and specialists
- (4) Cultural extension services.

(d) Characteristic activities of a ministry of public works:

- (1) Building maintenance
- (2) Preparation of engineering plans
- (3) Preparation of architectural plans
- (4) Road building
- (5) Building construction.

The activities easiest to define are those that produce goods, but there is no logical objection to applying a similar analysis to activities that produce services.

The "n" government activities that can be identified could be represented in the same form as in the chart shown in this paper, which gives the current inputs and factors of production used to produce goods and services in each activity. The production may be either a homogeneous whole, or a heterogeneous combination of goods and services.

/In primary

In primary education, for example, the services produced could be measured by the number of persons educated; in the chart entries could be made, in the column relating to this activity, for current inputs - fuel, electricity and paper, skilled and unskilled staff - and for capital equipment - buildings, land, machinery, etc. -, all of which combine to provide the education service.

A specific analysis of outputs and inputs of this kind can also be made for other less differential activities such as administration, research, advisory and inspection services.

The goods and services produced in each of the "n" government activities of an administrative, economic or social nature can be used in government agencies themselves or to satisfy needs and requirements in other fields. The goods and services which the government furnishes to other bodies may be classified according to various criteria. One of these criteria, which takes into account the body to which the goods and services are being provided and the nature of the need which is being satisfied, is of particular value for this analysis of programming. From this point of view, without claiming to establish rigorous standards, the following classifications of uses of goods and services could be established:

- (a) Families
- (b) Productive sectors:
 - (i) economy as a whole
 - (ii) specific economic sectors
- (c) Society as a whole.

If the chart here suggested is adopted, a separate place should be given to primary factor outputs (such as manpower training and capital goods) produced by government agencies and used in whole or in part by the government itself. Such goods and services are classified in respect of amount and total volume in the columns of section B of the chart, and, to the extent to which they are used during the period, they appear in the lines representing labour and capital in the columns corresponding to each government agency.

A few examples would serve as a good illustration of this and would clarify the meaning of this classification. The technical and agricultural campaign departments of the ministry of agriculture can operate directly

/Chart

Chart
ANALYSIS OF GOVERNMENT ACTIVITIES

Output Input		GOVERNMENT BODIES				USE OF GOODS AND SERVICES										
						SECTION A				SECTION B						
		1	2	-----	n	Productive sectors				Families	Society as a whole	Primary factors produced by Government bodies				
						s_1	s_2	-----	s_n	All enterprises			f_1	f_2	-----	f_n
I	Government activities															
	Activity 1															
	Activity 2															
	Activity n															
II	Goods and services produced other than by the Government															
	Sector 1															
	Sector 2															
	Sector m															
III	Labour															
	1) _____															
	2) _____															
	t _____															
IV	Capital															
	1) _____															
	2) _____															
	k _____															

in this economic sector. The general education provided by a ministry of education may be designed to cover whole families, but there would really be more point in giving particular types of technical education to those engaged in the economic activities for which they are relevant. Other services of an economic kind have no direct relationship with any particular activity and should be considered as linked to the economy as a whole.

The differentiation of goods by market of destination or purpose is to a great extent easier to make than for services. Road building, for example, can be placed under the economic sector for transport; the building of hospitals and schools which are to be used as part of the services provided by the government is to be found (on the Chart) under section B, on the "capital" line and in the column showing the branch of activity in which they operate. Similar treatment could be given to manpower training services used by the government itself as, for example, teacher training, the training of health staff and the provision of education in public administration schools.

The analysis of government activities could include other classifications alternative or complementary to those shown in the chart. The chart is, however, sufficiently illustrative in itself to throw light on the essential characteristics of an analysis of this kind. These are:

- (a) specification of activities;
- (b) determination of current inputs in each activity according to whether they derive from government agencies or other bodies;
- (c) determination of the labour and capital resources required for production in each branch of activity, showing specification of the type or class of labour or capital;
- (d) breakdown of production of goods and services according to their use inside or outside the scope of government activities; and
- (e) classification of use outside the scope of government activities on the basis of certain given criteria, one of which - from the programming point of view - is the criterion of functional purpose.

As a result, this analysis provides a basis for the collection of systematic information for two classes of study which constitute the cornerstone of modern budgeting methods; (a) efficiency of each activity or group
/of activities,

of activities, or in terms of the chart, the relationship between inputs of goods, services and factors on the one hand and output on the other; and (b) programming of each activity in relation to the requirements of the goods and services which it produces or, in terms of the chart, ascertainment of the functional relations of demand in each of the economic or social branches for the goods and services produced by the government.

In accordance with modern techniques, the government budget should include a breakdown of the "n" activities shown in the chart with details regarding outputs and inputs. Such activities should be grouped according to definite criteria coinciding with a given form of administrative organization and with well-defined responsibilities as regards executive, co-ordinating and policy making functions. It is now easy to understand why the new technique is called "performance budgeting" and the extent to which it differs from traditional budgeting as regards the purposes of analysis and programming. Accordingly, it will be of practical value to explain, on the basis of the chart, the ideas used in the practical application of this budgeting technique.

(a) Criteria for the definition of activities

The homogeneity of the goods and services produced would be the most suitable criterion for classifying activities; but its practical application is conditioned by the way in which production is carried out and its efficiency. For example, communications and education services include various kinds of outputs which can be measured individually, but it is no easy task to single out the activity corresponding to each type of output because such outputs arise from the aggregate of inputs and factors which are for the most part used jointly in the production of the various outputs.

(b) Criteria for the grouping of activities

Whether the intention is to draw up long-term plans or to prepare a budget, it is necessary to group activities. The criteria used for planning purposes may differ from those used in preparing a budget. The difference resides in the fact that to draw up a budget, activities are grouped in relation to efficiency.

/To formulate

To formulate plans, however, activities need not necessarily be grouped in this way. It is customary to use other criteria which are more useful for this purpose, such as complementarity and the technological functional relationship or functional relationship with other economic variables.

(c) Administrative responsibility

Clearly the executive responsibilities of administrative bodies must be clearly laid down for each of the activities specified. At this juncture the value of determining, on the basis of the chart, the optimum criteria for grouping activities at different levels of administrative responsibility, and of comparing the results of such an analysis with present organization will be appreciated.

In practice, the grouping of activities by large bodies has been carried out mainly on the basis of two factors: (a) the nature of the outputs and services rendered; and (b) a criterion of specialization or division of labour. An example of this is the concentration of education services in a large agency - the ministry of education - including general education services with vocational and technical education services. Another example, is the grouping of the building of schools with road building in another agency like the ministry of public works. On other occasions the overriding criterion is purpose. For example, the activities whose purpose is to meet the requirements of the agricultural sector are grouped in a specialized ministry.

A concrete technical analysis of this matter of administrative organization and its bearing on the rationalization of public expenditure would be very valuable.

(d) Levels of co-ordination and programming

The conclusions to be drawn from the chart could show the qualitative and even quantitative degree of technological and functional interrelation between the different agencies by demonstrating the operations carried out by each of them and by reference to the goods and services produced. These degrees of interrelationship and complementarity could be used together with other factors for appraising the levels of technical co-ordination between the agencies concerned; an example would be the executive and co-ordinating responsibility as between primary education, teacher training and the building of schools.

/(e) Functional

(e) Functional relationships in programming

A systematic classification of the use of goods and services produced by government agencies in the manner shown in the chart (and as already explained) would provide suitable criteria and data for determining the degree of relationship required, according to circumstances, for programming demand and the requirements in respect of goods and services produced by the Government. The services designed for each economic sector would accordingly be planned with the development aims of those sectors in view or in accordance with the objectives of the programme; both factors would, for example, be instrumental in determining needs as regards technical education and training of skilled labour for a specific economic activity. Other outputs of government agencies would depend on general economic development. This is true of the needs for basic social capital, although some of its components may also be linked to particular economic sectors. Requirements in respect of other goods and services would tend to depend more on political decisions. The ideal is to make the greatest number of quantitative estimations of such relationships.

A study of the relations between output on the one hand, and inputs of intermediate goods and services and the factors of production set forth under each of the "n" activities shown in the chart on the other, makes it possible to determine, qualitatively and quantitatively, the real and financial resources required to satisfy the government's demand or need for goods and services. When considering well-differentiated activities, cost studies provide more or less accurate relationships for programming, and in other cases, the known coefficients of input and the magnitude of their variation over the scale of output may be determined.

(f) The effect of the activities of government agencies on the rest of the economy

The chart makes it possible to deduce the direct or indirect effect of government activity on the rest of the economy. A given level of production in a particular activity may require: (i) inputs by the government itself; (ii) inputs by private bodies; (iii) labour force; and (iv) investments in fixed capital and in the building up of inventories.

/To satisfy

To satisfy demand, the rest of the economy will, in its turn, generate a particular activity which will be a source of additional income. The quantitative determination of these effects may be analysed in more or less elaborate models of analysis and programming.

(g) Systematization of concepts

To develop the analysis of activities and its application to budget techniques, it is useful to have a body of systematic concepts readily available. For example, each one of the "n" operations shown in the columns of the chart may be designated by the generic name of activity. The whole body of activities closely linked with the rendering of a service or the output of specific goods may be integrated into programmes, while the whole body of programmes, which by nature relate to goods or services with similar characteristics or purposes will make up the total of activities which are normally placed under the authority of a ministry or other important body. An example of this would be education, health and agricultural services.

In this way, the "n" columns and the "n" lines on the chart could be grouped by programmes and by groups of programmes, with explicit details regarding various administrative levels, as set forth in the chart.

Part A of the chart would show the distribution, by use and destination, of all goods and services produced by agencies at different administrative levels, showing in this way the factors which exercise a special influence on the level of employment in each agency.

Among other concepts useful in analysis and planning, mention should be made of consumption and investment. It is clearly shown that, in each of the "n" columns representing specific government activities, current production inputs can be distinguished; these include the purchase of paper and of electricity and the formation of capital both in the entity, either as durable goods or as fixed reproducible capital, and through the accumulation of inventories of intermediate or finished products.

In addition, the goods and services produced in government agencies can be broken down for the economy as a whole into those designed to satisfy the intermediate requirements of other economic sectors, those designed to meet the final consumption needs of families, and those devoted to the formation of production capacity or, more concretely, to capital formation.

/This concept

This concept of capital formation for the economy as a whole is being considerably broadened, and it is already usual to include in it scientific and technological research services and also services which directly influence manpower training, thereby creating a new concept of "human investment".

In brief, as in any other economic activity, there are two concepts of capital formation in so far as it is related to government activity: (a) capital formation in the government agency itself; and (b) characterization of the service produced by the agency as a consumer or investment service, from the point of view of the economy as a whole. For example, technical training is a service which contributes to increasing capital formation in the economy as a whole, and at the same time the agency producing this service incidentally accumulates or utilizes certain specific investments in the form of buildings and equipment.

4. Programme and performance budgeting

The United Nations has pointed out that performance budgeting is a system in which the emphasis is laid on what a Government does rather than on what it acquires. A Government's acquisitions, such as personal services, supplies, equipment, transport media, etc. are, of course, no more than the means whereby it carries out its functions. A Government's actions in the fulfilment of its functions may consist of building roads, schools and hospitals, training soldiers, fertilizing land, dealing with and resolving problems, issuing permits, holding exhibitions, preparing reports and any one of the innumerable things that may be cited. What is not made clear in the traditional budget systems, however, is the relationship between what the Government acquires and what it does.^{4/}

The technique of evolving a system of programme and performance budgeting that would specify outputs and inputs in accordance with the present definition, is still incipient and no standard scheme has been devised for its application. The countries that have been using it for some time and those that are just beginning to do so do not always adopt the same form of presentation for their budgets and the classification of items tends

^{4/} See Presupuesto de programas y de ejecución por actividades, op.cit.

/to differ,

to differ, but the underlying principles coincide. Typical examples are the budgets of the Philippines, Puerto Rico, the United States and Vietnam.

The United Nations has carried out studies and made recommendations to facilitate the preparation of programme budgets and standarize their presentation.^{5/}

The following basic definitions were given:

Function: extensive division of the Government's total organized effort: national defence, education, public health, agriculture;

Programme: subdivision or large segment of the effort comprised in a function: primary education, secondary education, higher education, technical education;

Activity: total labour division comprised in an operational programme, including the specification of what should be done to attain the aims of the programme;

Project: division of labour in an investment programme undertaken for purposes of capital formation.

The introduction of programme budgeting in Bolivia, Colombia and Cuba has followed the lines laid down in the United Nations recommendations, although the definitions have been adapted to the conditions prevailing in each country and to the problems that such a radical change in prevailing habits and standards is bound to raise.

In Bolivia and Colombia,^{6/} each function contains sub-functions, and the programmes are divided into sub-programmes and activities. In Colombia, the budget is presented in two parts: (a) by functional programmes and sub-programmes; and (b) by investment programmes and projects. The term "project" is reserved for activities leading to capital formation. In Bolivia, on the other hand, both types of programme are presented as part of the same budget.

Cuba's budget for 1960^{7/} envisages programmes as a body of activities conducing to a common aim, and assigns the term project to a specific activity. It also includes the concept of sub-project to indicate an

5/ These recommendations are contained in a working paper by the United Nations Financial and Fiscal Branch entitled "Manual de presupuesto por programas".

6/ Presupuesto de Bolivia, 1961, and Manual de Preparación del Presupuesto Bogotá, 1960.

7/ El presupuesto programa, Havana, 1960.

activity that forms an integral part of a project. The Cuban budget does not separate functional from investment programmes; on the contrary, each programme of activities includes all the consumption and investment expenditure involved in its implementation. The Cuban budget act makes no distinction, as does that of Colombia, between the two concepts, since any purchase of equipment or act of construction that is an individual requirement of a programme is budgeted together with it; conversely, general purpose investments - for road-building, for instance - are budgeted as independent programmes or projects.

5. Advantages of the new techniques

The analysis made in section 2 shows the value of the programme budget as a means of rationalizing public expenditure and as a programming instrument. It should be stressed that, even when the objectives of the production of goods and services by Government bodies are not based on the explicit programming of the economy as a whole, the programme budget has the great advantage of promoting or stimulating the rationalization of public expenditure in order considerably to raise the productivity of governmental operations. This idea may be illustrated by pointing out that a programme budget would enable problems relating to maximum yield and specific lines of production to be analysed and settled, whereas in the absence of a programme, it is impossible to say whether the Government is really dealing with the most urgent matters or those that are of prime importance for the country's economic development. Nevertheless, this instrument is capable of giving its best results when it is combined with a definite programme for economic and social development.

Thus, the advantages of a programme budget should be summarized in broad terms, in other words, from the standpoint of the efficiency of the public administration and from the specific angle of the formulation of a planned fiscal policy for economic and social development.

(a) Efficiency

(a) Efficiency of the public administration

Programme budgeting makes it easier to evaluate the productivity of the public administration's work, since it indicates what funds are spent and utilized to obtain specific lines of production. It supplies the offices responsible for the rationalization of administration and procedures with the necessary information for carrying out studies and taking decisions in order to raise productivity and, in the same way, draws attention to the duplication of work, unnecessary expenditure and dissipation of resources, which are common in public administration. It enables a technical analysis to be made of the advantages and drawbacks of grouping or separating activities in different administrative bodies, in accordance with the conditions peculiar to each country, the advantages of specialization or returns to scale.

In other ways, this type of budgeting reveals the lack of co-ordination between complementary or coincidental activities with a given aim, facilitates the assignation of specific responsibilities by administrative units and finds a logical solution to the problem of hierarchy or co-ordination in each case. In this respect, the basic analyses required for the establishment of a programme budget often show that it is necessary for the administrative agencies of the government to be reformed.

Moreover, it should be pointed out that budget preparation practices gradually accustom the relevant officials to look ahead and plan, and, in the offices of each administrative unit as well as in the central budget office, a body of information is assembled which helps to establish or improve a sound method of integrated planning.

(b) The formulation of tax policy

Programme budgeting supplies the information that is essential for graduating public expenditure more precisely in line with tax policy. For instance, it makes it possible to quantify the impact of the variation in public expenditure on the rest of the economy, and indicates the economic sectors that are particularly influential, as regards both immediate and induced effects.

: /As a

As a result, a more realistic appraisal can be made of the change involved if, for instance, foreign exchange expenditure were to be reduced to a given extent; at the same time, more information would be available from which to assess the total utilization of the funds originating from an increase in the Government's activities. Thus, the measures could be applied gradually, and in order to militate against the excesses which are so frequently committed in practice, when, owing to a shortage of resources, such activities are curtailed more than they need be, or when, in applying the requisite incentives, activities are overstimulated in relation to the resources available.

Moreover, these measures act as a preventive against the arbitrary decisions to which traditional budgeting leads when funds for specific expenditure are reduced or increased regardless of the fact that they are partial inputs in a production activity that should be considered as an indivisible unit up to a certain extent at least.

(c) The programme budget as a planning instrument

The programme budget makes it possible to determine exactly what the Government has to do to meet its development aims and targets. It translates the direct participation of the Government in the programme into terms of specific decisions, and becomes the operative instrument for short-term governmental action. In this sense, it may be said that the programme budget is a veritable short-term plan, since it relates to the Government's direct sphere of action for the attainment of medium- and long-term objectives.

It therefore assumes key importance, since it is the only means of ensuring that the Government will allot resources in accordance with the responsibilities it has undertaken, in order to provide the goods and services required by private activities, to attain the social targets set, and to carry out the investment projects for development purposes that may constitute the bases of the plan outlined.

/6. Stages

6. Stages in the introduction of programme budgeting

The institution of programme budgeting calls for the revision of the whole administrative organization and the modification of the machinery of formulation, execution and supervision. It also involves intensive technical work in that activities must be defined, units of measurement for production and inputs specified, the large variety of inputs and factors classified and quantified by projects and programmes of activity, and, lastly, the administrative duties of implementation and co-ordination determined.

When this work is viewed within the framework of the analysis chart given in section 3, and in relation to the traditional practices of the public administration, the shortage of technical personnel and the methods currently used by the government, it is only too clear that the system will have to be introduced in stages and that time and first-hand experience will be required to perfect it.

In this connexion, a brief reference should be made to the introduction of the system in Bolivia, Colombia and Cuba. The governments of these countries, with the collaboration of the United Nations advisory groups, began to set up working teams in the planning and budgeting offices. Intensive training courses were also organized for the different categories of officials connected with the budget mechanism, and detailed manuals of instruction were prepared.

The first steps were taken to determine the activities and programmes in those ministries whose functions are most closely connected with economic and social development and which, moreover, lend themselves most readily to the immediate introduction of this technique.

As is natural in the early stages, an endeavour is made to identify the programmes of activities within the functions assigned to each of the large administrative units already in existence, and to assemble the necessary inputs of goods, services and factors for each one, in accordance with a standard classification. In the case of certain activities, information may be collected from the outset which enables

/a fairly

a fairly close estimate to be made of the sum and volume of inputs and production; in other cases, the programme is completed by the figures for the expenditure budgeted, but experience indicates that considerable progress may shortly be made towards a more precise specification of the component elements in each programme. The experience of the three countries named is illustrative of this progress.

In fact, in Colombia's case the 1961 budget contains a detailed classification of programmes of activity which exactly correspond to a four-year plan in all respects connected with investment and the rendering of economic and social services. Colombia first applied the technique under discussion in its 1960 budget in the case of the Ministries of Agriculture, Public Works, Mines and Petroleum, Development, Education and Public Health. It is of interest to stress that the system was very well received by Congress, since a statement was made in the Chamber of Deputies to the effect that its Committee IV "considers that the new method of presenting the budget represents a laudable endeavour to furnish Congress with a more complete analysis of the distribution of public expenditure, which will undoubtedly be of timely assistance to it in its legislative work". In the course of the parliamentary debate, no amendments were introduced in the allocations proposed by the Executive for each programme and, similarly, the sum total of the transfers approved was the smallest in recent years. Neither did any difficulties arise in relation to the liquidation, execution and control of the budget prepared in accordance with the new technique.

In Colombia's 1961 budget the programme and performance system was extended to all Ministries and government departments. Expenditure was systematically classified, and the number of items was considerably reduced, with the consequent advantages for the purposes of analysis and for the simplification of book-keeping and auditing procedures. In conformity with the provisions of Decree N° 1066, the Colombian budget is presented in two parts, one for current and the other for investment expenditure, and is required to include the allocations established for each year of the four-year plan for public investment. Thus

/Colombia has

Colombia has converted the official budget into the instrument for the implementation of the socio-economic development programme, in so far as it is directly incumbent upon the Government. Budgetary organization and reform is being extended to national autonomous institutes and to departments and municipalities. Act N°15 (1959) established norms for the preparation of the budgets of national autonomous institutes, which were presented together with the 1961 national budget, and were divided into the same two parts - current and investment expenditure - and broken down by programmes of activity. The programming agencies and the budget office have encouraged the introduction of the new technique in Colombia's departments and municipalities. Norms have been recommended to them for the standardization of procedures and the systematization of their budgets, and many departments have already made progress in the preparation of programme budgets.

In Bolivia, the 1961 budget incorporates practically all the Ministries into the new system, the decentralized agencies being the sole exceptions.

Programme budgeting was introduced in Cuba in the second half of 1960 for the whole of the central administration, by virtue of the powers with which the Council of Ministers invested the Central Programming Board (Junta Central de Planificación - JUCEPLAN) under the terms of the Act whereby the latter was created. In article 3 (g) of Act N°757 (11 March 1960), the following function was assigned to JUCEPLAN:

"To establish norms for the preparation of the Central Administration Budget and the Consolidated Budget of the Public Sector, indicating the allocation for each agency and the distribution of these resources between current expenditure and investment, and to adopt, with such amendments as it may deem appropriate, the draft budget prepared by the Technical Secretariat, in accordance with article 9 (i), as an indispensable prerequisite for submission of this budget to the consideration of the President of the Republic and the Council of Ministers".

The same Act, in establishing the organizational structure of the Technical Secretariat of JUCEPLAN, sets up the National Budget Office

/(Oficina de

(Oficina de Presupuesto del Sector Público) as a dependency of the National Programming Department (Dirección Nacional de Planificación).

The ample powers granted by the Act to the Central Programming Board (Junta Central de Planificación) enabled it to make an immediate transition from the traditional budget system to that of programme budgeting, so that in 1961 all public bodies are following the latter system.

7. Changes in the mechanisms for the formulation, execution and control of budgets

(a) Budget formulation mechanisms

The changes in budget formulation mechanisms are of such a nature that they might be described as replacing routine by a rational system of postulation of objectives and targets and calculation of requirements. Under the programme-budgeting system, every requirement in respect of manpower, materials and supplies, equipment, works, etc., must be justified as needful for the attainment of an objective. No item of expenditure is approved simply because it was budgeted for in previous years. Every year justification must be provided for the applications for allocations in their entirety, not for increases only.

A corollary of these essential characteristics is the necessity for close liaison and collaboration between budget offices and programming agencies, and the desirability of the programme budget's being prepared by each of the bodies responsible for its execution.

The mechanism linking budget offices and programming agencies is not the same in all countries. The forms it takes are influenced by the special conditions prevailing in each country, its customs, the circumstances attending the introduction of reforms and, in addition, the need for proceeding experimentally and by stages, since the system was so recently established. Some interest may attach to a brief account of the basic features of the methods instituted under the legislation of Bolivia, Colombia and Cuba.

/The programming

The programming agency in Bolivia is the National Programming Board (Junta Nacional de Planeamiento), created in October 1960, which is responsible for drawing up the long-term development programme and the programme for public investment. The fiscal budget is in the hands of the Budget and Expenditure Department (Dirección General de Presupuestos y Egresos), a dependency of the Ministry of Financial Affairs. Co-ordination between programming and budgeting is effected through the Financial Programming Department (Departamento de Programación Financiera), a body dependent upon the National Programming Board. It is therefore incumbent upon this Board to co-ordinate the development programme and the budget. Every year, moreover, the Board submits to the President of the Republic a proposal for the level of public expenditure and its distribution by Ministries and by programmes, the Budget and Expenditure Department being responsible for preparing the draft fiscal budget.

Colombia's central programming agencies are the National Council of Economic Policy and Programming and the Administrative Department of Programming and Technical Services. The former is a top-level committee composed of Ministers and under the chairmanship of the President of the Republic himself. In the field of programming, its chief function is to lay down the general lines which programming policy should follow. The Administrative Department is responsible for formulating the economic development programme in accordance with the basic principles established by the National Council. As in Bolivia, long-term programme implementation and the drafting of the investment programme are incumbent upon the programming agencies. The budgetary function, on the other hand, is discharged by the Ministry of Financial Affairs and, specifically, the National Budget Department.

Co-ordination between programming and budgeting is effected through several instruments. In the first place, the central programming agencies, in consultation with the central budget office, establish a provisional distribution of public expenditure by Ministries and main programmes, which they must take into account in drawing up their budgets. Secondly, the preliminary draft budget is discussed at joint

/meetings of

meetings of the senior staff of the budget office and the central programming agencies, as the outcome of which recommendations may be submitted to the President of the Republic with the aim of ensuring that the budget faithfully reflects the Government's plan of action.

The principle of co-ordination between the programming and budget offices was put into practice specifically and in full detail in the formulation of the 1961 budget. The four-year plan for public investment and economic and social services in 1961-64 prepared by the programming agencies was incorporated into the official budget for 1961, since the items in this programme budget for the current year are those of the first year of the four-year plan.

In Cuba, under the terms of Act 757 (1960), the programming and budget functions are combined in a single agency, and are discharged by the National Programming Department, which is a dependency of the Central Programming Board. In this country the formulation of short-term programmes is fused with the formulation of budgets. But although the National Budget Office and the Planning Office (Oficina de Formulación de Planes) are dependencies of the National Programming Department, provision is made for internal instruments of co-ordination between long-term programmes and the budget. The Committee of Ministers constituting - very much as in Bolivia and Colombia - the Central Programming Board fixes provisional ceiling expenditures for the various functions and main programmes, which the programming agencies must keep in view in preparing their budgets. Once the draft budget is ready, it is discussed by the National Programming Department, where the programming and budgetary points of view are once again co-ordinated.

The principle of decentralization exists in all three countries in the sense that programmes and projects are formulated by each of the individual bodies responsible for their implementation. Similarly, a mechanism is established for the adoption of decisions and the submission of reports by these agencies to superior and collateral bodies, and vice versa, so as to ensure that the activities proposed in the budget represent integral parts of a co-ordinated programme rather than forming a mere aggregation.

/Cuban legislation

Cuban legislation establishes a clear-cut line of demarcation between the mechanisms for financing and for programming public expenditure. The former is the responsibility of the Ministry of Financial Affairs and the latter is the exclusive province of the programming offices. Any incompatibilities which may arise between the projections of financial resources prepared by the Ministry of Finance and JUCEPLAN's estimates of requirements for programmes and projects are discussed by the Committee of Ministers which is also concerned with channelling the policy of the programming agencies. JUCEPLAN is empowered to propose new financing funds, the source of which might be new tax projects, profits targets for State enterprises and agreements with the Central Bank.

(b) Budget execution mechanisms

The changes that must be introduced in budget execution procedures are just as important as those affecting the process of formulation. The commonest of the problems militating against the efficiency of traditional budget implementation procedures might be summed up as follows:

- (i) The existence of numerous and complex expenditure controls which dilute responsibilities and hamper the application of a programme;
- (ii) Inflexibility of action, reflected in the need for legislation to modify secondary and purely formal aspects of the budget which is often unnecessary for the fulfilment of its fundamental objectives;
- (iii) Inflexibility with regard to unforeseen expenditure or supplementary programme allocations;
- (iv) Slowness of payments procedures which compels supplier enterprises to charge higher prices; and
- (v) Systems of purchasing materials which are so complex as to be slow and costly.

One of the main advantages of the system of performance budgets is that it involves a clear definition of the responsibility of each body. It indicates the work that is to be done and who is to do it, on the basis of the principle of delegation of responsibility. Every

/chief of

chief of programme, activity or project, as the case may be, must be given a free hand with the management of the funds assigned to him, this being the only way in which he can be made responsible for the execution of the work. Another important problem connected with the execution of the budget is that relating to the rigidity of budget allocations. This rigidity is extreme in the traditional budget system, by virtue of the very fact that control is based on the checking of expenditure against a list of resources. A generally detailed classification is prepared and it is understood that budget appropriations constitute authorization to purchase only those goods and services included in each item. If the appropriations for the purchase of certain goods are exhausted, surplus funds cannot be used for other purchases without completing a series of formalities which, in some cases, might have to be embodied in legislation.

This lack of flexibility is considerably reduced by the programme budget method because funds are appropriated in relation to specific targets although they are always broken down into a small number of items which include different types of funds. The responsibility of public expenditure classifications for the lack of flexibility in the execution of the budget should be stressed. Its execution is facilitated by a classification which meets the following requirements: (a) it allows for unrestricted selection of the type and amount of funds required to achieve the target laid down in the budget, which implies that budget funds must be broken down into as few items as possible; (b) it should serve as an instrument to determine government demand, which implies that in classifying expenditure detailed information should be provided on the type of funds to be obtained; (c) it should supplement the classification of expenditure by programme and activity, which means that the person responsible for the classification should indicate the origin of the sector which produces the goods or services concerned, as their destination is shown by the programmes and activities. The classifications usually employed in traditional budget systems do not meet any of the above specifications. While the classifications are set out formally, the criterion of classification is a mixture of the

/origin and

origin and destination of funds which precludes determination of government demand and they cannot be readily applied to the programme budget method.

The practical method conducive to flexibility in these aspects is to establish a main classification and a sub-classification which separates the principal categories. Budgeted expenditures in the main categories should be applied to the funds or destination specifically provided for, while the appropriations in respect of sub-divisions can be transferred from one to another within the same category, which means that they are only specified for the purpose of programme and cost studies.

Rigidity in the execution of the budget derives not only from an inadequate classification of expenditure but also from the lack of authority of those in charge to change the budgetary appropriations in the light of new developments. Authority to change budgetary appropriations depends upon: (a) the extent to which the items are set out in detail in the budget when it is adopted either by an act, a decree, a resolution, etc.; (b) the legal instruments authorizing reappropriation of funds from one programme or activity to another or between items or articles in the classification of expenditure; (c) the power to supplement expenditure.

With respect to the first point, the legislation governing the budget of Colombia is approved at the programme, sub-programme, activity and project level. Under the Cuban system, statutory approval of the budget is only at the programme level, the projects forming part of each programme being approved by resolution of the senior official concerned, i.e. the minister, chairman of the autonomous organ, etc.

With regard to the second point, the Colombian system provides for machinery for the "transfer of appropriations" which the Government is authorized to effect when Congress is not in session, up to 10 per cent of the total appropriations originally voted by the legislative body for each government department. These transfers are carried out with the approval of the Cabinet. Under the Cuban system, transfers or

/reappropriations of

reappropriations of funds as between programmes must be authorized by an act, and by a ministerial resolution if they affect projects within a single programme. However, reappropriations may be authorized by ministerial resolution up to a maximum of 20 per cent of the funds earmarked for the purchase of equipment and supplies in respect of various constituent programmes of the same higher executive body, i.e. a ministry, an autonomous body, etc.

As for the third point, Colombian law provides for machinery which allows the Government to make additional funds available when Congress is in recess. These additional funds may not exceed 10 per cent of the total budgetary appropriations, although in exceptional cases the limit may be increased to 25 per cent. In Cuba, for the same purpose of making provision for unforeseen expenses or errors in programme cost estimates, the minister or senior official of an organ may ask for the inclusion in the budget of an overall amount for unspecified expense (Heading 11). The Minister may thus make additional funds available as needed for programmes and projects. In using this overall amount, the expenditures financed by it must be charged in accordance with the general classification of funds, programmes and projects. In this way, the overall allocation is merely an entry in the Budget and cannot appear in the settlement of the accounts as such, except in the case of expenditures classified as secret.

(c) Budget control

The structure of the traditional budget system is not such as to permit control of the efficiency and fulfilment of the targets that the appropriation of budget funds is intended to achieve. The programme budget method, while retaining the necessary formal controls, gives priority to checking the progress of a project as well as its cost. This cannot in fact be done in the early stages of the gradual establishment of a programme budget, in other words not until the programmes and projects indicate physical output targets and the corresponding inputs.

/Once the

Once the stage of fixing physical targets and determining unit costs has been completed, control of the amount of expenditure by type of funds is less important and becomes merely a means of information. On the other hand, control of the amount of expenditure in relation to targets and projects is of major importance in the programme budget method. Its purpose is twofold: (a) control of the degree of flexibility allowed in the execution of the budget; and (b) control of programmes and projects whose targets cannot be quantified.

The budget control methods of Colombia and Cuba are similar. They differ only in those aspects directly related to the organizational structure, e.g. the location of the budget office and the degree of prior internal and external control, which have been considerably simplified in Cuba. In both countries, control of the fulfilment of targets is the responsibility of the senior official in charge of each programme or project and it is his duty to submit a monthly report to the sectoral budget office, which spot-checks it for accuracy. The sectoral budget offices report in turn on the fulfilment of targets to the central office where they are analysed in co-operation with the central planning office. Reports on target fulfilment are analysed in the first instance within the respective higher body - e.g. a ministry - and for this purpose the work is done jointly by the sectoral offices for planning, for the budget and for rationalization of the administrative structure. This internal analysis in the sectoral offices makes it possible to go beyond control merely for purposes of information and to examine more thoroughly the causes of any discrepancy between the budget and its execution. The same offices will in future conduct efficiency controls, i.e. analyse unit costs.

This decentralized control of the budget, although always subject to central supervision, has the advantage of making available to those in charge of executing programmes periodical and direct information on the progress achieved in the activities for which they are responsible and on the problems and factors affecting these activities.

/Programme budgeting

Programme budgeting will really bear fruit when the control schemes start to function properly, a stage which cannot be achieved until after a long period of training of staff qualified to perform the new functions and until each country has gained experience in the application of the system.

8. Reorganization of the budget offices

Budget offices in Latin American countries have traditionally been administrative and accounting units. In recent years there has been a marked trend towards technical improvement in these offices. However, the institution of programme budgeting and, in general, of machinery for greater efficiency in economic and social policy decisions calls for reorganization of budget offices and for an appreciable increase in their technical capacity.

The advisory groups have co-operated with the Governments of Bolivia, Colombia and Cuba in the reorganization of their budget offices as required by the introduction of programme budgeting.

The Bolivian Government recently reorganized its offices by creating the Department of Budget and Expenditure (Dirección General de Presupuesto y Egresos), a direct subsidiary of the Ministry of Financial Affairs responsible for administering the budget and the treasury. The new department consists of three units: (a) Budget Studies and Programming; (b) Budget Operations; (c) Administrative Rationalization. The first is responsible for preparing the programme budget in co-operation with the relevant offices of the various ministries and for preparing the studies and statistics required by the planning organ. The second unit directs and supervises the execution of the budget, while the third unit concerns itself with organization and methodology. In addition, a group of budget analysts has been formed to conduct on-the-spot supervision of the execution of the budget and to check on the progress of programmes.

In Colombia, the National Budget Department (Dirección Nacional del Presupuesto) was reorganized under Decree 1,124 of 1960 and is

/responsible for

responsible for enforcing legislation relating to the preparation, execution and supervision of the progress of national budget programmes and for cooperating in the preparation of plans for the financing of the public sector. This Department consists of three sections: budget programming, budget administration and public credit. It also includes a legal unit. The budget programming section advises and lays down standards for the formulation of public expenditure programmes, plans the structure and presentation of the draft budget and carries out research on public finances. The budget administration section calculates income and revenue, prepares the "annual budget bill" in respect of income and revenue and the "appropriations bill", and supervises and checks the movement of appropriations and of all operations related to the execution of the budget. The public credit section administers the internal and external public debt and conducts market studies in connexion with the internal public debt. The budget offices in the various ministries have sections dealing with the execution and control of the cost budget and with disbursements.

In Cuba, the budget structure was completely reorganized towards the middle of 1960. The distinctive feature of the new arrangement is the division between two organs of the work traditionally concentrated in a single office. Everything relating to the expenditure set forth in programmes and projects has been transferred to a budget office attached to the planning organ, while everything concerned with financing, collection of revenue, accounting and control is done in an office of the Ministry of Financial Affairs. The budget offices of the various ministries are also an integral part of the sectoral planning system located in each of these units. The structure of the planning organs is similar to that of the central body, since they usually consist of four departments: planning, budget, statistics, and administrative rationalization.

III

ADMINISTRATIVE STRUCTURE FOR PROGRAMMING

1. Relations between administrative structure and programming

One of the essential requisites for the success of efforts in the direction of economic development programming is the availability of efficient administrative mechanisms for the formulation, implementation and supervision of programmes. It is natural that at present public administration in the Latin American countries should not be efficaciously adapted to such ends, since programming has only very recently become a deliberate aim, and the organization of administration is an inheritance from the past or has gradually taken shape without due regard to the objective in question.

Public administration is usually characterized at the present time by highly complicated procedures, an unsatisfactory grouping of activities, duplication of functions, low productivity, vague demarcation of responsibilities and the absence of co-ordinating agencies.

Most of these defects are a legacy of the growth pattern of administrative organization itself. As a general rule, public administration has not developed as the outcome of an overall conception of the expansion requirements of Government activities, but rather as the consequence of a number of unintegrated initiatives, sometimes mutually incompatible and sometimes duplicating functions and agencies already in existence.

All this is reinforced by a marked tendency for the control of public activities to be based mainly on formal accounting procedures, as indicated in section III of the present report.

Naturally, the determination to programme State activities meets with no response from the types of organization described, comes into conflict with them and, in the final issue, lapses into inefficacy unless it succeeds in changing them. Therefore, the efficient and realistic programming of activities implies the reform of administrative organization. The mere fact of programming entails deliberate control of the structure and growth of administrative units and the choice of a method of programming enables that structure to be specifically defined.

Where no programme exists, the defective structure of the components of public administration tends to be perpetuated, inasmuch as the problem

/of studying

of studying activities, quantifying the services rendered and determining their costs does not arise. Thus, the cost of maintaining duplicated or useless activities and unsatisfactory groups of activities does not become apparent and there are no bases for relative costs comparisons. In contrast, programming and the introduction of a system of programme and performance budgeting must necessarily involve changes in administrative organization.

For the traditional budgeting systems, the organization of administration is an accepted fact, because they are adapted to it; on the other hand, programming and programme budgeting necessitate, in the first place, the postulation of lines of action, secondly, budgeting for these and, lastly, proposing an operational organization which makes it possible to put them into effect. In other words, the administrative organization is, up to a point, a consequence of Government programmes and of the way in which they are implemented.

2. The conception of central co-ordinating agencies and decentralization of the preparation, implementation and supervision of programmes and projects

One of the basic aspects of the organization of administration for programming is constituted by the degree of responsibility and the terms of reference that may be assigned to the programming agency, and the measure in which these responsibilities and terms of reference are to be shared by public administration as a whole. Specifically, two alternative patterns may be considered: (a) a single agency, of very broad scope, which entirely absorbs the work of formulating programmes at all levels; or (b) a small central agency of a high technical standard, responsible for co-ordinating and guiding the programming process, and assisted in this task by a series of offices operating at the various levels of national administration.

In this connexion, it should be borne in mind that a programming system must fulfil certain requisites if it is to be efficient. It must be capable of producing programmes which are, firstly, well-integrated, secondly, realistic and, thirdly, familiar and thoroughly acceptable to those responsible for their implementation.

/The first

The first of these requisites implies the need for co-ordination of the programmes by a central agency; the second leads to the postulate that if programmes are to be realistic they must be formulated by those who are going to put them into effect, and who are thoroughly acquainted with problems with which they are daily confronted, whereas detailed knowledge of each of the sectors of an economy cannot be concentrated in a central agency. Like the foregoing, the third requisite suggests that the programmes should be formulated by those who will implement them, since in this way each participant will discover and recognize in the programme some contribution of his own.

Thus, in order to meet the requisites listed, the programming system must centralize, at a given level, the establishment of the basic guiding principles to which the programme should adhere, and decentralize the actual formulation and implementation of its component plans. The guiding principles referred to emanate from the central body in the form of overall programmes or preliminary projections, although even in the formulation of this preliminary overall programme use is made of the knowledge and experience of those working at the decentralized levels of the programming apparatus. At each of the various administrative levels, the appropriate agency submits the programmes formulated by their future executors for consideration at the next level, and at each stage of their upward progress they are co-ordinated with one another, this process continuing up to the central programming office, where the programme is co-ordinated at the national level. In other words, the central programming agencies prepare instructions and aggregate allocations of resources for the ministries and decentralized agencies through the sectoral programming offices; these in turn give the instructions more precise and concrete form on the basis of their knowledge of the sector, and transmit them to the divisions, who in turn pass them on to the departments, and so on until the smallest administrative units are reached.

Hence it can be deduced that instructions for the production of programmes are issued at all levels, but that their measure of generality, precision and even of substantive content differs. The programmes are

/co-ordinated in

co-ordinated in the same way at all the administrative levels. The substantive aspects which must be co-ordinated in face of the decision to build a hospital, for example, relate to problems as specific as those of adjusting the capacity of the operating theatre to the number of beds available and the general facilities installed. On the other hand, plans for different hospitals are co-ordinated in the Ministry of Health at a more general level, and the aspects taken into account include the supply of medical services in relation to the requirements of each area, the availability of doctors and so forth. At each level of administration a similar process takes place - centralization of guiding principles and decentralization of the formulation of programmes - but it varies as regards the content of the aspects co-ordinated and orientated.

The same principles are applied in the implementation and supervision of plans, programmes and projects. The supervision of health plans, for example, is centralized for certain purposes in each hospital unit, and on the basis of the submission of progress reports, the Ministry can centralize control of other more general aspects, so that finally the central programming agency may supervise the carrying out of the overall health programme at a still higher general level.

These problems and the method of solving them determine the administrative structure of the programming apparatus, which in Latin America is being established just as described above on the basis of small, but highly-qualified central programming agencies, and sectoral programming offices, responsible for guiding and co-ordinating the formulation of programmes by sectors, which are administratively independent of the central body.

In Bolivia, as in Colombia and Cuba, the criterion adopted has been that of creating small central programming agencies, whose function is to guide and co-ordinate the final formulation of programmes which must in their turn be presented already formulated by the sectoral programming offices.

/An important

An important aspect to which it is worth while drawing attention is that of relations between the sectoral programming offices and the central office. As a rule, it has been considered in practice that the sectoral programming offices should not be administratively dependent on the central office, for the following reasons: (a) the central office would become a very cumbersome and unwieldy piece of bureaucratic administrative machinery; (b) ministers and heads of agencies might be somewhat mistrustful of their corresponding sectoral programming office, and regard it as a form of State interference; and (c) the sectoral offices would have formal but not effective authority, inasmuch as they would not have ready access to the information required for the production of programmes and the control of their implementation.

On the other hand, opinion is in favour of the creation of sectoral programming offices which are administratively dependent on the ministries, autonomous agencies, etc. Nevertheless, as close co-ordination between the sectoral offices and the central programming agency is indispensable, relations of functional dependence are generally established between the two types of agency. These functional relations ordinarily consist in the central agency's power to determine the organization of the sectoral offices, draw up their programmes of work and research and fix the dates on which they must submit their reports.

3. Relations between programming, statistical and budget offices

All this suggests the desirability of bringing fairly detailed consideration to bear on the most advisable relations between the central programming agency and the central statistical and budget offices.

A programming system must necessarily incorporate a close relation between the functions of postulating courses of action, assembling and processing statistics and drawing up budgets. The need for this close liaison is based on the principle that programming should not constitute a compulsory act on the part of the administration, but, on the contrary, a normal activity carried out by means of a co-ordinated division of labour enabling programmes to be formulated with the minimum of effort.

/This implies

This implies "planning" the system, indicating to each agency what share it must take in programming and in which process it must participate, and clearly defining terms of reference so that responsibilities may be properly assigned. Fundamentally, it is a question of establishing a programming "routine", so that plans may be built up by the central and sectoral programming offices on the basis of the parts constructed by the administrative units responsible for the work of implementation.

In this context, two basic problems arise: (a) that of the periodic and systematic collection of the background data required for the formulation of programmes; and (b) that of how to promote the formulation of programmes and guarantee their implementation. The brunt of the first must be borne by the central and sectoral statistical agencies, and that of the second by the central and sectoral budget offices.

It is as well not to underestimate the risk that many programming offices may not in practice act as such, but may duplicate a good deal of the work that should be carried out by the statistical offices. Again, the central statistical offices collect and process data which bear no relation to requirements for the formulation of programmes. Hence the need for the central statistical agencies to operate in accordance with a work programme approved by the central programming agency or drawn up in collaboration with it, and for the sectoral statistical offices in their turn to follow work programmes prepared in consultation both with the central programming and statistical offices and with the corresponding sectoral programming office.

As regards the budget, the problem is much the same. If no close relation exists between the programming agency and the central budget office, the allocation of resources for immediate action becomes divorced from the provision made for long-term objectives. In other words, programmes run the risk of degenerating into mere research work rather than instruments to pilot Government action. As the formulation of the budget is a process so indisseverably linked to the formulation of annual programmes, a cleavage between programming and budgeting is in the last analysis an artificial division between the formulation of annual and long-term programmes, and since the objective of the latter

/is to

is to serve as a guide to the former, the futility of programming in such conditions is obvious.

The relation between programming and budgeting may assume a variety of forms. The central programming office may be empowered to take part in the internal discussion of the budget, or the latter may be transmitted through it to the President of the Republic. It may also have authority to make recommendations, or, alternatively, prior approval of the budget by the central programming office may be required. Lastly, there is also the formula whereby the preparation of the budget in respect of the determination of expenditure and investment, as well as its control, is administratively incorporated in the central programming agency.

To sum up, if the statistical, programming and budget offices are to form a co-ordinated group, they must have a homogeneous conception of the programming process.

4. Structure and position of the central and sectoral programming offices

The need to create central and sectoral programming agencies has now been established, and the time has come to analyse their possible positions at the various levels of administration and their internal structures.

The central programming organization may be conceived of at two levels - one political and the other technical. This differentiation is useful as a means of demarcating the problems to be tackled. The function of the political entity is that of laying down guiding principles for the formulation of economic and social development programmes in accordance with the Government's overall policy. It fixes the political content of the programmes. This body, which is generally small, is usually composed of high-ranking administrative officials responsible for important sectors of the economy, and of representatives of the political authorities. In the cases of Colombia, Bolivia and Cuba, the political entity is under the direction of the

/President, the

President, the Vice-President and the Prime Minister, respectively, by which means the central programming organization is kept at summit level. This political body may also play an important role in settling differences connected with problems arising out of short-term action.

A central programming office is the indispensable complement of the political body; it is in reality the operational organ for the construction of programmes. The administrative programming agency takes various forms in accordance with each country's characteristics. As a rule, it includes subdivisions responsible (a) for the formulation and co-ordination of overall programmes; (b) for sectoral programmes, such as those for agriculture, industry, energy, etc.; (c) for the public sector's programmes and in particular for that relating to public investment; (d) for programmes by areas; (e) for economic policy; and (f) for analysis and basic data.

The sectoral programming units are the link between the central programming agency and those sectoral programming offices which are dependencies of the Ministries and other agencies.

The problems of the co-ordination and position of the sectoral programming offices are similar to those already indicated for the central offices. In practice, they may be formed by ministers or by the heads of the agencies concerned.

IV

DIAGNOSIS OF PUBLIC INVESTMENT

1. Technique of public investment programming

From a formal point of view, the basic framework for public investment programming comprises the same stages and factors as that of overall programming, that is, diagnosis, formulation of the plan, establishment of the administrative machinery, implementation, co-ordination and continual revision of the programmes.

The diagnosis is essentially concerned with the following aspects:

- (a) Extent to which the level and composition of public investment in a country constitutes an incentive or an impediment to the economic and social development attainable by that country if it were to apply a planned public investment policy;
- (b) Evaluation of the Government's overall policy and, more particularly, of its policy for dealing with individual investment requirements;
- (c) Degree of efficacy with which projects are implemented and services provided; ascertainment of shortcomings; and
- (d) Effectiveness of the machinery for co-ordinating different programmes or agencies.

The diagnosis of public investment should of course be undertaken as part of the general diagnosis of the economy, as regards both the purely economic aspect and policy evaluation and the administrative machinery for programming. On the other hand, aspects relating to yield or profitability in project implementation and the provision of services are more specific in nature.

The programming of public investment consists in establishing aims and targets for the execution of investment projects and provision of services, and selecting the direct or indirect measures to be applied for achieving those aims. The aims and targets are determined by means of a technical analysis taking into account: (a) order of priority and criteria for the allotment of resources based on the general diagnosis of the economy, the specific diagnosis of public investment and the Government's policy decisions; (b) aims and targets of the overall economic development programme; and (c) investment resources available.

/2. Importance

2. Importance of a sound diagnosis of public investment

The experience of the advisory groups shows that, as the first step in the process of programming, it is of prime importance to make a proper diagnosis of investment within the framework of an overall diagnosis of the country's economy.

The value of a good diagnosis, as a prerequisite for the formulation of a programme, is evident from the following considerations.

It has been found that organizations responsible for the preparation of public investment programmes do not have the necessary information to enable them to determine the total amount of resources involved in projects in course of execution. For this reason, it is hazardous to formulate new programmes since they might reduce the productivity of investment by, for example, lengthening the time taken to carry out old and new works.

Countries usually have programmes or projects that have been prepared by national and international organizations, or are at an advanced stage of study, and whose importance and profitability are obvious from every point of view; hence, there is no reason for postponing the decision to execute them until the details of an elaborate overall programme have been worked out.

There are agencies whose capacity to implement projects or provide services has already reached its limits or which, for lack of technical ability, are unable to initiate new programmes. In such cases, a grant of additional funds would simply reduce productivity, while depriving other agencies of resources that they might use to better advantage.

It often happens that, for lack of co-ordination, no attention is paid to relatively small investments that are essential for the operation of projects already completed. Such investments should obviously be given priority, in order to raise the productivity of the investment system.

The administrative machinery for implementation and co-ordination may be so ineffectual that even the best-conceived plan cannot be carried out satisfactorily. This machinery should therefore first be made to work with a minimum of technical efficiency.

/Lastly, the

Lastly, the financing system may be a little too inflexible, a defect which should be rectified without delay so that programmes may be carried out without interruptions or distortions.

In view of these considerations which, in varying ways, are common to all the Latin American countries, the advisory groups have planned their work so as to lay particular stress and urgency on the need for an economic, technical and administrative diagnosis of what may be termed the public investment system.

An evaluation of this kind, provided that it has all the quantitative and even qualitative data that it needs, would facilitate the adoption of basic decisions for improving the present situation and allotting resources in accordance with criteria that would become increasingly precise as the study of the overall development programme progressed. These decisions would be immediately reflected in the budget for the public sector.

3. Overall diagnosis of the level of public investment

A general diagnosis of the economy and an analysis of its possibilities of growth will indicate the difference between the current level of public investment and the approximate amount needed to attain specific rates of growth that are thought to be feasible if a deliberate development policy is put into effect.

As progress is made in analysing the programming of the overall economy, it will be possible to obtain a more detailed idea of the right composition for public investment; similarly, in the aggregate models, an analysis will be made of specific development hypotheses and the possibilities of financing them.

If the results of these alternatives are compared with the present situation, it can be ascertained how far the actual scale of investment differs from the level to be achieved, and therefore exactly what efforts have to be made or what foreign co-operation is required.

In short, the diagnosis is primarily intended to indentify the factors that determine the present level and composition of investment, with due regard for the aims and targets of a development programme,

/and to

and to evaluate the results of the investment system in so far as the technical aspects of production and co-ordination are concerned.

The most important analyses that should be carried out for this purpose are briefly described below. In this connexion, the general situation of the Latin American countries as regards the technical and economic information available has been duly taken into account.

4. General analysis of past trends in public investment

It is useful to have investment series that cover long periods in order to be able to analyse the fluctuations of public investment in relation to national income, the external sector and total investment.

It is necessary to use series that cover fairly extensive periods because of the nature of the fluctuations, and the time required to carry out the investment projects and disseminate their effects throughout the economy.

Some of the points that are particularly important for public investment programming relate to the analysis of Government policy, the influence of the external sector on investment levels and the role played by public investment in promoting the country's development.

In Latin America, the fluctuations of the external sector often have a marked effect on public investment. It is an established fact that investment increases when external purchasing power rises and contracts when it declines.

This phenomenon reveals itself through two factors in particular: Government revenue and foreign exchange availabilities. Government revenue is variable, since it largely depends on the external sector. As current expenditure is more stable in nature or more inflexible, a shrinkage in Government revenue leads to a diminution of the resources for investment, which, when income is at a high level, tend to increase. In short, the situation is primarily adjusted at the expense of public investment and therefore of the country's economic and social development.

The figures in table 1, which relate to Colombia's four-year public investment programme, give some idea of the magnitude of the ebb and

/Table 1

Table 1

COLOMBIA: PRODUCT AND PUBLIC AND PRIVATE INVESTMENT, 1950-59

Year	Gross national product at market prices	Gross fixed investment (millions of pesos at constant 1958 prices)			Investment coefficient as a percentage of the gross national product		
		Public	Private	Total	Public	Private	Total
1950	14 580.8	502.0	2 221.4	2 723.4	3.5	15.2	18.7
1951	14 969.3	586.0	2 129.9	2 714.9	3.9	14.2	18.1
1952	15 970.1	565.1	2 386.5	2 951.6	3.5	15.0	18.5
1953	16 923.3	746.5	3 144.6	3 891.1	4.4	18.6	23.0
1954	18 150.6	1 048.5	3 678.2	4 721.4	5.8	20.2	26.0
1955	18 882.0	1 244.8	3 658.3	4 903.1	6.6	19.4	26.0
1956	19 391.4	1 245.3	3 441.1	4 689.4	6.4	17.8	24.2
1957	20 019.6	951.7	2 534.2	3 485.9	4.7	12.7	17.4
1958	20 476.8	903.3	2 446.2	3 349.9	4.4	11.9	16.3
1959	21 687.7	1 017.2	2 592.3	3 609.5	4.7	11.9	16.6

Sources: National Council of Economic Policy and Programming; Administrative Department of Programming and Technical Services; Four-Year Public Investment Plan, 1961-64.

/flow in

flow in public investment, chiefly in obedience to fluctuations in the external sector. These figures also show the efforts made by the Government to keep up the level of public investment after the substantial drop in coffee prices.

A comparison between the levels of public and private investment provides other background information from which to assess the Government's policy. It also indicates the proportion of both in total investment and in specific activities, indications that are useful for programming studies.

Table 1 shows that in Colombia the adjustment was greater in private investment, because the contraction in imports coincided largely with this type of investment.

Another historical analysis that should be made relates to the distribution of investment, whether in the provision of social services or in the sectors of production. It often happens that the shortage of funds leads to an increase in the requirements of social services, such as education and public health; on the other hand, when investment is at a relatively high level, a large proportion of resources may be assigned to social services, whereas investment for production purposes is insufficient to promote the development of the economic sectors.

The analysis of past trends should be supplemented as far as possible by statistics on accumulated investment, i.e. the stock of fixed capital. Although this is not easy to investigate, an endeavour should be made to assemble data, at least for specific sectors or services, since they are indicative of production capacity. At times a comparison with population figures may reveal the extent to which specific services are being provided.

5. Distribution of investment by destination

An analysis of investment by the type of goods and services produced and by destination or agency of utilization should be made as comprehensively as possible.

Apart from the statistical and other quantitative data obtained, qualitative information and assessments would be very useful since they

/might fill

might fill some of the gaps in statistics that are so prevalent in Latin American countries.

The analysis should indicate how far the need for economic incentives and primary services is being satisfied in the different sectors of production, and likewise the need for social services; together with other factors, it might indicate the policy followed in each case by the Government, or, in the absence of a policy, make a clear statement on the facts.

At later stages of the programming analysis, these data would help to determine the additional investment of all kinds required and to establish guide-lines or priorities for the allotment of resources.

From another standpoint, an analysis of the structure of public investment is useful because it gives some idea of whether the structure can be changed if necessary to conform to the requirements of a programme. Reference will be made later to the way in which any perpetuity of distribution trends creates special habits and capacities in the agencies with funds at their disposal, to the detriment of those that operate on a smaller scale. In time, the distribution is apt to become less the result of a policy based on an order to priority established beforehand than that of the interplay among the executive capacities of the different agencies.

The analysis of investment by sectors should be supplemented by diagnoses of the individual sectors, since a partial assessment may lead to erroneous conclusions. Tables 2 and 3 should be examined in this respect, since they show the functional distribution of Colombia's public investment in percentage terms, on the basis of data relating to that country's four-year public investment programme.

It appears that the transport sector absorbs a high proportion of public investment, since the figure is 40 per cent for all the public bodies in the country, and, up to 1959, was more than 60 per cent of all investment by national institutions. The concentration of resources in this sector is partly responsible for the neglect of other requirements - such as those of education, public health and economic services for the agricultural sector. It has also led to the accumulation of a

/Table 2

Table 2

COLOMBIA: TOTAL PUBLIC INVESTMENT BY SECTOR OF
DESTINATION, 1959

(Percentages)

Sector	Percentage
Agriculture	10.0
Industry	1.6
Electric energy	13.5
Transport	41.0
Education	3.3
Public health	1.6
Housing	11.8
Communal services	12.5
Unclassified	4.7
Total	100.0

Source: Four-Year Public Investment Plan, 1961-64.

Table 3

Table 3

COLOMBIA: BREAKDOWN OF INVESTMENT IN THE PUBLIC SECTOR BY
SECTOR OF DESTINATION, 1958-60

(Percentages)

Sector	1958	1959	1960
Agriculture	3.0	3.7	3.8
Industry	1.4	0.5	0.6
Electric energy	6.8	4.8	9.9
Transport	60.9	63.6	55.7
Education	3.6	1.4	2.2
Public health	0.7	1.7	2.2
Housing	10.9	8.5	10.7
Communal services	4.6	4.1	7.5
Unclassified	8.1	11.7	7.4
Total	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>

Source: Four-Year Public Investment Plan, 1961-64.

/substantial deficit

substantial deficit in education and public health, and inadequate action in agriculture, the slow growth of which has prevented the country from developing more rapidly. Nevertheless, it cannot be inferred that the requirements of Colombia's transport sector have been satisfactorily attended to, since it is well known that it is in need of further investment. One proof of this is the fact that road density is lower than in other countries with a comparable situation, despite the sizable investment made in the last few years.

Lastly, the sectoral analysis should be complemented by a survey of the Government's direct field of action, since there are, of course, some activities that the private sector does not normally take care of owing to the element of risk involved or their low profitability, or does so on a small scale in relation to requirements. The diagnosis should clarify this kind of situation by identifying the underlying factors in order that it might be decided what measures to adopt in programming, one possibility being to widen the scope of the Government's direct action and another being to promote private activity. One example of this is housing construction.

6. Distribution of investment and capital by area

In addition, the sectoral analysis should be supplemented by a regional analysis, to establish what the government policy has been with respect to capital formation and provision of services in the various parts of the country or, in the absence of such a policy, to give an account of the situation.

In most Latin American countries there are great differences in the degree of development of the various areas, and for some of these areas proposals have been made for more balanced growth, decentralization plans and specific programmes.

The diagnosis should include information to provide the basis for an evaluation of these plans and a discussion of the problems that may arise if there is a change in the regional structure of public investment.

The following basic analyses should be made:

(a) regional distribution of capital supply;

/(b) regional

- (b) regional distribution of investment made during some past period;
- (c) unit cost of various types of investment, by area;
- (d) problems posed by the administrative and financial structure when changes in the distribution of resources are introduced.

This last point is most important, since the most developed areas are also those with the largest resources, either local or derived from participation in national revenue, in virtue of legal agreements or provisions. Consequently any change in the distribution of resources that might be desirable would require prior measures of a political or legislative nature.

There are difficulties of a statistical and conceptual character in preparing the basic information required for this analysis. There are certain works and services that are easy to pin point - for instance those relating to education, health, urban services, etc. - but in other cases, such as investment in transport, it is more difficult to determine the area that benefits from the investment.

Another methodological aspect of this study is the definition of the regional units from the economic standpoint. In addition to this problem of defining these areas, the data that are available in practice generally correspond to regional divisions of a political or administrative type, such as departments and municipalities.

By way of example, table 4 shows the distribution of public investment in Colombia, by departments. It can be seen that the major part of all public investment is concentrated in the departments of Antioquia, Cundinamarca, Caldas and Valle del Cauca, which in 1959 absorbed 58 per cent of all public investment. These departments represent the most developed and populated parts of the country. It is interesting to note from this table that investment by the central government and its autonomous institutes is also concentrated in these departments.

7. Historical analysis of investment by administrative jurisdiction

An analysis should be made of investment according to political or administrative jurisdiction in the country, that is, at the national, provincial or departmental, and municipal levels.

/Table 4

Table 4

COLOMBIA: REGIONAL BREAKDOWN OF PUBLIC INVESTMENT, 1959

(Percentages)

Department	Total public investment	Central government investment a/	Investment by departments and municipalities
Antioquia	17.8	9.4	27.8
Atlántico	4.2	2.3	7.2
Bolívar	3.3	3.3	4.0
Boyacá	4.5	5.9	3.0
Caldas	9.4	11.5	6.1
Cauca	3.3	4.7	1.1
Córdoba	2.3	2.3	2.2
Chocó	1.5	1.5	2.5
Cundinamarca b/	16.8	16.1	17.5
Huila	2.8	4.1	1.0
Magdalena	4.3	5.6	2.7
Nariño	2.6	3.6	1.1
Norte de Santander	4.0	5.5	2.6
Santander	4.0	3.9	5.7
Tolima	5.2	6.9	2.5
Valle del Cauca	14.0	13.4	13.0
Total	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>

Source: Administrative department of Programming and Technical Services, Estudio preliminar de las inversiones públicas en 1959.

a/ Including investment by the ministries and decentralized bodies included in the Four-Year Public Investment Plan.

b/ Including the Special District of the Bogota.

/There is

There is usually a degree of specialization in the forms of investment made by the bodies at these different jurisdictional levels, and their systems of financing are usually also characteristic. Moreover, the analysis will be particularly useful if the jurisdictional study of investment is combined with the functional and regional study.

This type of analysis can be illustrated by a study carried out in Colombia. Table 5 shows a degree of jurisdictional specialization in public investment. The Central Government devotes most of its investment to roads, as do the departments, but it should be noted that whereas the central government is concerned with the national road network, the departments deal with regional and local networks. Decentralized institutes and public enterprises invest mainly in railways, electricity, water supply and drainage systems, and housing. Lastly, the municipalities devote their investment to community services, and also to electricity. This type of specialization means that the composition of public investment can be changed merely by a change in the distribution of resources between these various authorities.

This is in fact what happened in Colombia, as will be seen from table 6, which shows that in recent years there has been a decline in the share of central government bodies in the total gross investment in fixed capital. This was due to two main factors: firstly, a deliberate government policy of increasing the activities of the decentralized institutes and the departments and municipalities, and secondly, a change in public investment, resulting from the unfavourable developments in the external sector, which particularly affected the revenue available for investment by central government bodies. Whereas the budget revenue depends largely on the volume of imports and exports, the revenue of decentralized bodies consists mainly of income produced by their own activities, and the revenue of municipalities and departments mainly of direct and indirect taxes which are not directly affected by the external sector.

In addition, a conclusion of great practical importance in planning can be drawn from table 6. It shows that central government bodies are at present responsible for only a third of all public investment;

Table 5

COLOMBIA: PERCENTAGE BREAKDOWN OF PUBLIC INVESTMENT BY
ADMINISTRATIVE JURISDICTION, 1959

Administrative jurisdiction	Central government	Decentralized institutes and enterprises of the Central Government <u>a/</u>	Departments	Municipalities <u>b/</u>
<u>Agriculture</u>	<u>4.7</u>	<u>2.7</u>	<u>12.5</u>	<u>0.9</u>
<u>Industry</u>	<u>0.1</u>	<u>3.7</u>	<u>1.5</u>	-
<u>Electricity</u>	-	<u>13.3</u>	<u>3.7</u>	<u>31.0</u>
<u>Transport</u>	<u>79.0</u>	<u>44.5</u>	<u>68.2</u>	<u>1.5</u>
Roads	77.5	-	68.2	1.5
Railways	-	37.5	-	-
Harbours and inland waterways	1.5	37.5	-	-
Airports	-	7.0	-	-
<u>Education</u>	<u>6.7</u>	-	<u>5.1</u>	<u>3.8</u>
<u>Public health</u>	<u>1.0</u>	<u>3.6</u>	<u>3.2</u>	<u>2.4</u>
<u>Housing</u>	<u>0.7</u>	<u>23.7</u>	-	<u>6.9</u>
<u>Community services</u>	<u>3.3</u>	<u>11.0</u>	<u>5.0</u>	<u>47.7</u>
Water supply and drainage	-	11.0	3.5	13.9
Other community services	3.3	-	1.5	33.8
<u>Unclassified</u>	<u>4.5</u>	-	<u>0.8</u>	<u>5.8</u>
<u>Total</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>

Source: Administrative Department of Programming and Technical Services, Estudio Preliminar de las inversiones públicas en 1959, and Four-Year Public Investment, Plan, 1961-64.

Note: The figures represent the direct investment by each authority.

a/ Including the institutes and enterprises covered in the Four-Year Programme.

b/ Also including municipal enterprises.

Table 6

COLOMBIA: BREAKDOWN OF INVESTMENT BY ADMINISTRATIVE
JURISDICTION, 1950-59

(Percentage of total)

Year	Central govern- ment	Decentralized institutes and public enterprises _{a/}	Departments	Municipal ities	Total
1950	30.4	44.8	12.6	12.2	100.0
1951	52.0	32.8	8.4	12.2	100.0
1952	39.7	32.8	9.2	18.3	100.0
1953	37.6	36.0	10.9	15.5	100.0
1954	44.4	29.2	10.7	15.7	100.0
1955	40.5	34.1	12.7	12.7	100.0
1956	38.8	34.1	15.9	11.2	100.0
1957	36.0	35.0	15.0	14.0	100.0
1958	30.0	38.0	15.2	16.8	100.0
1959	27.8	39.7	14.5	18.0	100.0

Source: Four-Year Public Investment Plan, 1961-64.

a/ Attached to the Central Government.

/the decentralized

the decentralized institutes contribute a somewhat larger share, while the departments and municipalities contribute approximately equal shares of 15 per cent. That is, if the country's planning is to be reasonably effective, it must include, as a minimum, the central government bodies and autonomous institutes that together account for some 70 per cent of direct total investment. Moreover in Colombia the influence of a plan in which the central government took part would be greater than that percentage indicates, since the national budget provides for transfers of funds, for investment purposes, to the departments and municipalities.

This jurisdictional distribution of investment in Colombia is a good illustration of the situation in other countries. Consequently the programming machinery should from the outset include the autonomous authorities, and this involves amending legal provisions, changing established ways, or inducing a different outlook by demonstrating the advantages of co-ordination.

8. Extent to which the deficit in social services has been made up and identification of government policy

The diagnosis must determine the social services needs which are normally a government responsibility and must show the extent to which each government agency has contributed to meeting them.

Such an analysis will serve as a good illustration of the policies followed by government agencies and will provide some information regarding their individual ability to determine whether unsatisfied needs are increasing or diminishing.

To do this, methods or indices for determining needs in social services must be available. As a first approximation, certain indices which have gradually been worked out on the basis of experience could be used for reference or overall appraisal. For example, one of the usual aims of primary education is to ensure that the population between certain ages should have a given level of education. On this basis, the part of the population having no such education represents an index of the extra amount of the service needed.

/In public

In public health, it is usual to determine assistance service needs on the basis of the index of the number of hospital beds per head of population. Such an index is established for different types of illness in accordance with technical studies and also to a certain extent, on the basis of experience in other countries of higher income level.

In communal services, for example, the provision of water, the amount of urban housing and the number of inhabitants are the usual indices. Occasionally countries limit their aim satisfying needs in urban centres with more than a certain population figure.

Housing needs are determined by the number of families as related to a specific definition of the family and of housing; governments usually prefer, however, to provide housing for population groups of a given income level.

In general, research in this field is very limited in the Latin American countries. Furthermore, as governments fail to establish clearly defined targets, calculations are hard to make. It is considered that comparison with the experience of countries which have more data and greater quantitative resources available to operate such services, may provide indices or useful bases for making such calculations, although due account must be taken of the particular circumstances which may influence such indices in different countries.

The study of this point is of great practical importance in planning, for the increased amount of services required from each of the government agencies will depend more on the amount of the deficits which have been accumulating than on increased demand resulting from population increases.

Some numerical examples taken from experience in Colombia may serve to illustrate this point.^{1/} It is estimated that towards 1960 Colombia needed some 250,000 housing units, while the annual rate of increase in potential demand, resulting from increases in the numbers of families, was for 45,000 units. In primary education, it is

1/ See Plan Cuatrienal de Inversiones Públicas Nacionales 1961-64.

/estimated that

estimated that there is a deficit of 25,000 class rooms, while on the basis of population growth only 2,000 class rooms would be required.

Diagnosis should follow research to ascertain whether the deficit in services is increasing or decreasing; it is sometimes usual to consider that a minimum target for government agencies to meet, is to prevent the situation deteriorating.

As a result, an analysis should be made of the factors preventing government agencies from intensifying their activities. The following are the most usual: (a) the small amount of resources set aside in the overall budget; (b) ineffective technical and administrative organization; (c) lack of plans and specific targets; and (d) price and rates policies which may prevent the capital formation needed to enable the government agencies concerned to increase their output capacity. In low income countries, the lack of resources will without doubt be the determining factor, but it is also possible to demonstrate that the government agencies responsible for carrying out projects frequently have no specific plans and that the competent authorities have been lax in laying down clearly defined policy targets.

When the services are paid for in whole or in part through payments by users which are equivalent to a price paid or more accurately a rate charged, the analysis must include costs of production and indicate to what extent those rates or prices are sufficiently remunerative for the agency to be able to amortize and increase its production capacity. In this case, too, the diagnosis is bound to be of great value in helping the responsible authorities reach a decision on the policy to be followed.

This study of needs by type of service must be carried out in the greatest possible detail. For example, it will not suffice to analyse education as a whole, as, for the purposes of planning, definite information will be required regarding the situation in primary education, general secondary education, teacher training, and university education, distinctions being made between the various specialities taught in the latter branch.

/In the

In the first stage of analysis, the determination of deficits is usually made in an overall way for the country as a whole; it is, however, essential to determine deficits by regions, for in no other way can concrete plans be drawn up. The lack of plans has led in the past to cases of relatively unsatisfactory regional distribution, and this involves low productivity of resources.

Regional analysis may reveal the need to correct overall appraisals or estimates which were made at an earlier stage.

As it is usual for social services to be the responsibility of administrative agencies coming under different levels of jurisdiction - national, provincial, departmental or municipal - the diagnosis must give separate consideration to participation by each of such agencies, as it will be necessary to determine which agencies should intensify their activities and to establish which problems (operational, financial or problems of technical co-ordination) could arise in each case.

As has already been pointed out, an analysis of the same kind must be made when private agencies take part in the provision of such services.

Table 7 shows some indices for certain countries showing the position of services and total investment and the activities which are preferentially the responsibility of the Government. This information is given solely to demonstrate the kind of indices which are normally used, in order, as was stated earlier, to evaluate overall needs and estimate the output of services. Accordingly, it is not proposed to draw conclusions regarding the relative position of each country; such is not the purpose of this report and, furthermore, such a task could in no way be based on this information alone, for consideration would have to be given to the level of income in each of the countries, to innumerable data regarding the social and geographical characteristics of the different countries, and to the quality of services and productivity of investment.

In addition, it should be pointed out that in practice the indices referred to must be supplemented by others and that on occasion they constitute no more than a point of reference. For example, the index of the percentage of the population not provided with water supply only

Table 7

INDICES RELATING TO THE POSITION OF BASIC ECONOMIC AND SOCIAL SERVICES IN THE YEARS SHOWN

Country	Percent- age of illiter- ates of 15 years of age or over 1950	Educa- tion expend- iture <u>per</u> <u>capita</u> 1953 (dollars)	Percent- age of popula- tion with no water service in towns of over 2 000 in- habitans 1958	Number of hos- pital beds per 1 000 inhab- itants 1957	Number of doc- tors per 10 000 inhab- itants 1957	Installed electric ity capacity 1957 (watts <u>per</u> <u>capita</u>)	Road density in relation to:		Percentage relation ship be- tween length of paved roads and total length of roads (in km)
							Area (m/ km ²)	Popula- tion (km/ 1 000 inhab- itants)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Argentina	13.6	-	26.0	5.3	12.8	130	52	7.4	8.3
Bolivia	67.9	0.3	36.0	1.8	2.6	41	18	6.1	2.6
Brazil	50.6	4.8	47.0	3.7	4.1	70	62	3.8	7.6
Chile	19.9	4.4	46.0	5.0	6.0	139	72	7.6	4.4
Colombia	37.6	2.8	27.0	3.0	3.4	63	28	2.4	9.4
Costa Rica	20.6	4.8	1.5	5.1	3.7	84	185	9.4	10.7
Cuba	22.1	-	-	2.6	10.0	107	171	3.0	41.2
Dominican Republic	57.1	2.0	39.0	2.7	1.5	30	116	2.1	62.5
Ecuador	44.3	2.1	28.0	-	3.4	22	40	2.8	5.7
El Salvador	60.6	-	43.0	1.4	1.4	37	154	2.1	15.4
Guatemala	70.6	2.6	53.0	2.3	1.6	14	101	3.8	12.6
Haiti	89.5	-	61.0	0.6	1.0	8	117	1.0	13.6
Honduras	64.8	1.3	65.0	2.0	2.1	12	17	1.5	3.1
Mexico	-	1.4	47.0	1.0	5.7	79	70	4.4	18.7
Nicaragua	61.6	-	51.0	2.0	3.5	32	34	3.8	8.9
Panama	30.1	15.7	16.0	3.9	3.1	57	33	2.6	18.5
Paraguay	34.2	-	70.0	2.2	5.2	37	6	1.5	4.7
Perú	-	1.2	32.0	2.2	3.7	66	28	4.0	10.3
Uruguay	-	-	31.0	5.1	11.6	124	206	14.4	3.5
Venezuela	47.8	-	47.0	3.6	6.2	159	35	5.2	19.3
United States	3.2	52.1	2.0	-	13.0	-	-	-	-
Puerto Rico	26.7	-	-	-	7.1	-	-	-	-
Canadá	-	-	6.0	-	10.5	-	-	-	-

Source: (1) Oscar Vera, The position of education in Latin America, including discussion of educational requirements in the region (UNESCO/SS/SAED: LA/C-3b) - Expert Working Group on social aspects of economic development in Latin America, Mexico, 12-21 December 1960. (2) OAS - UNESCO-Inter-American Seminar on Integral Planning for Education, Washington, Pan American Union, 1959. Dollars as for 1948 prices. (3) Health in the Americas and the Pan American Health Organization, April 1960. (4) Conditions of health and hygiene in the Americas - WHO and the Pan American Health Organization, (5) Health in the Americas and the Pan American Health Organization, April 1960. (6) Four-year national public investment plan. (7), (8) and (9) The Planning Commission of the Ministry of Public Works of Colombia, on the basis of data provided by the Colombia National Association of Road Users affiliated to the International Road Federation.

shows a partial aspect of the problem, since water supply is a service which may be provided through connexions between dwellings or by means of collective supply points; furthermore, consideration must be given to the qualitative aspect, since water may vary from that which has undergone the simplest form of filtration to that which has been put through a more elaborate purification process.

The number of hospital beds of various types per 1,000 inhabitants and the number of doctors, as shown in table 7, are general indices of the public health assistance service, and these must be supplemented by partial indices for regions and for different medical specialities. As an illustration, it is interesting to point out that a level usually considered satisfactory is an index of 10 hospital beds of various kinds per 1,000 inhabitants. On the basis of this index, the countries of Latin America need large-scale investment in this domain.

The indices of the density of the road network must be interpreted in relation to the conditions in each country, and it is extremely risky to take the indices of one country to judge the conditions in others; they may, however, be used as a supplementary element of appraisal. In the case of Colombia, the index reveals the country's need to extend its network.

Another index of value in this connexion is the proportion of paved roads in relation to the total length of roads. In some countries of Latin America, it has been estimated that a desirable proportion would be 20 per cent. For the purposes of comparison, it is interesting to note that in the United States the figure is 30 per cent.

9. Analysis of financing of public investment

The structure of the financing system may usefully be analysed as a whole and for each individual agency, in order, inter alia, to explore the possibilities of augmenting resources and to define the factors that would make for rigidity if a change in the allocation of resources were in prospect.

(a) Financing of public investment

The diagnosis must comprise an analysis of internal and external

/sources of

sources of financing which covers a historical period of anything up to ten years, according to the data available.

External sources. Not only the absolute and relative magnitude of foreign investment will be studied, but also national policy in this respect.

In particular, it will be important to ascertain what use has been made of the various international sources of financing, so as to determine the possibilities of obtaining additional funds for new investment.

Again, the analysis should devote separate consideration to resources of private origin and those obtained from international institutions, in view of the special conditions governing the supply or loan of each, and should determine the sectors to which priority is given by the various sources of co-operation and credit.

The assumption is that the country's borrowing capacity has been evaluated in the overall studies.

Current and internal credit resources. In this connexion, research should cover the following main heads:

(i) The Government's surplus on current account, i.e., the difference between current income and current expenditure not included in the investment programme;

(ii) Taxes, etc., specifically earmarked for investment projects or the provision of services;

(iii) Income from economic activities applied to the financing of investment;

(iv) Internal credit resources;

(v) Capital resources accruing from the sale of assets.

The usefulness of analysing each of these items and even going into greater detail is too well known to require emphasis. It should merely be stressed that in this phase the diagnosis must endeavour to define the type of policy pursued by the Government with respect to the financing of public expenditure and in particular of investment. What is of interest is to ascertain the use made of internal credit and the methods by which it is obtained.

/In many

In many Latin American countries the public sector's current account shows a surplus which constitutes a relatively high proportion of the amount allocated to investment. Table 8 gives the figures for Colombia, which are very similar in magnitude to those registered in other Latin American countries, although there are also cases in which the coefficients are smaller.

To revert to the aspects discussed in the present report, the desirability of analysing the part played by the national budget in total public investment should be noted, since it is a well-known fact that decentralized institutes and local authorities often receive budget transfers which they usually allocate to investment. By means of such an analysis it is possible to determine what proportion of investment can be directly or indirectly controlled through a programme relating only to the national budget - a problem of immense practical interest because of the autonomy of the units concerned, which is often an obstacle to the establishment of co-ordination mechanisms. Table 9 shows that Colombia finances nearly 60 per cent of total public investment through the national budget.

Another aspect of financing which the overall diagnosis must include is the determination of the resources which are earmarked for specific purposes. There are taxes of this kind, in addition to administrative units' and local authorities' own income.

An analysis of this type is exemplified in the statistics pertaining to the four-year plan for Colombian public investment to which allusion has so often been made. Table 10 shows that in Colombia more than one fourth of the resources utilized has, in principle, been earmarked for a specific purpose. This constitutes what might well be termed a factor making for rigidity in respect of any future change in the allocation of resources, especially if it is borne in mind that the remaining 70 per cent of the resources available will have to be assigned to projects in course of execution or to services of a permanent character. Hence the amount of resources available for the initiation of new projects or the expansion of the services currently provided is still further reduced.

Table 8.

COLOMBIA: RELATION BETWEEN THE PUBLIC SECTOR'S SURPLUS ON CURRENT
ACCOUNT AND ITS CURRENT INCOME AND CAPITAL EXPENDITURE

Year	Percentage relationship to:	
	Current income	Capital expend- iture
1950	33.4	76.0
1951	38.8	89.7
1952	37.8	86.8
1953	33.1	69.7
1954	36.8	78.7
1955	35.3	69.5
1956	34.1	62.6
1957	36.5	73.2
1958	38.2	74.6
1959	38.9	77.9

Source: Four-Year Public Investment Plan, 1961-64.

Table 9

COLOMBIA: CONTRIBUTION OF THE NATIONAL BUDGET TO THE FINANCING OF
PUBLIC INVESTMENT

(Millions of pesos at current prices)

Year	Direct investment and transfers of capital from the national budget to public bodies	Consolidated investment of the public sector	$\frac{(A)}{(B)} \cdot 100$
	(A)	(B)	(C)
1958	437.1	959.0	45.6
1959	670.4	1 161.0	57.7
1960	810.0	1 382.0	58.6

Source: Four-Year Public Investment Plan, 1961-64.

/Table 10

Table 10

COLOMBIA: FORMATION OF RESOURCES FOR NATIONAL PUBLIC INVESTMENT
(Percentage of total)

Year	Tax revenue <u>a/</u>	Departmental and municipal contributions	Decentralized agencies' own resources and taxes earmarked for specific purposes	Internal credit resources	External credit resources	Total
1959	52.3	1.5	22.4	15.4	8.4	100.0
1960	60.4	0.7	24.0	10.4	4.5	100.0
1961	59.1	1.6	26.5	7.7	5.1	100.0

Source: Data from the Four-Year Public Investment Plan, 1961-64, processed by ECLA.

a/ Including tax revenue not earmarked for specific purposes and treasury balance resources.

/(b) Analysis

(b) Analysis of financing by administrative units

For the purposes of such an analysis, a systematic classification of the sources of financing might be as follows:

- (i) General budget contributions;
- (ii) Taxes, etc., earmarked for specific purposes;
- (iii) Income from economic activities;
- (iv) Internal credit;
- (v) External credit; and
- (vi) Other income.

This analysis is of interest chiefly in respect of autonomous agencies, since the expenditure of the central administration is financed almost entirely with budgetary resources.

The detailed accounts of each of the units concerned would of course be needed, and basic tables of current and capital transactions would have to be prepared.

The diagnosis should comprise a special study of bodies financed mainly with income from economic activities, in which it would be of fundamental importance to analyse production costs in relation to the prices or rates charged for services, with a view to determining, inter alia, whether the policy pursued in respect of prices and subsidies had hampered the development of investment or the increased provision of services.

Lastly, it should be ascertained whether the agencies concerned are legally obliged to allocate their own resources or those deriving from transfers to a specific type of investment or a particular part of the country. Obviously, such stipulations may subsequently constitute another factor making for rigidity in the distribution of resources under the programme.

10. Utilization of goods, services and factors of production

The essential objectives of this analysis are three in number:

- (a) to define the extent to which the provision of goods and of factors of production constitutes an obstacle to the development of public investment;
- (b) to evaluate how far optimum use is being made

/of resources

of resources from the standpoint of the economy as a whole; and (c) to collect as much information as possible with respect to the repercussions on the rest of the economy likely to be produced by the programme in course of formulation, as well as to determine the essential requisites for the latter's implementation.

The chart for the analysis of government activities affords a good example of the nature and scope of the data required for these purposes.^{2/} The ideal solution would be to obtain all those needed for the construction of such a chart; but in practice they are available only in the case of widely differentiated sectors of activity concerned with the production of goods such as building materials, for example, and in that of certain public utilities.

In a preliminary phase, therefore, research may be confined to the so-called critical inputs and to foreign exchange requirements. Among the former, materials in short supply and skilled labour might be considered.

It is advisable to determine whether the provision of materials has helped to restrict the expansion of investment, and to study the production capacity of industries related to government investment activities or services, particularly those manufacturing certain widely used materials which are frequently a source of bottlenecks, such as cement and iron, for example.

Skilled manpower is the other limiting factor, and the diagnosis should indicate the activities most affected by this problem. Here it would be useful to estimate which types of skilled workers and technicians are most urgently needed. Nor should the diagnosis omit research on the import content of investment and of the services which must be included in the programme. Input-output models, constructed on the basis of statistical data and of information obtained from technical studies, might be the most suitable instruments for estimating the direct and indirect content of intermediate imports, to which capital goods not covered by the said research would have to be added. Importance

^{2/} See the chart presented in section II of the present report, page 31.

may attach to the determination of the indirect content, i.e., that of imports of intermediate goods in industries connected with investment. Thus, for example, it can be seen in the case of Argentina that the coefficient of indirect content in the construction sector as a whole is of the same magnitude as the coefficient of direct content, so that to take only the former into consideration would mean under-estimating by 50 per cent the volume of imports required.

Another item which must be taken into account in estimating foreign exchange inputs in public investment is constituted by the payments made, under various heads, for the services of foreign engineering firms.

Existing provisions designed to promote rationalization of the use of materials should be reviewed, or their absence indicated. Since the Latin American countries commonly transplant techniques and designs from other countries with higher income levels and a specific combination of productive resources, it would be extremely useful to analyse such practices in terms of the conditions prevailing in Latin America.

It often happens that no use is made of materials in plentiful supply because the necessary technical studies have not been carried out, or because of the lack of norms for the marketing and preparation of the materials in question which would not only encourage their application but also lower their costs. This problem should be analysed from the point of view of different areas, since local advantages are often thrown away because of general provisions or institutional habits which apply identical principles throughout the whole country.

Lastly, it should be pointed out that the factors to be analysed in the course of the diagnosis include the present pattern of utilization of the capital and labour factors by official agencies and by both foreign and domestic engineering firms in the execution of investment projects, and current habits or practices in the field of import substitution of capital goods. By means of such studies useful data for the evaluation of projects could be obtained, and consideration could be given to the fundamental problem of programming in

/relation to

relation to the optimum use of resources in short supply - capital and foreign exchange -, as well as of those which are relatively plentiful, such as, for example, unskilled labour.

11. Operational capacity and the efficiency of administrative units

It is necessary to evaluate the production capacity of administrative units concerned in the direct implementation of investment or services projects or in contracting for their execution, in order to determine how far they will be able to make efficacious use of the resources allocated to them under the programme.

Factors limiting this capacity will have to be defined and the operational efficiency of the unit determined, even if only in general terms.

In the first stage, with respect to the overall evaluation of the public investment system, certain simple indices might be utilized which, supplemented by other data, would give some idea or approximate measure of the capacity in question. These might include the volume and nature of the projects put into effect in recent years by the unit concerned; the number of projects prepared per annum; resources allocated in the budget but not applied in the course of a fiscal year; number of professional staff with experience in key activities; and supplies of equipment.

There is a tendency in the public sector to embark upon a larger number of projects than would seem reasonable in relation to the operational capacity of the unit involved; thus, deadlines for the completion of projects under way or just initiated cannot be met.

This problem is aggravated if, at the same time, financial resources fail to increase, since the credits allocated to each project gradually dwindle or the installation costs of finished projects are not covered. There are cases in which the incidence of these factors is such that the projects take on an average three or four times longer to enter operation than would be reasonable.

12. Analysis of projects being carried out and determination
of the funds committed

With respect to each department concerned, an estimate must be made of the funds required to carry out the following steps:

- (a) installation costs and additional requirements for completed projects;
- (b) completion of projects being carried out;
- (c) extension of permanent economic and social services.

With regard to (a) and (b), an estimate must first be made of the social cost, and then of the amount that will have to be invested in each year covered by the plan. A time limit for the completion of each project being carried out should therefore be fixed. A limit might first be set for completion under normal conditions and on the basis of the probable increase in the operating capacity of the departments concerned. Later, programme analyses might review these criteria in relation to the priority assigned to other investment projects and in the light of more extensive knowledge of economic needs.

A separate estimate of the funds required to conclude projects under way should be made for each stage of work involved. A possible method might be to deduct from the original budget the amount invested to date, taking into account the additional funds for installation and the cost adjustments made.

The application of this procedure usually creates practical difficulties because of the lack of sufficient data on the changes made in the original projects or because the work has been budgeted for or appropriations made on a partial basis, as is usually done in Latin American countries.

Another procedure would be to make a direct estimate of the work still to be done and to evaluate it in accordance with the cost of the most recent contracts, with such adjustments as may be deemed necessary. This method has been applied in Colombia in the case of hospitals, airports, aqueducts and drainage systems. Estimates become more difficult when there are several public works involved and the projects prepared relate to only part of them, as in the case of roads, irrigation schemes and water supplies.

/A systematic

A systematic compilation of the data required for each of the procedures described above may be very difficult to carry out in practice.

This would therefore leave only one alternative - at least in the initial stage of research - and that is to resort to approximate estimates. In this connexion, the method used in Colombia to estimate the cost of completing the roads under construction may again serve as a useful illustration. At the beginning of 1960 there were 82 sections of national highways under construction. As is customary in this type of public works, projects were prepared only for those sections for which it had been decided to issue contracts. The others were therefore left pending. The first step was to study what should be the minimum length of a road to be considered for inclusion in a programme. The criterion applied in this connexion was that a road should establish an actual link between two populated place or between a populated place and another road or serve as a link between two separate road systems. An estimate was thus obtained of the length of road sections which should be considered as indivisible investment projects for the purpose of making the service available under the normal conditions anticipated. The length of roads already completed was deducted from this estimate and that of roads still to be constructed was determined. In the case of the latter, specifications were drawn up on the basis of the type of terrain involved - mountainous, undulating and flat - and the width of the roadbed for the three sizes normally used in Colombia, and the average volume of work per kilometre was estimated for each of these specifications. The results of these calculations are given in table 11.

Three unit costs applied to the entire network were established in order to determine the value of work still to be done. Several factors were reflected in these costs: quality of the land, supply of material and availability of contractors and labour in the area.

/Table 11

Table 11

COLOMBIA: VOLUME OF WORK PER KILOMETRE OF HIGHWAY

Type of work	Unit of measurement	Width of roadbed: 6 metres ballasted: 5 m x 0.25 m unpaved. Terrain:			Width of roadbed: 8.60 metres ballasted: 7 m x 0.25 m. Paved width: 6.10 m. Terrain:			Width of roadbed: 12 metres ballasted: 10 m x 0.25 m. Paved width: 7.30. Terrain:		
		Moun- tainous	Undu- lating	Flat	Moun- tainous	Undu- lating	Flat	Moun- tainous	Undu- lating	Flat
1. Levelling	m3	30 000	25 000	2 000	70 000	40 000	3 000	100 000	50 000	4 000
2. Grading (crushing)	m3	5 000	7 500	9 000	10 000	12 000	13 000	12 000	15 000	17 000
3. Filling	m3	6 000	2 500	-	14 000	4 000	-	20 000	4 000	-
4. Pipe culverts	#	10	6	3	10	6	3	10	6	3
5. Secondary concrete	#	3	2	2	3	2	2	3	2	2
6. Sub-base of selected material	m3	1 250	1 250	1 250	1 750	1 750	1 750	2 500	2 500	2 500
7. Crushed stone base	m2	-	-	-	7 000	7 000	7 000	8 100	8 100	8 100
8. Gravel or broken stone base	m2	-	-	-	7 000	7 000	7 000	8 100	8 100	8 100
9. Surfacing	m2	-	-	-	6 100	6 100	6 100	7 300	7 300	7 300
10. Paving	m2	-	-	-	6 100	6 100	6 100	7 300	7 300	7 300

Source: Programming Studies Commission of the Ministry of Public Works of Colombia.

100-100-100
 100-100-100
 100-100-100

The unit costs for each type of highway investment project are given in table 12. The relevant findings were compared with the cost of roads recently started and it was found that the difference was relatively small, particularly if the purposes which the estimates were to serve are taken into account.

The features of each project, the capacity of the contractors and of the official department concerned were taken into consideration in estimating the work that could reasonably be done in each of the four following years which would be included in the country's public investment programme.

The study showed that commitments would be relatively high, so much so that unless additional funds were made available there would be no prospect of undertaking any new large-scale projects, assuming that priority were given to the completion of public works already in progress.

The results of the study on the amount of commitments for public works pending in Colombia, compared with the annual average investments of the past few years, are given in table 13. As may be seen, there are a large number of works relating to roads and hospitals and considerably fewer with respect to airports, aqueducts and drainage systems, the time needed for these works being relatively shorter. The difference would nevertheless be greater with respect to aqueducts and drainage works if projects for the major urban centres, not included in the table, were taken into account.

It is more than likely that the general position in Colombia with regard to the relative importance of pending works also obtains in countries where conditions are similar. Thus the practical consequences deriving from knowledge of this factor show how useful such prior studies can be.

As already indicated, the study should be supplemented by an estimate of funds to be made available for permanent services and for capital maintenance, with a view to determining total commitments in terms of available funds.

If these studies are carried out for each of the departments concerned, basic data would be available with which to consider to what

Table 12
COLOMBIA: UNIT PRICES FOR HIGHWAY CONSTRUCTION
(Pesos at 1960 prices)

Type of works	Unit of measurement	Simple	Normal	Difficult
1. Levelling (cutting)	m3	2.00	3.00	5.00
2. Grading (crushing)	m3	1.05	1.20	2.00
3. Filling	m3	1.00	1.20	1.50
4. Pipe culverts	m	100.00	120.00	140.00
5. Secondary concrete	ea.	6 000.00	8 000.00	15 000.00
6. Sub-base (selected material)	m3	9.00	11.00	14.00
7. Crushed stone base	m2	4.50	5.00	5.50
8. Gravel or broken stone base	m2	3.00	4.50	5.00 (thickness 0.2m)
9. Surfacing	m2	0.60	0.70	0.80
10. Asphaltic concrete (mixed in plant)	m2	10.00	11.00	12.00 (thickness 8.5cm)
11. Triple coating	m2	3.00	3.20	3.50
12. Mixing on road (thick mixture)	m2	-	5.00	- (thickness 6cm)
13. Concrete	m2	-	25.00	-

Source: Programming Studies Commission of the Ministry of Public Works of Colombia.

Table 13

COLOMBIA: FUNDS NEEDED TO COMPLETE PUBLIC WORKS IN PROGRESS
(Millions of pesos)

Type of project	Funds needed to complete public works in progress as of 1/1/1961	Approximate annual investment in the period 1957-59
Highways	870.0	160.0
Hospitals	60.0	4.0
Airports	52.7	24.0
Aqueducts	49.0	25.0
Drainage systems	9.0	4.5

Source: Four-Year National Public Investment Plan, 1961-64.

/extent the

extent the present situation may be remedied and the time needed to do so. Thus, in a subsequent stage, the planner will analyse the priority to be given to the works in progress and to maintenance and repair costs, both with respect to new projects and in terms of social service targets.

An illustration of the problem of public investment analysis and programming may be given using the figures from the Colombian Four-Year Plan. As shown in table 14, an estimate was made of the funds required in the 1961-64 period for: (a) capital maintenance and permanent economic and social services; and (b) the completion of projects being carried out. A separate estimate was made of the total financial resources available during that period. It was assumed in the study referred to in table 14 that available funds would increase at an annual cumulative rate of about 7 per cent.

It will be seen that expenses for capital maintenance and the provision of permanent services will amount to about 17 per cent of the funds available during the period concerned and that the funds needed to complete public works in progress will represent in 1961 - the first year of the plan - more than half the amount available. Three years later the public works started before 1961 will still absorb about one fifth of the total funds available for investment (see figure).

Hence, discounting the transfers of capital to departments established by law under the Colombian system, funds available to start new projects will, in the first year of the plan, amount to only one fourth of the total funds available. They will have risen appreciably three years later, amounting to 54 per cent of the total public investment funds. It should be borne in mind that the 54 per cent includes the financing of public works begun in 1961 or later but not completed by 1964.

The departmental analysis carried out in connexion with this experiment shows that commitments for the completion of public works in progress are much higher in departments of the Ministry of Public Works. It is estimated that only 3 per cent of the funds available

Table 14
COLOMBIA: DETERMINATION OF FUNDS COMMITTED
(Percentages)

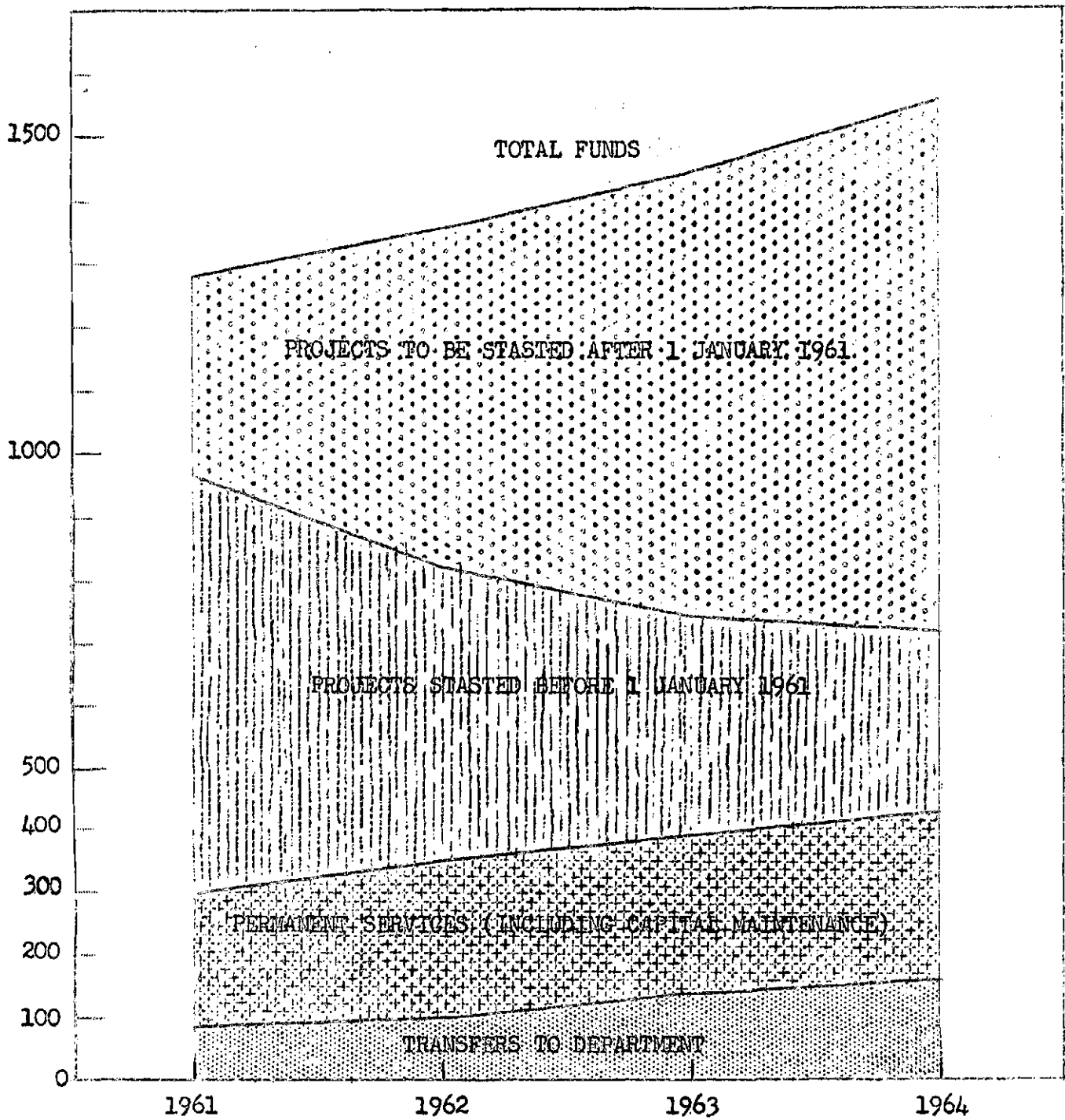
Year	Transfers of capital to departments a/	Funds for services and for maintenance of installed capital	Funds for public works in progress	Funds available for new projects and services	Total funds provided for b/
1961	7.3	16.1	52.4	24.2	100.0
1962	7.3	17.7	34.8	40.2	100.0
1963	9.4	17.5	24.4	48.7	100.0
1964	10.2	16.8	18.7	54.3	100.0

Source: Four-Year National Public Investment Plan, 1961-64.

- a/ These transfers are provided for in current legislation, except for those relating to the appointment of teachers needed in the new schools to be built under the plan.
- b/ Supplementary funds decreed by the Congress and unallocated funds deriving from the authority granted by it to the Executive Branch to transact foreign loans have been excluded from the funds in the Four-Year Plan.

COLOMBIA : BREAKDOWN OF FUNDS FOR THE FOUR-YEAR
NATIONAL PUBLIC INVESTMENT PLAN, 1961-64
(Millions of pesos)

Natural scale



/in 1961

in 1961 can be used for new projects if priority is given to completion of work in progress within the specified time limits.

13. Current policy, objectives and plans of departments

An estimate of public investment can obviously not be made unless detailed information is available concerning the plans decided upon by each department. In this connexion, another useful step would be to identify the departments which do not have fixed plans or clear policy decisions.

The best method of obtaining this information - as well as other data required for the analysis - would be to carry out an expert inventory or direct investigation of each of the departments concerned, as suggested later in this report.^{3/}

14. Machinery for the preparation, application and supervision of public investment programmes

The analysis must be completed by a study of the methods and practices applied in the country with respect to decisions and of the machinery for applying and supervising public investment. Moreover, legislation and customs based on the present structure should be reviewed so that measures consistent with the facts can be recommended for the establishment of an effective programming process.

^{3/} See section V below.

V

SOURCES OF INFORMATION FOR THE DIAGNOSIS

1. Data and sources of information

The notional analysis made in the previous section of the main components of a diagnosis of the public investment system has thrown light on the wide variety and large amount of quantitative and qualitative data needed in order satisfactorily to evaluate public investment systems for the purpose of establishing a programming process.

Although to a large extent attention has already been drawn under each item to the type of basic information required, by way of summary a classification is now given of such information with particular reference to direct inquiries of government agencies, as these are the most important source of information.

The main sources of information would appear to be the following:

- (a) Conclusions drawn from the diagnosis of the economy as a whole and main aspects of the development programme;
- (b) National accounts;
- (c) Accounts in the public sector;
- (d) Statistical series on public investment and stock of capital;
- (e) Structural analysis of the activities of government bodies;
- (f) Technical information provided by agencies, their policies and plans;
- (g) Information on legislation and practice as regards all administrative aspects of policy making and implementation by the government.

2. General diagnosis of the economy and development programming

The problem of altering a given level of public investment and its composition can only be dealt with as part of the general diagnosis of the economy and its possibilities of growth.

The more detailed and accurate the knowledge of the obstacles standing in the way of a country's development and the achievement of development targets, the more detailed and accurate will be the diagnosis of the public sector in general and of investment in particular.

/The obvious

The obvious fact that public investment is inadequate and must be increased, can only be stated in quantitative terms within the context of an overall evaluation of a country's resources, future prospects and growth possibilities both in the aggregate and by sectors. It is not possible to formulate a public investment programme without having available the fundamental findings of an overall diagnosis of the economy and of development policy. This does not mean that, in the early stages, it is not either relevant or necessary to outline a general medium-term orientation plan for which there is no need to have available the details of specific programmes and projects which would better be left to private initiative in forthcoming years.

3. National accounts

There should be available series of national accounts or, at least, estimates on the main macro-economic variables - product, income, consumption, investment, etc. -, covering a number of years in the immediate past.

4. Public sector accounts

The accounts of the public sector should contain the greatest possible amount of detail regarding income, expenditure and transfers. It is also desirable that they should cover a period in the past, even if the data are of a global or consolidated nature.

The most important classifications required would be the following:

- (a) Consolidated accounts for the entirety of the public sector;
- (b) Individual accounts at the national, provincial or departmental and municipal level; and
- (c) Individual accounts for each of the decentralized agencies or, as a minimum, for all those agencies which take an important part in using or putting investment into effect.

5. Statistical series for investment and inventories of fixed capital

Statistical series for investment must be compiled by classes of goods and services and by economic sectors of destination. It would also

/be useful

be useful to have a main supplementary classification by administrative levels and sub-classifications by agencies and types of goods.

As stated below, a large part of such information could be obtained along with other data through an inquiry among administrative agencies.

There is a good case for compiling statistical series for inventories of capital resulting from public investment by means of direct measurement or by aggregating annual investment.

6. Structural analysis of government activities

The structural chart of the input-output type studied in section II in connexion with the programming of government activities represents a logical and fruitful method for the systematic compilation of basic information for the analysis and planning of public investment. It has already been pointed out that in the Latin American countries it is not easy to obtain the statistical data required, even if solely for the purpose of preparing such a table covering a single year. If, however, progress has been made in the formulation of the public programme budget, it should then be possible to find a means to prepare a structural table of this kind. At all events, as a first step, the analysis can be confined mainly to those agencies which take the greatest part in public investment, other agencies being treated in a more general way.

7. Technical inquiry addressed to administrative agencies

To make a proper diagnosis of public investment, the general information or even more specific information deriving from the studies of the economy as a whole, of national accounts and of the public sector is not sufficient. A great deal of extra information is required including data of an administrative, technical, financial and economic nature to be provided by the agencies and also descriptions of investment plans and targets. This information could be requested globally from the agencies themselves as part of the inquiry already referred to. The inquiry should cover the greatest possible number of executive bodies, of agencies using investment and of units producing specific services which are to be included in the plan, at all levels of administration.

/The most

The most important topics which the inquiry should cover are listed below. The list was prepared bearing in mind, on the one hand, the known scarcity of technical data and studies in the agencies and, on the other, the need to obtain a minimum of basic information in the shortest possible time.

8. Principal subjects of the inquiry

(a) Description of the agency's activities

The agency will be asked to describe its activities by giving an account of the specific programmes or projects it is carrying out. In particular, the types of goods and services it produces should be indicated, together with the main purposes for which they are intended.

(b) Financial resources

Annual funds of the agency over a period of years, with an indication of the source, namely:

- (i) national budget
- (ii) provincial and municipal budgets
- (iii) taxes allocated for specific purposes
- (iv) development funds
- (v) internal loan funds
- (vi) external loan funds
- (vii) sale of assets, etc.

Both under this heading and those that follow the aim would be to obtain data with standard descriptions and classifications for all agencies, to permit the preparation of combined tables. This information about financial resources supplements the statement of accounts usually provided by these bodies. The questions or questionnaires for the inquiry should naturally be drafted in such a way that the financial resources data can be incorporated in an integrated chart together with current and investment costs.

(c) Expenditure and investment

So far as possible the agency's expenditure should be classified by programmes, with separate entries for capital transactions, as follows:

- (i) expenditure on investment programmes
- (ii) expenditure on operational programmes

/(iii) transfers

- (iii) transfers of funds to other public or private institutions
- (iv) building up of reserves
- (v) other expenditure.

Investment programme expenditure should be presented by projects, but if there are a large number of projects, they can be grouped together under the main types of investment projects. It is emphasized that in this section of the inquiry it is not suggested that there should be a detailed account of the inputs for each project; these pertain to a different inquiry which will be referred to later.

(d) Goods and services produced

Annual figures for the preceding ten years should be asked for, together with production figures in physical terms for each investment programme, with particulars of the units of measurement used.

The information should include a classification of production by area of destination, and this should be accompanied by any instructions or criteria with which the agency must comply.

(e) Use of goods and services and their unit costs

This would be a technical inquiry and would consist of defining, for typical units of each investment project, the physical volume and costs of inputs. Thus it would be possible, for example, to determine the amount and cost of materials, labour, skilled services and utilization of capital goods per kilometre of road, kilowatt of installed capacity, schoolroom, hospital bed, litre of water per capita, etc.

Investments should be classified according to whether they are of domestic or foreign origin, in order to estimate the cost in foreign currency.

In addition there should be for each of the typical units of the investment projects a definition of the scale of production, quality and other usual specifications for the project: classrooms in schools of different sizes, for example.

The forms or questionnaires for the inquiry should be accompanied by instructions, definitions of units of measurement, specifications of typical project units and other clarifications so that the agency can make its answers as exact as possible. It would be helpful to provide a standard classification of inputs.

/(f) Supply

(f) Supply of staff

This section would cover two points, information as to staff employed, and questions about the agency's problems relating to requirements in skilled and technical staff, as follows:

(1) Agency staff, classified under the headings of (i) technical staff, (ii) administrative staff, and (iii) skilled and unskilled labour;

(2) Staff needed to deal with existing programmes, with the relevant descriptions.

(g) Supply of capital equipment

On the same lines as in section (f), the inquiry would cover:

(i) existing capital equipment in the agency, including types of equipment, state of preservation and, where applicable, productive capacity; (ii) additional equipment required for a more rational execution of existing programmes, including the relevant specifications and whether the source of supply is domestic or foreign.

(h) Period of completion of investment projects

It would be useful to obtain detailed information on average periods of completion for the execution of projects during the last few years, and the agency's views as to how far these periods should be regarded as normal. The inquiry might also include views as to the causes of any delays that might have occurred, such as administrative formalities and controls, shortage of staff and equipment, difficulties in the supply of materials, delays by contractors, and so forth.

(i) Minimum allocation of resources

Where an agency supplies economic or social services, it would be useful to obtain its views as to the minimum allocation of resources, by programme, especially if this factor is the main cause of the inefficiency of the service.

(j) Projects in progress

A list should be given of each of the projects being carried out, with an indication of the type of project, geographical location and other features in order to provide an accurate definition. The

/following specific

following specific information should be sought:

- (i) estimated cost of completing the project at current prices
- (ii) estimated installation costs
- (iii) period of completion, with normal supply of funds and conditions for carrying out the project
- (iv) estimated annual funds required until completion
- (v) annual requirements in foreign currency under various headings
- (vi) estimated annual requirements of materials, or at least of those considered essential, in volume and value.

(k) Agreed investment plans

This should consist of a list of each of the plans drawn up by the agency with an indication of the nature of the projects, geographical location and other features essential to definition of the projects.

The following specific information would be useful:

- (i) data or technical background information to convey the physical size of each project
- (ii) total cost of each project
- (iii) estimated period of completion
- (iv) annual funds required
- (v) annual foreign currency required under various headings
- (vi) estimated annual requirements of materials, or at least of those considered essential, in volume and value.

(l) Financial plans

It will be useful to know what plans the agency has for financing its projects, especially for an agency that has new projects; in this case the information should be provided according to a systematic classification that will permit of subsequent use in combination with parallel data. It would also be useful to have information as to the principles governing the agency's proposed use of its resources, especially with reference to taxes earmarked for specific purposes and operational income.

(m) Estimated requirements for services

An agency that provides economic or social services, such as agricultural campaigns, education or health, should be asked to provide

/technical studies

technical studies indicating:

- (i) estimated volume of existing requirements
- (ii) production by government and private units, respectively
- (iii) extent of needs that cannot be met
- (iv) probable situation with respect to shortage of services when existing projects have been completed and plans already drawn up by the agencies have been put into effect.

It would be advisable for these data to be distinguished on a regional basis to the greatest extent possible.

(n) The agency's criteria of priority and policy adopted

The agency should provide information on all the considerations taken into account in formulating its plans, such as criteria of priority, factors determining the choice of the type of project when there are possible alternatives, principles governing regional distribution, and size of projects. In practice the questions in this section of the inquiry should be formulated in relation to the activity concerned.

It would also be useful to know something of the prospects of future activities, the policy, the objectives, and so forth, of agencies that have not drawn up specific plans.

9. Experience gained in a technical inquiry addressed to administrative units

The foregoing themes can best be considered as an enunciation of the general concepts which an inquiry addressed to government units and agencies should include. Each one of the points referred to should be stated in a technical manner and with a scope and depth suited to the nature of the activities of each individual unit or agency and to the general conditions pertaining in the country as regards the availability of the information required.

At all events, it should not be forgotten that the inquiry under consideration is one which would be formulated at the time of embarking on a programming process and whose essential purpose would be to obtain a minimum of basic information in the shortest possible time.

/An inquiry

An inquiry of this kind was carried out in Colombia at the beginning of 1960 by the competent planning bodies. The tabulations and forms used, which are attached to the end of this section of the report, show that the inquiry was relatively simple, as it covered less topics than those set forth above and questions were asked only of government units. The success of this first experiment, however, encouraged planning bodies to extend the inquiry at the end of 1960 to departments and municipalities.

The main data which the planning bodies obtained through this inquiry were the following:

- (a) annual investment and expenditure in a period immediately preceding the inquiry and financing of such investment;
- (b) progress with projects under way and resources required to complete them;
- (c) estimates of the needs for social services;
- (d) information regarding new plans, their targets and financing;
- (e) additional services which can be obtained in four to five years after completion of present work and new projects.

COLOMBIA: INQUIRY INTO PUBLIC INVESTMENT

Form 1

INCOME AND TOTAL EXPENDITURE

(In current prices for each year)

Office, agency or body: _____

Year	Source of finance		Total income	Total direct investment	Overhead expenses	Transfers
	National budget	Departmental or Municipal budget				
1957						
1958						
1959						
1960						

Form 2

INVESTMENTS MADE

(In current prices for each year)

Office, agency or body: _____

Year	Type of project	Capital conservation	Grand Total
	Total		
1957			
1958			
1959			
1960			

/Form 3

Form 3

PROJECTS UNDER WAY AND FINANCIAL COMMITMENTS FOR THE FUTURE

Office, agency or body: _____

Projects	Geographical area	Total budget	Amount invested as at 31 December 1958	Investment 1959	Investment proposed for 1960	Future investment				Remaining investments
						1961	1962	1963	1964	

Form 4

PROJECTS UNDER WAY AND NEEDS FOR SERVICES

Office, agency or body: _____

Type of project	Services that will result from projects under way becoming operative			Present needs for services	Estimate of the year or period when projects will become operative
	Type of service	Unit of measure	Amount		

/Form 5

E/CN.12/584
Page 119

Form 5
PROGRAMME OF NEW PROJECTS

(At 1960 prices)

Office, agency or body: _____

Type of project	Geographical area	Approximate total cost	Proposed annual investment				Later investment
			1961	1962	1963	1964		

E/CN.12/584
Page 120

Form 6

PROGRAMME OF NEW PROJECTS AND STATUS OF SERVICES AT THE END OF THE PERIOD

Office agency or body: _____

Type of project	Services that will result after projects become operative			Estimate of the year or period of entry into operation	Estimate of the need for services in 1964, estimating both those that will result from projects now under way and from new projects, and also the increase in needs
	Type of service	Unit of measurement	Amount		

/Form 6

Form 7

PROJECTION OF INCOME AND TOTAL COSTS

Office, agency or body: _____

Year	Source of finance					Total income	Overhead expenses	Transfers	Investments being carried out	New investment
					
1961										
1962										
1963										
1964										

IA/
/VI

E/ON 12/581
Page 121

VI

SOME PRACTICAL ASPECTS RELATING TO THE
FORMULATION OF PUBLIC INVESTMENT
PROGRAMMING

1. Overall projection of available resources for the
financing of programming activities

In programming government activities, particularly those relating to public investment, a desirable technique is the well-known method of overall programming by stages, from the general to the sectoral and vice versa, in accordance with a process of successive adjustments.

When central planning organs or teams discuss the budget, evaluate the country's growth prospects and decide on an overall development plan, they give detailed consideration to the programming of public revenue and expenditure, total investment and, in particular, public and private investment.

Moreover, in deciding on the overall plan, they discuss internal financing and external funds required by the development programme.

The funds to be available for activities included in the plan can be determined by subtracting from the total funds of the public sector those which have to be applied to activities not included therein. This procedure is not based on any concept which considers public investment a residual item, because it can be applied in another way by subtracting from the total funds the amount of a preliminary estimate of the public investment programme in order later to analyse the volume of funds to be applied to operating costs. Regardless of the method applied, the total income and expenditure of the public sector will subsequently have to be checked for consistency.

This distinction loses practical significance if social, economic and research services are included in the plan together with investment projects and if, as is usually the case, general administrative and operating costs, relatively simple to project, are left out of the plan.

Detailed projections of funds should be made which should include at least the following items:

- (a) internal funds:
 - (i) tax revenue;
 - (ii) revenue from economic activities;
 - (iii) other current revenue;

/(iv) domestic

- (iv) domestic credit and other capital income.
- (b) external funds.

Tax revenues are projected on the basis of technical studies conducted by experts in tax analyses who might be placed within ministries of finance. Individual projections should be made for each tax, separating those applied to specific items.

Projection of revenue from the economic activities of departments should largely be based on analyses effected by these departments. The data could be obtained by means of the study suggested earlier.^{1/} Domestic credit will have been discussed in the overall projection plan and data will moreover be available from each department, in terms of the status of its operations and the financing plans it may have formulated.

Projection of external resources will have been considered in the overall plan, particularly in the balance-of-payments projections. It should now be compared with the financing plans of each department and this data can be requested in the aforementioned study.

2. General considerations relating to the allocation of public investment programme funds

An evaluation of growth problems and the economic and social development programme, on the one hand, and the specific analysis of public investment, on the other, will provide criteria and expert estimates for determining the allocation of funds to each activity relating to investment and the provision of services included in the plan.

The general economic analysis will indicate the difficulties impeding or delaying economic growth. Thus, an indication may have been given of the priority and urgency of specific basic investments in transport, water management and irrigation to promote the agricultural sector or to encourage specific export or import substitution activities with a view to resolving the balance-of-payments problem,

^{1/} See section V.

or of the desirability of promoting or establishing certain industrial activities as key factors in development.

This definition of problems and these decisions on the action to be taken in due course with respect to each sector obviously imply priorities and a decision as to the urgency of each category of public investment, because the government will play the direct part assigned to it in the investments required to achieve these objectives.

The overall development plans will fix growth targets involving specific national production and overall and sectoral investment requirements, in addition to import needs.

Once the action of the government has been decided, a first approximation is obtained of production and investment targets to be achieved by the public sector. The government must therefore act to ensure that the programme is carried out.

While these estimates derive from more or less prepared mathematical models, the overall projections are first approximations since they are determined on the basis of average coefficients of the input-output ratio or assumptions on the replacement of capital goods which are not specific enough and may be altered in accordance with the policy of making the best possible use of funds.

These shortcomings are particularly important in short- and medium-term programmes.

By analysing the public investment plan and the programming of the economic sectors, these overall estimates may be checked and adjustments made in the estimates prepared in the first stages of the work.

Leaving aside a meticulous study of these technical aspects of programming, the present report merely seeks to stress that the fundamental determination of the allocation of public investment funds by activity is derived from this sectoral programming analysis.

With respect to the provision of social services - education, public health and housing - the investment in or cost of the programmes will depend chiefly on a decision by the government to achieve specific targets. The relationship between social investments and those of a

/productive nature

productive nature will already have been discussed in the general programme. A detailed breakdown of the funds required to achieve the targets set for each service may nevertheless indicate the desirability of reconsidering the targets decided upon.

The general programming analyses will also indicate principles for future guidance and, in some cases, specific criteria with respect to the optimum use of natural resources and production factors available to the country, in other words by saving on scarce resources and making full use of those in relative abundance. Foreign exchange, capital and skilled labour are included in the former and unskilled labour and other natural resources in the latter.

Where the programming process is already in an advanced stage, these criteria will be used more specifically, when including projects in a plan, by means of the evaluation of each of them by experts, applying accounting prices to labour, capital and foreign exchange.

It has already been shown that public works in progress, as well as requirements for the installation and provision of additional facilities in respect of completed works, may involve large amounts in terms of funds available for investment, particularly in the early years of a plan. This raises the problem of deciding whether priority should be given to these requirements or whether funds should be allocated to new projects. In principle, the logical step would be to give priority to the completion and installation of works in progress, but experience shows that undue delays in carrying out projects cause substantial losses in output. Hence, this criterion cannot be applied automatically but must be considered in terms of each project, since there may be some cases in which the opposite course is indicated. Similar preference should be given to capital equipment maintenance and conservation.

3. Factors conditioning the application of a system of priorities

The foregoing section contained a list of the various factors used in determining the distribution of resources in an investment plan. A first group of such investments owes its existence to the fact that the

/investments concerned

investments concerned are technically and quantitatively an essential part of the general development programme or that they are mutually complementary within the scope of investment projects for the provision of specific services. A second group of investments consists of those arising mainly from political decisions, and a third group could be made up of the assignments of resources essential to a development programme, but which cannot be accurately stated in a quantitative way, at least for the short and medium terms.

Lastly, consideration must be given to the investment criteria and priorities which would result from the optimum use of resources: import substitution, the suitability of importing certain specific goods or the relationship between the use of labour and capital in activities where a certain degree of substitution is possible.

In practice, there are certain obstacles standing in the way of the complete and accurate application of criteria for the channelling of resources and their priority of assignment. There are also factors which would make for rigidity if a change in distribution of investment resources were in view. These would be:

- (a) projects being carried out and supplementary and installation investment;
- (b) system of financing;
- (c) cases of administrative autonomy;
- (d) local and regional governments;
- (e) operating capacity of units;
- (f) critical inputs; and
- (g) amount of resources available.

The decision to give priority to the completion of projects and the carrying out of supplementary and installation work connected with them, could mean the application of resources in investment which might not have been considered necessary at the time when the original plan was carried out. When such carry-over projects are on a relatively large scale, a factor limiting the application of priorities which would tend to alter the composition of public investment may be encountered.

/The system

The system of financing usually sanctioned by legislation may have restrictive effects when the specific allotment of resources is relatively large. It is usual to find in a system of this kind that some activities enjoy relative abundance of resources in comparison with others, and that if such legislation did not exist the resources would be distributed under the programme in different proportions. In such cases, there is no alternative but to amend legislation, which is not always easy, or to have recourse, as occurs in practice, to a broader interpretation of the relevant provisions allowing for a certain degree of flexibility in the use of the resources allotted.

Decentralized administrative organization is also usually a limiting factor for two main reasons: (a) because it is usually linked to a specific allotment of resources, and (b) because administrative autonomy means that there is usually no obligation to adopt specific recommendations of the planning bodies. No value judgment of any kind is intended of autonomous administrative systems; attention is merely being drawn to the fact that while the use of priority systems in units of the central administration does not lead to delays, in autonomous bodies progress has to be made by persuasion and by demonstrating the virtues of a plan; otherwise, special mechanisms have to be established.

A similar situation arises with local, provincial, state or municipal governments, particularly in those countries where such governments have political autonomy and consequently have resources and policy making powers of their own. It could be imagined, for example, simply as an illustration, that no priorities had been laid down in the overall programme as between the paving of town streets and country roads on the one hand and projects of a communal nature in urban centres on the other. The imposition of priorities in this respect would limit the freedom of action of the local government agencies and units specializing in such investment work, and it should not be forgotten that the units here referred to have means of obtaining their own funds for such purposes.

If autonomous agencies and local governments receive contributions from the national budget, it then becomes possible to exercise a certain
/degree of

degree of influence over investment and bring it into line with the general purposes of the programme.

The operative capacity of units may also be a factor limiting the application of priorities in the short or medium term. For example, a decision could have been taken to give priority to complementary investment or to investment for stimulating the development of a particular economic sector, but if the unit responsible for the work is not technically qualified to put the investment into effect or provide the services required, then the resources set aside for the purpose, cannot be used. In such a situation, resources will have to be allotted in the first place for providing the unit with the necessary skills.

International technical co-operation or the contracting of services abroad may contribute in such cases to solving the problem, until the country is able to train its own skilled personnel.

Lastly, a further factor which should be considered as limiting the application of distribution criteria of resources is the scarcity of certain given factors such as imported goods or the exiguity of total resources available in relation to the needs of the country. In reality, such factors have even wider scope, because it is they which limit a country's overall development possibilities. They are accordingly considered as part of the study of the alternatives arising in a general development programme.

4. Preliminary allocation of resources by the central office to each of the various units

On the basis of the series of studies described in the present report, the central planning office or body would have the following material: (a) a projection of the resources available for the activities to be covered by the plan; (b) quantitative and qualitative data permitting a fairly accurate determination of the allocation of resources, or criteria of priority and guiding principles for making the allocation; (c) a specific diagnosis of the system of public investment, and (d) precise information as to the resources committed and the plans of each of the administrative units.

/With this

With this basic information the central office will be in a position to make a preliminary distribution of resources among all the bodies concerned, and formulate what might be called an annual financial plan for the short and medium term programming period.

This plan would indicate the resources that would be available to each agency, classified according to the various sources. For this purpose the central body will first have reviewed the financing programmes submitted by each agency in response to the technical inquiry. That is, it will have considered, for example, the projections relating to operational funds, tariffs and the use of external and internal credit, in the light of the financing policy of the public sector, and also in relation to the price policy implicit in the general development programme.

The financial plan will contain total allocations for some bodies, and for others specific allocations for particular programmes and projects known to and in principle agreed to by the central office.

Institutional considerations may lead to the drawing up of a plan covering the activities of units of the central government and the contributions from the general budget to decentralized bodies and local governments. However, the central body, on the basis of its technical studies, would know the total amount of the resources of the administrative authorities not covered by the plan.

In conjunction with the formulation of this financial plan, the central body could make proposals and recommendations for any administrative measures of economic policy that it considered necessary for carrying out the plan.

Lastly, the central body, using the studies carried out on the basis of the background data described previously, would already have begun in this financial programme to establish a public investment policy consistent with the country's general development programme. The next step would be to inform the various agencies of the preliminary allocation of resources, and provide any background information that might be of interest to each body, together with rules and instructions to enable the bodies to adjust their plans and work out projects accordingly within a given period.

/The following

The following information and instructions should be transmitted to the various bodies:

- (a) the general considerations and basic data on which the programme for the allocations of funds was based
- (b) specific priorities relating to the agency's activities
- (c) rules and instructions about the use of resources and criteria for the evaluation of projects
- (d) any conclusions of the diagnosis that might be of interest to the agency
- (e) instructions on the co-ordination of the agency's programmes with those of other bodies
- (f) rules for submitting the plan to the central body or office, so that the latter can undertake the task of co-ordination and final evaluation.

5. Preparation of plans in the executive agencies

In accordance with the programming system that has been outlined in this report - and which is essentially that applied in practice - the basic responsibility for formulating programmes and projects rests, in principle, with the executive agencies.

These agencies should adjust themselves to the allocation of resources made by the central body, although they will of course maintain contact with that body for the purpose of discussing any changes that may be considered essential. Sometimes a comparatively small change in funds can considerably improve the quality of a plan.

At this stage of the work it would be to the general advantage that the central programming offices or bodies and the budget office should collaborate with the executive agencies.

One important aspect is the degree of detail or specification with which the plan should be worked out in the agencies. Here there should be a distinction between the plan of execution for the first year and the plan for subsequent years.

During the first year the plan in effect constitutes the budget for the following year. Consequently, in accordance with the technique

/of programme

of programme budgeting, it should be submitted accompanied by all the information required for its consideration by the country's legislative bodies. It must also be remembered that the plan for the first year will be put into effect immediately, and will contain details that will not be necessary in other years, and which may not even be known at the time, such as detailed production targets and the specific allocation of investment funds. In other words, in subsequent years the plan could allocate resources in a more general way for groups of projects, without making individual allocations.

6. Inputs of goods and labour

Thus far the financial consistency of the plan has been dealt with, but there should also be an analysis of the consistency between the use and availability of physical resources and labour, within the general framework of the economy. Thus the programming bodies should also know the quantity of goods and the different types of labour required by the plan. Consequently the bodies concerned should supply this information, or at least indices and technical data so that the central office can make the analysis.

As already stated, the individual bodies often have no systematically compiled data on inputs of materials and labour, especially when a substantial part of the investment is made through private contractors. In its first stage the investigation could be confined to those inputs which are in short supply. Moreover, when the annual amount of investment planned is not much higher than before, and there is no marked change in its composition, some idea of the possible supply of inputs and labour can be obtained by analysis of recent experience. In any case, there still remains the alternative of narrowing down the inquiry even further by confining it to certain essential materials and to skilled labour.

It is particularly important to analyse the different types of skilled and professional labour needed for the execution of investment projects and the provision of services, since in nearly all Latin American countries this constitutes a serious limiting factor. There

/must be

must be no risk of the situation that occurs all too frequently, in which hospitals or schools are built that cannot begin to operate, even when fully equipped, for lack of doctors or teachers. Consequently it should be stressed that in determining the essential inputs for each project, items required both for the execution of the project and its eventual operation should be included.

The specification of inputs should continually improve in the individual agencies until it is an established practice that each programme or project should be accompanied by this information. The introduction of the technique of programme budgeting will accustom the agencies to making exact analyses of this type, and they can establish technical and statistical indices that will enable them to make these estimates easily and rapidly.

Another vital item of information in Latin American plans is the determination of the requirements of imported intermediate and capital goods, in order to establish the direct effect on the balance of payments and to evaluate specific projects.

If the appropriate adjustments are made on the basis of these inquiries, there will be a marked improvement in the rate of execution, and there will be much less danger that in an emergency excessive measures will be taken, while in addition an incentive will be provided for studies on economic substitution of materials.

7. Final shaping of the programme

The programmes prepared by each unit must be reviewed by the central programming office or agency. This part of the work will be relatively simple in so far as there has been close collaboration throughout and the recommendations and instructions of the central agencies are shown to have been complied with.

The chief responsibility of the agencies referred to is that of checking the compatibility of each of the plans submitted with the overall and sectoral development programme and co-ordinating the programmes of the various units.

Co-ordination may be effected at two general levels: (a) that of projects and programmes prepared by one and the same body,

/co-ordination of

co-ordination of which is incumbent upon the sectoral programming office concerned; and (b) that of the programmes of different units, for the co-ordination of which the central programming agencies are responsible.

If this central co-ordination is to be successfully effected, the programmes must contain detailed information on the sequence of execution of projects, such as, for example, dates of initiation and completion, and construction deadlines for supplementary works.

Similarly, the central agency will need to review the financing programme put forward by each unit with its corresponding plans. As will be recalled, the central office will have prepared a preliminary financing programme into which changes may have been introduced by the various units in respect of its sum total or its composition by sources of funds.

Another aspect of the work of the central agency is the co-ordination of the economic policy measures or lines of action proposed by the different bodies as means of attaining the objectives of public investment in relation to overall economic policy.

Obviously, basic measures relating to fiscal, tax and internal and external credit policy, income distribution objectives, etc., will be considered and decided upon within the framework of overall policy, of which, in reality, they constitute the essence. But there are other measures more closely connected with the activities of public bodies that the central agency should analyse on this occasion. Under this head may be considered, for example, (a) the compatibility of the tariff policy of a government body in relation to overall price policy and to the price policy of competitive services; and (b) alternative methods of financing new projects, on the basis of the budget, by means of taxation earmarked for specific purposes or through levies on the use of services.

Lastly, the various units may have formulated proposals for the amendment of legal or administrative provisions which the central office must consider in order to make the corresponding adjustments or recommendations to the government organs concerned.

8. The preliminary public investment programme
and its progressive improvement

It is suggested in the present report that the programming process may best be begun by immediately forging ahead with programming for the public sector, through the remodelling of the budgetary mechanism and the formulation of short- and medium-term programmes for public expenditure in general and public investment in particular. It must be stressed, however, that the minimum prerequisites for such programming will be a diagnosis of the country's socio-economic development problems, aggregate and sectoral growth targets and a decision as to the characteristics or strategic approach of the policy to be applied. Further requirements will be a detailed evaluation of the problems of the public sector and a study on the status of each of the agencies responsible for the execution of projects, of their investment programmes and of the other aspects set forth in the section of this report which deals with the diagnosis.

A special aspect indicative of the urgent need for the programming of government activities derives from the fact that the programmes or projects included in the public sector's budget for a given year tie down resources not only in that year but also in those that follow, up to the date of completion of the projects concerned. Consequently, the need to improve the allocation of resources, even if only by gradual stages, is obvious.

Lastly, the diagnosis of the status and prospects of public investment, as regards the low overall level of productivity, the excessive piling-up of projects, failure to install the facilities required for entry into operation and to execute supplementary works, etc., indicate that one of the immediate aims of programming will be the remedying of the existing state of affairs.

To sum up, the minimum work programme in relation to the initiation of the programming process should achieve the following objectives in the shortest possible time: (a) allocation of budget resources on technical programming bases; (b) adoption and application of measures to place public investment on a sounder footing and improve the efficiency of the system;

/(c) channelling

(c) channelling of public investment in accordance with the requirements of the development programme; (d) immediate organization of teams of technical experts to prepare investment projects; and (e) first steps towards the establishment of the mechanism of analysis and programming for the public sector.

Later, as progress is made with the analysis relating to sectoral programming, it will be possible to adjust and to define in greater detail targets which in the preliminary programme may have been contemplated in general terms, especially for the last years covered.

The improvement achieved in the capacity of the various units will gradually enable techniques for the preparation, selection and evaluation of projects to be introduced and systems of co-ordination to be perfected, until programming operates in conformity with a work schedule closely linked to the budget mechanism. Thus, every year the medium-term public investment programme will be converted into the Budget for the Public Sector, which will be the instrument through which it is executed. Consequently, the programme will be adjusted every year in accordance with the experience acquired in the course of its implementation and with overall development prospects.

