

NATIONAL ACCOUNTING AS A PLANNING TOOL IN LESS DEVELOPED COUNTRIES: LESSONS OF EXPERIENCE

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This paper is directed at the following question: How far is the national accounting system as developed in the industrially advanced countries and recommended by the United Nations applicable and useful to countries at an early stage of development? In order to examine the suitability of this tool, the nature of economic policy decisions and their dependence on macro-statistical constructs are analysed, the emphasis being on planning as actually undertaken in the field or going to be undertaken in the near future and not on planning activities as possibly ought to be attempted. The conclusion reached, based upon personal experience in Africa, the Caribbean area, Brazil and Venezuela, both as "producer" and "user" of data, is that planning is mainly limited to the public sector. Comprehensive plans, prepared with the assistance of foreign consultants, were generally forgotten soon after publication, the driving force behind those plans being external pressure by bilateral donors and international agencies and propaganda-prestige motives. Real over-all economic management or consistent medium term planning of the whole economy never appeared to be an important factor in the decision-making process, possibly because those concepts are far too abstract and do not have short-term impact.

The role of national accounting should therefore be limited to the provision of a general framework and factual support for public sector planning activities. In practice the United Nations system has been found far too complicated and ambitious, not sufficiently development planning oriented, and not suitable to the limited statistical resources available in the developing countries.

The paper recommends the publication of several detailed "case studies" in national accounting, hoping that those studies might help to identify types of accounting systems appropriate to different existing constellations. In the meantime a drastic scaling down of the United Nations system should be undertaken; we should try to equate demand and supply of relevant information.

In the final part, the paper considers planning requirements (timetable and flexibility, information required for a general assessment of the economy, crucial role of the public sector, relative precision), statistical requirements (resources, data available, priorities, international reporting) and decision-makers' requirements (compactness, simplicity, background information, wishes of external aid donors) and recommends, as an interim measure, a simplified system of national accounts consisting of eight main tables.

How far is the national accounting system, as developed by the United Nations and used in many industrially advanced countries, applicable and useful to countries at an early stage of development? This question has been raised at one time or another by a variety of people but especially by planners and statisticians who live or work in those developing countries.

National accounts are an aid to public decision-making and in the specific context of developing countries, a tool in the planning process. In order to examine the suitability of this tool, the nature of economic policy decisions and their dependence on macro-statistical constructs has to be analysed first of all. In other words the present stage of planning in countries at an early stage of development has to be examined, the emphasis being not on how planning should be done—and there exists sufficient literature on this subject—but on planning as actually done in practice, today and in the near future. Once the actual state of planning is agreed upon, without entering into the domain of value judgements, we can analyse the suitability, applicability and operational value—from the

planners' point of view—of national accounts. Other possible tools and solutions—the basic data versus economic aggregate controversy, priorities, optimum use of scarce statistical resources, timetable (can planning be postponed until improved data in sufficient quantity are obtained?)—should also be examined, all this as relevant to the kind of planning the developing countries are undertaking or going to attempt in the near future and not from the point of view of planning that somebody believes the countries ought to attempt.

As the observations included here are based upon personal experience in some developing countries, one should, at this stage, introduce his credentials. The author of this paper has worked on problems of economic and social development for the last twenty-five years, both as “producer of data”—in central statistical offices—and as “user of data”—in planning agencies of several countries. The lessons of experience refer mainly to West Africa (1958–68), Brazil and Venezuela (1969–70) and the Caribbean area (1971–72).

Discussing the problems of national accounting with planners and statisticians of many less developed countries, and trying to apply the international recommendations, one has the feeling that there are two separate worlds: a system of national accounts of the mind, a conveniently tidy and self-balancing scheme constructed without taking into account the real situation in the less developed countries, and the actual existing conditions as reflected in the practical uses of national accounts estimates, the state of basic data, and the resources available. As has been said about other problems, no map contains both these countries, and what sort of system you produce will depend on which of them you have been living in. As a “producer” and “user” I feel very strongly about this gap; if the tone of some of my remarks can be considered rather sharp, one has to take into account that close personal contact with the problems of the least developed countries instills, for many reasons, a sense of impatience and urgency.

At the same time I do believe that our role in development planning is apt to consist not so much in high-powered analysis, but in opening the doors of thought to the simplest propositions and in assistance in translating these simple propositions into concrete, implementation-oriented and practicable programmes or measures.¹

This paper is divided into two parts. The first part, after examining the many different meanings of planning, deals with the actual planning activities in the surveyed countries, reaching the conclusion that at the present stage of development only public investment and public intervention planning is required and possible. The second part examines the kind of data required for this type of planning and discusses the role of national accounts with special reference to the system recommended by the United Nations. The last part discusses national accounting problems and issues in the light of experience in some developing countries, arriving at some practical conclusions and suggestions.

¹R. M. Barkay, “The Statistical Macro-economic Framework Needed in Development Planning in Africa,” *African Studies in Income and Wealth*, International Association for Research in Income and Wealth, Bowes and Bowes, London, 1963.

I. THE NATIONAL DEVELOPMENT PLANNING PROCESS IN LESS DEVELOPED COUNTRIES

1. *Planning Activities*

Politicians and administrators have their fashions just like everybody else, and this is only too well exemplified by the present attitude to planning in the developing countries.

Every Government has established a planning unit and nearly every Government has published at least one document called "Development Plan" or "National Development Plan."

In very general terms the word "planning" refers to the creation of a national programme of activities for achieving developmental objectives of the nation, but this word is now used in the developing countries in so many different senses that one cannot make much progress in discussion without indicating precisely what one is writing about. In practice, any or all of the following activities are considered "national planning" by the authorities of the less developed countries.

- (a) current economic advice on specific problems
- (b) economic survey with a macro-economic presentation of the real flows
- (c) discussion of likely developments in the near future
- (d) extrapolation of national accounts
- (e) very broad policy statement of developmental goals and aims, generally not quantified
- (f) list of proposed Government sponsored projects
- (g) sectorial development planning
- (h) regional development planning, e.g., agricultural settlement
- (i) comprehensive planning
- (j) multinational planning
- (k) supervision of plan implementation

2. *Comprehensive Planning*

Why has the planning function, or rather some planning activities, as undertaken by the less developed countries become so fashionable? Why have Plans, some of them even elaborate, been published with so much fanfare and after a short period been forgotten even by the officials who prepared them? This is a basic question which has to be examined specifically and directly because it goes to the very root of our problem of data actually required for planning activities.

During off-the-record discussions with many politicians and administrators it appeared that the real as opposed to declared reasons for embarking on planning and plan preparations could be grouped into two main classes of factors: external pressure by bilateral donors and international agencies, and propaganda and prestige motives. Overall economic management never appeared to be an important factor, possibly because this concept is far too abstract and does not have a short-term impact.

This motivation is of crucial importance in understanding the shortcomings of the planning process and plan implementation. If you are not really convinced of

the necessity of the development plan and prepare a plan only because you are forced into this type of activity by a foreign agency, you try to do as little as possible of basic work and hope it will be sufficient to pass the scrutiny of the foreign donor. If you prepare the plan for prestige reasons and propaganda purposes you try to quantify your hopes without taking into account the real possibilities of your country. High rates of growth of output are quoted, innumerable projects are included and the object is to formulate the plan on as grandiose scale as possible. Under those conditions the preparation of reliable data on actual performance of the economy might be contrary to the goal of the development plan.

Many Latin American countries prepared development plans just for external consumption—as means of qualifying for aid under the Alliance for Progress.² The largest Latin American country—Brazil—invested 75 days in the preparation of the Three-Year Plan for Economic and Social Development (1963–65). The development plans of the Caribbean Associated States were (and are) really shopping lists, submitted to the British Development Division. The Barbados Development Plan (1969–72), which deals with public sector expenditure only, is also foreign assistance orientated. In the case of Trinidad and Tobago the propaganda factor was probably more important. Although there is no reporting on performance, it appears that very few programmes specified in the Third Five-Year Plan (1969–73) were actually implemented and the plan is only nominally in operation. Jamaica developed without the benefit of a development plan as the last comprehensive public sector investment programmes covered the period 1963–68. The newly elected Government is at present reviewing the functions of the Central Planning Unit. The Development Plan for British Honduras-Belize (1963–70) has been prepared for the Government by consultants appointed under the United Nations Programme of Technical Assistance.

The situation is not basically different in West Africa. In many French speaking countries the plans were prepared by foreign consultants for foreign assistance purposes with little participation of national administration (e.g., Dahomey, Togo, Gabon). The Upper Volta Plan was even based upon a growth model.

In Niger, the comprehensive Development Plan (“Perspective Décennales”) 1965–74, prepared by a group of French advisors, had little relation with the existing possibilities and insufficient absorptive capacity of the country and proved in practice over-ambitious and superficially over-detailed in objectives and was never translated into practical terms. Niger has now adopted a rolling programme system: every year a four-year public sector investment programme is prepared, while the overall development plan is rather a general framework, embodying mainly developmental objectives and required reforms.

Malawi has not produced a comprehensive development plan. However, some most useful projections have been prepared by the Economic Planning Unit and these have been used as a guide to policy in establishing the main financial

²The Declaration of Punta del Este, which launched the Alliance for Progress (1961), states *inter alia* that each of the countries of Latin America will formulate a comprehensive and well-conceived programme for the development of its economy.

targets and constraints, the outlines of a coherent development strategy being sufficiently clear.

In Liberia, where nearly all the public sector developmental expenditure is financed by foreign donors, mainly the United States, planning consisted of compiling a list of foreign assistance proposals.

Possibly the most frank expression of the role of a development plan, from the national Government's point of view, can be found in Ghana's Second Development Plan. Hope is expressed that international agencies and foreign Governments interested in Ghana "will study this plan carefully and consider whether there are any individual projects with which they can help."

In all those plans the macroeconomic forecasts or projections, if included, were really a part of background information and as far as could be ascertained, not used for making development planning decisions. It is interesting to note that in the Barbados Development Plan, for example, although the economic survey part clearly states that there are very few inter-industry relationships, the planning part claims to be using a modified input-output matrix based on the system of national accounts. At the same time the programmes part, "owing to lack of adequate data" consists basically of a list of public sector projects.

It is also relevant to point out that in many instances forecasts or projections are confused with targets. Very often one finds under targets statements of what the Government would like to achieve, not functionally related to the proposed interventions. Under those conditions "targets" are really mathematical projections important only for propaganda purposes.

The conceptual advantages of global or comprehensive planning are well known but unfortunately this type of planning is not yet suitable or relevant to the socio-economic conditions of most of the less developed countries, and one can fully sympathize with countries like Upper Volta which refused to accept the premature sophisticated planning proposals of foreign advisors.

3. Sectoral and Regional (Subnational) Planning

The preparation of sectoral or regional (for a certain area within the national boundary of a country) development plans may take place concurrently with the preparation of an over-all national comprehensive plan, but in many cases those plans are *de facto* independent of the comprehensive plan especially as far as timing is concerned.

In countries with a federal system of Government (e.g., Nigeria) the plans are prepared by the authorities of the political subdivisions but are limited to activities covered by those authorities. In Latin American countries where parastatal organizations are important (Brazil, Venezuela), development plans are prepared by those organizations, e.g., Corporación Venezolana de Guayana or several Brazilian authorities: Superintendência do Desenvolvimento da Amazônia (SUDAN); Superintendência do Desenvolvimento da Região Centro-Oeste (SUDECO); Superintendência do Desenvolvimento do Nordeste (SUDENE); Superintendência do Desenvolvimento da Região-Sul (SUDESUL); Superintendência do Vale do São Francisco (SUALE). In addition, special planning authorities are created. In Brazil, for example, the Government has created a

special group in charge of planning, guiding and supervising the activities of Federal agencies in the field of irrigated agriculture. This group—Executive Group of Irrigation for Agricultural Development (GEIDA)—created under the Secretary-General of the Ministry of the Interior—prepared the National Master Plan of Irrigation (a subsectoral development plan).

In countries of West Africa with a unitary form of government as well as in the Caribbean, regional or sectoral plans are generally the responsibility of the central planning agency. Only a few attempts at regional planning have been made, generally as a result of foreign interest and undertaken by foreign consultants, e.g., Development Plan for the Southeast of Liberia, Development Plan for Ghana's Northern Areas, Gros Islet Plan in St. Lucia. In the Caribbean Associated States, sectoral plans in the fields of education, health, water resources, tourism and to a certain degree agriculture and industry have been prepared by foreign consultants and the studies have been financed by foreign donors. Most of those plans have not been linked even to the annual budgets.

4. Multinational Planning

Some attempts at multinational planning have been made both in West Africa (e.g., Sierra Leone, Liberia) and in the Caribbean. After the dissolution of the Federation of the West Indies in 1962, the creation of the Caribbean Free Trade Area was announced (1965) and in 1968 the new Caribbean Free Trade Association (CARIFTA) Agreement came into effect. The less developed countries (Associated States and Montserrat colony) created at the same time a Common Market of seven territories: the Eastern Caribbean Common Market.

It is interesting to note that the economic studies, as prepared by the University of the West Indies, were based on the conviction that there were limited possibilities of multinational development in pursuing integration by the conventional route of removing trade restrictions and by establishing a common external tariff. The plans recommended integration of certain key sectors of production, e.g., by combining Guyana's and Jamaica's bauxite with Trinidad and Tobago's natural gas, but the final agreement was more of the conventional trade liberalization type. At present the CARIFTA Secretariat deals mainly with problems of customs duties and quantitative restrictions between member states as well as the harmonization of tax structures and of fiscal incentives to investment. A coordinated policy of agricultural and industrial development is under active study, but is being hampered by the lack of national development plans and, in general, of basic data.

5. Project-by-Project Planning

Development planning in the developing countries with whose economies I am familiar generally starts with the formulation of public sector investment projects and projects of "developmental" character. The proposals are then classified by industrial branch or departmental responsibility, combined in a single document and a chapter on financing added. That part is generally called "Sectoral Projects and Policies." To that result of the planning process a few chapters are added, e.g., survey and analysis of recent economic and social

developments, economic projections of population and gross domestic product, statement of policy objectives. Finally all the above chapters are combined into a single document called "Development Plan." Politicians, administrators and some practitioners consider the public sector investment part of the development plan the only really important part of planning activity.

Ideally the operating ministries, departments, agencies, etc., have prime responsibility for formulation of individual public investment projects, combining them into an integrated programme and carrying out or supervising the implementation. In practice most of those functions have been taken over by central planning agencies, because in the least developed countries the administration is generally not capable of undertaking development planning activities and the official contact with foreign donors is channeled through the planning agency.

Theoretical objections to this piecemeal approach to planning are well known: policy objectives and interventions are not necessarily related, priorities are not clear, the plan prepared in such a manner might not be evaluated or related to resources, there is no intersectoral coordination, imbalances might be created, there exists the possibility of duplication and waste.

On the other hand one must remember that the kind of planning (and data required for planning) which is right at a later stage of development might be wrong at an earlier one. In many developing countries the basic national objectives are clear-cut, the problems of resource allocations can usually be reduced to a few simple questions, priorities are obvious, the economies are not very articulated and lack complicated sectoral relationships and linkages. Under those conditions many of the theoretical objections to project-by-project planning do not apply in practice and an integrated and feasible public intervention programme of action can be constructed.

In nearly all the countries I am familiar with one of the main obstacles has always been lack of well-prepared, feasible development projects which could be submitted to international financial institutions; the financial aspect was seldom an obstacle. The project identification, preparation, evaluation and implementation function is, in the less developed countries, rightly considered the most important aspect of planning, a fact not always fully understood by planners trained mainly in macro-economic model building.

II. BASIC DATA REQUIRED FOR PLANNING

1. Factors Influencing Statistical Guidelines

Every planning agency complains that there is a lack of essential planning data, that statistics are incomplete, inaccurate, inconsistent, out of date and sometimes even biased. Many experts consider lack of information a major stumbling block to effective planning. On the other hand every statistical office claims that planners are unable or unwilling to understand the problems faced by a statistician in a developing country: lack of interest on the part of decision-makers in statistical work and therefore low status of statisticians, scarcity of professional talent, lack of budgetary support, lack of request for planning data submitted in the proper manner and in time. Planners do not seem to realize that statistical data

can be produced only after prolonged efforts and therefore statisticians must be always ahead of the planners if they are supposed to provide the planning agency with data when required. Statisticians therefore require detailed information about the kind of planning the central planning agency wants to undertake in the future, information which is generally not available. This lack of close cooperation with national planners has resulted in statistical offices in the developing countries being more influenced by international statistical recommendations and purely statistical considerations than by planning needs. International organizations are naturally interested in uniform definitions and classifications in order to permit international comparison of national data, but those definitions and classifications are not always suitable to local conditions. Also, priorities of international organizations are not necessarily identical with national statistical priorities, but in practice, it is easier to obtain assistance from abroad for specific programmes. The result is that many statistical schemes are constructed for the convenience of international users or national producers of statistics and not in accordance with actual planning requirements. Another difficulty is the conflicting recommendations made by different advisors and agencies: some believe that priority should be granted to basic statistical series, others consider the preparation of national accounts more important.

Roughly speaking, there are three views on data required for planning and therefore on statistical priorities in the developing countries.

- (a) The statistical office view—macroeconomic estimates being as good as the basic data used, priority should be granted to strengthening the basic statistical series.
- (b) The planning agency view—planning cannot be postponed until the statisticians implement the ambitious statistical schemes, not always relevant to planning needs, and one has to use statistics that are second-best but available. National planning, especially if comprehensive, requires aggregative estimates and therefore national accounting should be granted the highest statistical priority.
- (c) The decision-makers' view—there is a divergence between the actual needs for data and the ambitious and costly proposals of both the statisticians and the theoretical planners. Taking into consideration our resources and capabilities, we shall, at least in the near future, be able to adopt only simple forms of planning. Data supply function should therefore be limited to this type of planning, using mainly the existing statistical resources.

2. The Role of Aggregates

The main conclusion of the review of the national planning process in the surveyed countries has been that, at the present stage of development, the emphasis is on public investment and intervention planning activities. Other kinds of planning, be it comprehensive or even sectoral, appear to be premature.

For this type of planning some basic quantitative and qualitative information, some aggregative and some detailed, is required. The detailed kind of data—the basic statistical series—vary from one developing country to another in accor-

dance with the socio-economic and physical structure and the planning priorities. The data might therefore differ from one country to another even if the different countries are at similar stages of development, but certain basic information is essential for effective development planning or any kind of national decision making.

A development planner must have, at least in his mind, some sort of picture of the economy he is studying. As Wolfgang Stolper puts it in his book about Nigeria, *Planning Without Facts*:³ “Without a framework, individual pieces of information remain largely meaningless. The picture may be blurred and uncertain but it is essential to have one, if the programmes to be developed are not to hang in the air.”

The natural tendency is for the picture to be “imported,” i.e., similar to the structure of the planner’s own developed economy, or, if he is a native of the developing country, then similar to the structure of the country in which he was educated. This tendency is perhaps strongest in those countries where national accounts data are weakest or absent altogether—no alternative to thinking in “imported” terms is present. As Dudley Seers observes in “Why Visiting Economists Fail”:⁴ “What usually happens is that the model the economist consciously or unconsciously uses turns out to be the sort of model suitable for a developed country. This common mistake of transference . . . is encouraged by most economic textbooks.” One of the important tasks is to develop an alternative framework in order to replace the “imported” model with a model of the real framework of the country in question.

As pointed out in a paper of mine about Liberia—“National Accounting with Limited Data”⁵—the framework need not be complete for the planner to be successful, nor must the national accounts estimate be exact. In development planning, the interest is in significant changes in the short run, a point made by Kuznets. Great precision of measurement is not always necessary because the interesting and important changes will be sufficiently marked to show up with even crude measurements. In like fashion, only in those sectors that are likely to undergo substantial change, e.g., as a result of planned programmes, are detailed national accounts important at all. And it is in precisely these sectors that the necessary data with sufficient accuracy are readily available or can be produced within the planners’ time-table.

By focusing on the relevant parts of the economy and leaving the rest in the background, the important components for planning purposes are not blurred. On the other hand one of the ironies of national accounting or statistical work in developing countries is that the more ambitious, comprehensive and complex is the system constructed, the less likely is it to be successful, owing to practical limitations of data, managerial capabilities and lack of skilled manpower.

National accounts are therefore an essential tool for development planning in the surveyed countries, provided the system is compact, sufficiently simple to be

³W. H. Stolper, “*Planning Without Facts*,” Harvard University Press, 1966.

⁴D. Seers, “Why Visiting Economists Fail,” *Journal of Political Economy*, Vol. LXX, No. 4, August 1962

⁵R. M. Barkay, “National Accounting with Limited Data,” Economic Development Reports, No. 82, The Center for International Affairs, Harvard University, 1967.

constructed with the existing resources, sufficiently precise and can be constructed within the planners' time-table. All recommendations in the data supply field should be judged in accordance with the above criteria and the three basic tenets of our profession—service, training and research—should be geared accordingly.

3. The United Nations System of National Accounts

The full system of national accounts as outlined in the U.N. publication should, according to the views of the U.N. Statistical Office, “furnish suitable goals for methodically evolving the national accounts and series of basic statistics of a country irrespective of her stage of economic and social development.” However, as rightly pointed out, it will take most developing countries many years to build the body of basic data required to compile the accounts and tables of the system, all of which, according to the United Nations recommendations, are needed for purposes of evaluating, planning and furthering economic growth and social improvement. International guidance is given as to priorities in the compilation of the accounts and tables, the final goal still being the full system. In addition some supplementary accounts, classifications and tabulations of the full system are suggested, to some extent of experimental nature.

The highest priority has been assigned by the U.N. Statistical Office to the consolidated accounts of the nation, consumption expenditure estimates, production accounts by main industries, composition of gross capital formation, external transactions and some income, outlay and capital finance accounts.

The following main supplementary accounts, classifications and tabulations of the full system, especially designed for the developing countries, are suggested by the United Nations Statistical Office:

1. General table “Supply and Disposition of Goods and Services.” This table (Table No. 28) which is a “simplified” version of some standard tables, records the total supply of commodities and other goods and services, and the disposition of the total supply. On the supply side the flow is built up from domestically produced commodities, imports (c.i.f. plus import duties) and transport and distribution margins. Other goods and services locally produced consists of government and private non-profit and domestic services of householders, government current direct imports and net purchases abroad by resident householders. The disposition of goods and services consists of intermediate consumption (by industries, producers of government services and non-profit institutions); final consumption (householders, government), change in stocks, fixed capital formation and exports.

2. Classification of establishments into privately owned establishments and public sector establishments (publicly owned or controlled).

3. Classification of establishments according to technologies, organization and management into modern and traditional.

4. Classification into rural and urban areas defined in terms of density of population and the prevalence of non-agricultural activities (accounts for selected areas).

5. Supplementary sets of accounts in respect of “key kinds of economic activity.” Here a somewhat different approach can be found as the set of accounts

should yield a body of coherent data on all the transactions of the selected kind of producers, e.g., mining enterprises. If all enterprises are covered those accounts can be considered sectoral accounts covering real and financial flows.

6. Classification of gross output of an economy into production for the market and subsistence production (Table No. 27).

The difficulties faced by the United Nations or any other organization trying to devise national accounts of world-wide applicability are enormous and I believe that a satisfactory solution to international standardization has not yet been found. Too much emphasis is granted to the international comparison of country data and one has the feeling that the whole approach is vitiated not merely by the usual tendency to generalize from the special case of industrially advanced countries but also by the tendency to generalize from the special case of a particular type of developing country. On the other hand, as soon as one leaves the general principle level and descends into practical details, one tends to lose the general applicability of the scheme.

As rightly stated by the United Nations, the developing countries differ in many aspects such as the stage of economic and social development reached, endowment in respect of natural and human resources, economic and social institutions, attitudes and planning policies. These circumstances should naturally be reflected in the national accounts, but it appears questionable that additional breakdowns and tabulations, as recommended, are the best solution. Statistical schemes should be tailored to the specific needs and requirements of a country and sometimes it might be necessary to sacrifice details of international comparability, if it is not in the interest of the country. Anyhow, this is preferable to the present practice of many developing countries: fitting of the basic data to alien concepts and use of interpolation to fill gaps in data, and then extrapolating from year to year.

The present U.N. system is far too complicated to be used and, one would even venture to say, even understood by many national accounts statisticians in the developing countries and in this respect the latest 1968 edition is really a step backwards from the previous simpler version.

At the same time many conceptual problems relevant to many developing countries have not yet been solved. In economies in which monetary exchange and the division of labour have progressed very far, the rule of separation of household-type activities from enterprises and the inclusion in total product of the production for home consumption do not constitute important practical problems because by far the greater part of production takes place for sale in the market. Two main imputations are made: value of own agricultural production consumed by the farmer and rental imputation (home ownership is regarded as trade) and included within the boundary of production.

These conventions have also been applied to the subsistence economy without solving the many theoretical and practical problems involved. The division of the economic system into sectors or groups is fundamentally based upon the view that different forces and motivations influence the behaviour of different parts of the economy. As the subsistence sector is, by definition, differently motivated from the market economy we could ask if a common denominator can be found so long as the scale of values and the whole outlook of

the subsistence population are so different from the market economy. Can the subsistence sector estimates be used for welfare, productivity, income behaviour or structure analysis? In a subsistence economy, economic life is characterized by the isolation of the economic unit and by the independent valuation made by each isolated unit of the production results. Can therefore a meaningful average aggregate be found? What is the significance of national value aggregates in a country in which the unit of national currency does not serve as a nation-wide standard of value? Most of these theoretical questions have not yet, in my opinion, been answered satisfactorily. At the same time it should be remembered that even if we solve the theoretical questions, we will be still faced with practical identification and valuation problems.

First priority should therefore be granted to estimates of the monetary activities and only global estimates prepared in respect of subsistence production, mainly as a framework and proper perspective for the monetary economy.

The United Nations Statistical Office seems to be recommending to the developing countries to attempt to estimate domestic product from the expenditure side, possibly using the commodity flow approach. It has been my experience that the value added approach by summing up of the returns to labour and capital is generally more useful from the point of view of data producers and users. The approach I have used was to estimate industrial origin of gross domestic product at factor cost (monetary economy): return to labour and capital, direct taxes and depreciation by industry. The essence of this approach is not merely to arrive at totals, but to collect and present in a systematic way the key components, giving first priority to the dynamic parts of the economy and to the public sector. But presentation is important. Good figures should never be mixed with guesstimates as is unfortunately done in many cases in national accounting, not only because the components are at least as important for planning purposes as the aggregates, but also because the reliability of the totals cannot properly be judged if the two kinds of figures are not segregated.

Many other deviations from the United Nations system were found useful, the most important being the explicit differentiation, by industrial origin, between domestic and national product, the inclusion of "foreign aid" in all accounts and the use of "return to labour" concept instead of "compensation of employees."

In order to distinguish between domestic and national product, information essential for planning purposes, it is necessary to have a clear-cut definition of national (resident) and foreigner. The United Nations follows the International Monetary Fund definition, which involves only one broad criterion: an individual's residence is where his "center of interest," understood in the economic sense, lies. In my experience this definition could not be followed and all non-nationals have been considered as foreigners. The reason is political: Governments will not consider certain ethnic groups as nationals, even if they were born in the country. This approach therefore suits better the existing planning objectives.

The United Nations system deals only incidentally with foreign assistance activities. In West Africa and the Caribbean, as in many developing countries, the assistance rendered by international organizations or within the framework of bilateral agreements plays a crucial part in the whole field of government

development activities, but is generally not being recorded or estimated. In order to present a complete table of transactions within the public sector, essential for coordination and planning, foreign assistance activities must therefore be delineated.

In the United Nations system the concept of “compensation of employees” includes all wages, salaries and supplements, whether in cash or in kind, payable to employees. For statistical reasons it was often impossible to distinguish between employees and self employed. Use was therefore made of the concept of “return to labour”, which consists of compensation of employees as well as net income of sole proprietors, partners of small enterprises, independent professional men, etc. At the same time, it has been attempted, whenever possible and relevant, to list the wage bill separately.

It appears that there are grave difficulties in adaptation of the full system of United Nations national accounts to those developing countries I happen to be familiar with. In addition to the theoretical difficulties, the system is far too complicated and ambitious, not sufficiently development planning oriented and not suitable to the limited statistical resources available in the developing countries. In many fields, progress has depended to a considerable extent on systematic and comparative research. Perhaps research can help identify different types of accounting systems appropriate to different constellations so that we will stop looking for the one best approach applicable to all possible circumstances. The publication of several detailed “case studies” in national accounting, including sources and methods of estimation, might also be a step in the right direction. In the meantime, through a drastic scaling down of our recommendations, we should try to equate demand and supply of relevant information.

4. A Simplified System of National Accounts for Less Developed Countries

The preparation of a conceptual and definitional framework or accounting system suitable for all developing countries is a task no single individual can accomplish. The purpose of the eight summary tables included here in the appendix is much more limited. It is hoped that this minimum simple system, as used in practice in several countries I am familiar with, might contribute to a more positive approach to national accounting in less developed countries and that the attached sketch will be taken into account when the new Accounting System for Developing Countries is elaborated. Progress beyond the somewhat global approach will depend on more detailed studies, probably on the lines of sector and subsector accounts.

The simplified national accounts framework as presented here takes into consideration the following factors:

1. Planning requirements
 - a. timetable and flexibility
 - b. information required for a general assessment of the economy
 - c. crucial role of the public sector
 - d. importance of domestic and national concepts
 - e. precision (relative) for short-term planning

2. Statistical requirements
 - a. the amount of basic information already available
 - b. statistical resources (staff, budgets) available
 - c. statistical priorities (blueprint)
 - d. possibility of enlargement (supplementary accounts according to specific need)
 - e. consistency with the UN system—common basis for international reporting and comparison
3. Decision-makers' requirements
 - a. the information is presented in a compact manner
 - b. the main tables are simple and can be understood by politicians and administrators
 - c. the accounts provide general measures and more important economic ratios, an essential background to the formations of government policy
 - d. government transactions are placed in their national context
 - e. the accounts answer most of the wishes of external aid donors.

The details of the estimating procedure, main concepts, sources and definitions are included, for example, in my two publications: *National Income of Liberia*, and *Public Sector Accounts of Liberia*; Department of Planning and Economic Affairs and Harvard Advisory Group, Monrovia, Liberia, 1968.

In my *National Accounting with Limited Data*, Economic Development Reports No. 82, The Centre for International Affairs, Harvard University, the size of the combined error of estimate of gross domestic product at factor cost (monetary economy), weighted by the relative importance of subsectors and industrial branches and on the assumption that the errors are not offsetting has been calculated in respect of Liberia to be about 7 percent. The aggregate appears therefore reasonably exact for short-term planning purposes.

The likelihood that change will bring real progress in the less developed countries is strengthened if change is guided by intelligence armed with essential facts. Under the existing constraints to development—political, social, psychological, economic and physical—and men being what they are, the formal presentation of information required for planning must be adapted to the planning needs and available resources and deal in terms of recognizable realities.

After all, the pursuit of a suitable accounting system is not a ballet dance: what matters is not the inherent beauty of posture but whether or not the system assists in generating dynamic results.

APPENDIX
LIST OF TABLES

- Table 1. Gross domestic product at market prices.
- Table 2. Industrial origin of gross and net domestic product at factor cost. Private sector, monetary economy.
- Table 3. Industrial origin of gross and net domestic product at factor cost. Public sector enterprises, monetary economy.
- Table 4. Gross domestic product originating in public sector agencies (general government).
- Table 5. National product and national income.
- Table 6. Public sector agencies (general government), expenditure and outflows, cross-classified by type and by purpose.
- Table 7. Public sector agencies (general government), consolidated account.
- Table 8. Gross domestic capital formation, by industrial use. Private and public sector enterprises, monetary economy.

TABLE 1

GROSS DOMESTIC PRODUCT AT MARKET PRICES

	Source		Source
I. Gross domestic product at factor cost	—	IV. Private consumption expenditure	
1. Monetary economy		1. Monetary economy	Residual
(a) Private sector	Table 2	2. Subsistence activities	Global estimate
(b) Public sector enterprises	Table 3	V. General government consumption expenditure	Table 7
(c) Public sector agencies	Table 4	VI. Gross domestic capital formation	—
2. Subsistence activities	Global estimate	1. Monetary economy	
II. Indirect taxes	Table 7	(a) Private enterprises	Table 8
III. LESS Subsidies	Table 7	(b) Public sector enterprises	Table 8
		(c) Public sector agencies	Table 7
		2. Subsistence activities	Global estimate
		VII. Exports of goods and non-factor services	Direct estimate
		VIII. LESS Imports of goods and non-factor services	Direct estimate
Gross domestic product at market prices		Expenditure on gross domestic product	

TABLE 2
INDUSTRIAL ORIGIN OF GROSS AND NET DOMESTIC PRODUCT AT FACTOR COST
PRIVATE SECTOR—MONETARY ECONOMY

	Return to labour		Return to capital		Direct taxes	Subtotal	Provision for the consumption of fixed capital	Total	Summary employment data ^a	
	Nationals	Others	Nationals	Others					Nationals	Others
Agriculture, forestry, hunting and fishing										
Mining and quarrying										
Manufacturing										
Construction										
Electricity, gas, water and sanitary services										
Transportation, storage and communication										
Wholesale and retail trade										
Banking, insurance and real estate										
Ownership of dwellings										
Services										

^aFor manpower planning, data on incomes should be linked to data on employment: income from each activity or income equivalents of different tasks should be matched by corresponding labour inputs, calculated—if possible—in terms of manhours.

TABLE 3
INDUSTRIAL ORIGIN OF GROSS AND NET DOMESTIC PRODUCT AT FACTOR COST
PUBLIC SECTOR ENTERPRISES—MONETARY ECONOMY

	Return to labour		Return to capital		Direct taxes	Subtotal	Provision for the consumption of fixed capital	Total	Summary employment data ^a	
	Nationals	Others	Nationals	Others					Nationals	Others
Agriculture, forestry, hunting and fishing										
Mining and quarrying										
Manufacturing										
Construction										
Electricity, gas, water and sanitary services										
Transportation, storage and communication										
Wholesale and retail trade										
Banking, insurance and real estate										
Ownership of dwellings										
Services										

^aFor manpower planning, data on incomes should be linked to data on employment: income from each activity or income equivalents of different tasks should be matched by corresponding labour inputs, calculated—if possible—in terms of manhours.

TABLE 4
DOMESTIC PRODUCT ORIGINATING IN PUBLIC SECTOR AGENCIES
(General government)

	National Government Agencies	External Aid	Total
Return to labour			
Nationals			
Others			
Return to capital			
National			
Other			
Subtotal			
Provision for the consumption of fixed capital			
Total			
Employment data (in terms of manhours if possible)			
Nationals			
Others			

TABLE 5
NATIONAL PRODUCT AND NATIONAL INCOME

	Source
Gross domestic product at market prices	Table 1
<i>Less:</i> Factor payments to abroad	Tables 2, 3 and 4
<i>Plus</i> Factor payments from abroad	Estimated
Equals gross national product at market prices	
<i>Less:</i> Provisions for the consumption of fixed capital	Tables 2, 3 and 4
Equals net national product at market prices	
<i>Less:</i> Net indirect taxes	Table 1
Equals National income	

TABLE 6
PUBLIC SECTOR AGENCIES (General Government) EXPENDITURES AND OUTFLOWS, CROSS-CLASSIFIED BY TYPE AND PURPOSE

	Return to labour	Current Purchases	Transfers to			Subsidies	Interest	Gross Capital Formation	Capital Grants	Financial Transactions	Purchase of Land	Total
			Households	Non-Profit Institutions	Abroad							
General administration												
Justice and police												
General research												
Defence												
Education												
Health												
Welfare												
Community services												
Agriculture												
Fuel and power												
Manufacturing												
Transport and communication												
Other economic services												
Public debt												
Total												

368

TABLE 7
PUBLIC SECTOR AGENCIES (General Government)
CONSOLIDATED ACCOUNT

Current Account	
Consumption expenditure National agencies External aid Current transfers to households and non-profit institutions National agencies External aid Current transfers to rest of the world Subsidies Saving on current account	Income from property <i>Less</i> Interest on public debt Indirect taxes Direct taxes on enterprises households Other current transfers from households Current transfers from rest of the world
Disposal of current revenue	Current revenue
Capital Reconciliation Account	
Gross capital formation National agencies External aid Capital grants Public debt (principal) Financial transactions	Saving on current account Capital transfers internal from abroad Loans internal from abroad
Outflows (disbursements)	Inflows (receipts)

TABLE 8
GROSS DOMESTIC CAPITAL FORMATION,
BY INDUSTRIAL USE—PRIVATE AND PUBLIC
SECTOR ENTERPRISES—MONETARY ECONOMY

	Private Enterprises	Public Sector Enterprises
Agriculture, forestry, fishing Mining and quarrying Manufacturing Construction Electricity, gas, water etc. Transportation, storage and communication Wholesale and retail trade Banking, insurance and real estate Ownership of dwellings Services		