THE EXTENSION OF THE UN SNA SUPPLY—DISPOSITION TABLE FOR DEVELOPMENT POLICY ANALYSIS[1]

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The relevance of national accounts data to the broad development planning process which spans varying time horizons is considered. Undue emphasis on aggregated conventional macro-economic variables and recorded monetary values may have distorted the real vision and objectives of development. At the same time, other important and measurable problems like regional and distributive imbalances have often remained unquantified in traditional planning models. The UN "Supply-Disposition" table permits a summary description of the basic structure of an economy which can be easily extended within the context of the complete SNA to embrace significant social features without resort to complex inter-industry relationships. The table, however, loses few of the important dynamic economic properties of a full I–O system. It retains the means of checking the consistency of both overall policy objectives as well as basic data and it enables governments to ensure the necessary equilibrium between physical resource flows and financing capacity in formulating their development plans. The system's internal logic, combined with its potential for greater relevance and flexibility and capacity for fairly rapid and regular up-dating, makes it a most useful tool for practical planning purposes. Case studies of Zambia, Fiji and Oman are used to illustrate the fundamental concepts and underlying schematic framework of the system and its flexibility.

1. INTRODUCTION

1.1. *Requirements for a Macro-statistical Model in LDCs*

The pattern of economic and social development in any country is the consequence of various interactions between the different resources, technology and people involved in the process of change. It reflects the fundamental values, motivations, incentives, objectives and attitudes of that society. The process of development is not restricted solely to economic change; it represents an attempt to transform people and their social environment within which economic activity takes place. The unqualified use of conventional macroeconomic data to measure such development can therefore be extremely misleading. But, the desired processes of change cannot occur in any haphazard fashion; nor, in general, do they take place in the absence of any internal and external constraints on policy. Many physical and financial obstacles to the development officially proposed will arise and the early identification of potential problem areas is imperative. The Government must therefore make a conscious effort to draw up a consistent and coherent statistical framework on which to base its various economic and social policies. It also needs a means of regularly monitoring socio-economic changes so that it can check progress towards the achievement of defined development goals.

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Essential, too, is the provision of relevant, adequate and up-to-date information on the basis of which the government can formulate and evaluate official decisions at all levels and for all appropriate time horizons.

1.2. *Relevance of Revised SNA (1968)*

A great deal of often unjustified criticism has been levelled at the UN Revised System of National Accounts (1968)—particularly by less developed countries—because the basic framework appears to have been drawn up primarily with the official aims and macro-economic objectives of the developed industrial nations (and Keynesian strategies and monetary policies) in mind rather than being concerned with the fundamental statistical and development planning problems of the low income countries.

The importance of extending existing conventional statistical methods and their related frameworks, such as the SNA, arises simply because these systems have been mainly developed in advanced industrial countries along too sophisticated and complex lines for application in less developed nations. The SNA has revealed the necessity for a reconsideration of the relevance of many international statistical classifications and frameworks to developing countries. The objective now is to enhance the usefulness of such systems to meet the LDC's own specific requirements for economic and social policy making. In particular, there is an urgent need to adapt the existing SNA framework to provide developing countries with an operational macro-economic statistical mode for practical policy guidance and plan formulation.

In principle, the SNA has sufficient inherent flexibility to allow a variety of statistical frameworks to be adapted specifically to the countries they are intended to serve and each model can be designed to have a clear policy focus and operational relevance. This is essential because it is well known, in many low income countries, that development plans and programmes have been hampered as much by the adoption of inappropriate frameworks as by the incorporation and use of irrelevant or inadequate data.

It should be recognised, however, that because there is a need to make inter-country comparisons, the United Nations and other international bodies must continue to seek for greater statistical consistency over time (usually in some detail) both within countries and between nation states. But, government statistical offices should not pursue such definitional uniformity at the expense of collecting relevant data more useful for national policy purposes. Almost all developing countries still need data relating to GDP, population, international trade, etc., but the requirements of international conformity may sometimes conflict with the greater need for direct internal practical usefulness. Given that statistical resources are particularly limited in developing countries and that the statistical offices are often under considerable strain, the priorities are clear, if a choice *has* to be made. Unfortunately, it takes time to establish and develop an adequate and relevant data base and, once instituted, it is expensive to alter. Futhermore, different types of developing countries sometimes have widely differing development priorities (and also therefore different data needs) and it is necessary to examine what sort of statistical system is required within the context

of the broader development planning objectives formulated by the low income country concerned.

2. The Supply and Disposition of Goods and Services

Table 28 of the revised SNA, "The Supply and Disposition of Goods and Services", is a simplified and amalgamated version of the standard table 2, in current prices, and table 11, in constant prices, of the complete accounts. It also represents an extension of table 2a in that it incorporates all goods and services and not just commodities. In many respects it represents an extremely useful initial basic planning framework for low income countries because it demonstrates, in simple summary form, the broad "industrial" structure of an economy whilst also indicating the general pattern of income flows and resource allocation. It also possesses an inherent consistency and logic by virtue of the defined overall balance between aggregate supply and demand at purchasers' values. Assuming it is kept up to date, the table provides not only a comprehensive data background but also a useful tool for general analytical and policy purposes. It deviates from the structure of the full system of accounts in respect of the aggregative treatment of distributive trade and transport services and commodity taxes. The main simplification lies in the omission of the classification of the intermediate consumption of industries according to kind of economic activity. It is here, however, that some extension of the structure is required along similar, although not identical, lines as the full SNA if the table is to be of practical value in formulating medium term economic policy in less developed countries.

The following discussion and procedures illustrate more precisely the way in which this basic summary table can be developed to reflect more adequately the broad structure of an economy, the dynamic properties of the system and the inter-relationship between the physical and financial resources available in the context of defined development planning objectives.

3. The Revised SNA and Planning Needs

The revised SNA (i.e. the complete framework of accounts) has been specifically designed within the context of a sophisticated input–output system of the conventional Leontieff form, but it explicitly rcognises that there is no ideal input–output table. This is partly because there are different (and to some extent conflicting) criteria of excellence and, perhaps more importantly, because there are many purposes for which an input–output table may be required and utilised. What is not explicitly recognised, however, is that there are also many situations, or rather countries, where the conventional square matrix is neither necessary nor relevant. In several simple economies (and not necessarily low income ones) such a complex statistical framework does not even satisfactorily fulfill a descriptive, let alone an operational purpose. As the SNA itself points out, in practice, experience suggests that for instrumental purposes the gains to be expected from large and sophisticated tables tend to be comparatively small. A limit is set on the size and format of an I–O table both by the stucture of an economy and by the detail in

which the requisite information is available. Yet, despite this recognition of the practical limitations to the establishment of uniformity, the SNA concludes that, for *most purposes* in most *countries*, a table of medium size (with around 50 branches) based on a set of rectangular I–O tables would be a good prescription for functional purposes and for the implementation of economic development policy.

But the principal purpose of making observations and producing accurate descriptions is to draw meaningful inferences about the economy as the basis for policy formulation. The consolidated "Supply–Disposition" table facilitates this by providing a basis for the practical extension of a planning system which incorporates, in a quantitative form, social as well as economic issues.

The main advantages of the extended "Supply–Disposition" table which, in effect, is little different from a consolidated version of the original Seers model, is its ability to provide, in a simple summary form, a singular practical expression of the combined implications of various alternative assumptions about future economic behavior. The simplicity of both the concept of the model and the arithmetic calculations required for projection purposes endows the table with much day-to-day practical usefulness. It is also an important tool of analysis for longer term policy determination. It enables development planners to comprehend more fully the possible macroeconomic consequences of various alternative policy decisions by permitting them to examine how the ex-post equilibrium position is affected by changes in either side of the supply-demand equation.

4. The Extended Supply–Disposition Model

4.1. *General Characteristics*

The modified input–output table proposed for open developing countries represents a refinement of both the UN SNA Supply–Disposition mode and the original Seers framework. Although it is both a partly consolidated and a partly extended version of a conventional input–output table, it remains consistent with the revised SNA. It contains less columns for the basic, or intermediate, inputs but more columns for the different macro-economic components of demand and supply. This is partly because of lack of data; partly because there is little need for the detailed identification in the input columns of those industries with insignificant domestic "linkages"; partly because, in low income countries (which, characteristically, still tend to depend primarily on one or two major export industries) there are only comparatively few industries with important forward linkages; and partly because there is a wide range of imported goods. The table also incorporates a separate transfers and appropriation sector which facilitates the identification of strategic policy variables, including direct and indirect taxes, incomes payable at home and abroad, imports of industrial and final goods, domestic and foreign income generated, etc. The model possess the combination of a stuctural description of the economy and the means of calculating dynamic coefficients. It also links the physical and financial resource endowments and requirements

via the transfers and income and spending sections. Total supply is in *ex-post* equilibrium with intermediate sales to other industries (confined to domestic supply), exports, current consumption by private persons and the government, fixed capital formation, and the value of physical changes in inventories (provided gross operating profits and stocks are valued free of stock appreciation).

The matrix is primarily intended to serve as a summary description of the economy and the basis for economic projections but it is also a means of obtaining greater internal statistical consistency in national accounts work. The form provides a particularly convenient framework for projections in relation to economic planning because it helps to ensure consistency between the various output and demand targets proposed in any development plan plus the balance between the physical and financial resources available. The table also enables planners to make the important distinction between foreign operations and domestic enterprise in the value added section. Its flexibility allows the "different" industries (as defined according to the UN ISIC) which form a vertically integrated industrial process (e.g. sugar growing and milling) to be treated more meaningfully as a single aggregated sector rather than being incorporated into comparatively less useful general industry groupings.

4.2. *Structural Features*

The table divides horizontally into two inter-related (but quite distinct) halves; the top half represents the producing sectors and the lower half the income and spending (or appropriation) sectors. Each of these two halves, in turn, divides vertically into two separate components; supply to the left and demand to the right. In terms of the traditional input–output table, the upper left of the table represents the supply quadrant; the upper right is the demand quadrant; the lower left forms the income and appropriation quadrant; and the lower right constitutes the expenditure quadrant. The basic quadrant form has been somewhat modified, however, by the insertion of the transfers section (first introduced by Esaieson in the 1964 Zambian table) and the consolidation of the inter-industry (input) section of the table.

Across the top of the table, the inputs and values added that go to make up the domestic output are shown by producing an income generating sectors respectively. The total supply of goods and services is valued at market (purchasers') prices and is classified by domestic production, imports and indirect tax components. The total demand (or rather net disposable income) which completes the equality is grouped by use and users. In each of the industry rows both supply and demand is identified.

4.2.1. Supply

(i) *General framework.* The basic inputs of each industry, i.e. the goods and services purchased either from domestic industries or from overseas sources for direct use in the productive process by firms, are operated upon by the various factors of production; land, labour (including enterprise) and capital. These

operations create the value added by industry; or, in aggregate, gross domestic product identified according to the nature of the rewards paid to the different factors of production in various industrial uses. Additional goods brought into the economy to be consumed directly without undergoing any further processing internally are accounted for in the section labelled "composition of supply".

(ii) *Basic inputs.* Basic inputs divide into imports of intermediate goods and locally produced inputs of goods and services. The domestic basic inputs usually include repairs and maintenance, transport and distribution margins on all intermediate inputs and fuel and power. They primarily comprise non-traded goods. Appropriate indirect tax and duty margins are also added.

(iii) *Value added.* The value added section gives conventional GDP figures broken down by producing sector on the one hand and factor income on the other. This part of the table distinguishes employment income which can be identified by race, skill or some other meaningful economic category; or, if suitable data exists, by social category or geographic region. Income from unincorporated enterprises, rents, royalties paid, the operating surpluses of government enterprises, the gross operating profits of companies (before deducting allowances for depreciation, direct taxes or stock appreciation) and other forms of income can be similarly classified by social or economic status. Company profits can be further subdivided into foreign and domestically owned operations if required. The rural household sector, the predominantly subsistence sector of the economy, is normally shown separately. It is usually attributed to the agricultural, forestry and fishing industries although this clearly ignores some important theoretical and conceptual problems relating to the nature of rural household activities. The basis of valuation for this sector may also be at variance with other parts of the table.

(iv) *Composition of supply.* The "composition of supply" comprises: (1) the gross output of domestic industries in the economy, plus, (2) final goods and services brought in from abroad, plus, (3) local transport costs and distribution margins on final products. This total is valued at market prices so as to bring out the effects and incidence of local indirect taxes, such as customs and sales, and to ensure the appropriate balance with demand. The transfers section which follows clearly has no role to play in the producing sectors part of the table; however, information on direct tax paid by each sector (both employment income and enterprise income) is sometimes readily available and it would be useful to record such data in the appropriate column or, to avoid any possible confusion, in a separate "satellite" column external to the main table. This information would be of some value in assessing the impact of fiscal policies on specific industries.

4.2.2. Demand

(i) *General.* The composition of the demand section of the table shows the disposition of the output of the economy. Part of the output of the economy is sold to producing sectors for further processing and these intermediate sales are recorded separately but in aggregate by each industry. Another part of the output of the economy is sold abroad; either as exports of local produce or as re-exports

of final goods previously imported—or, in some cases, as the purchases of goods and services by foreign tourists.

(ii) *Consumption.* The consumption of goods and services is normally identified according to personal consumpton by private individuals and non-profit-making concerns and by the expenditures incurred by government in producing the goods and services which it provides directly and indirectly to the public. This expenditure is classified according to each producing industry.

(iii) *Gross fixed capital formation.* The "composition of demand" also includes the value of the output (i.e. sales) of capital goods by industry of origin. These investment goods purchases which are classified according to *producing industry* are distinguished between the private and public sector.

(iv) *Stocks.* Some of the output of the economy may not be entirely utilised within the year but stored for future use or consumption; conversely, stocks accumulated in previous years may be run-down to meet an increase in demand during the year in question. Such changes, including the value of work in progress, are recorded in the stock change column as the value at average current prices of the physical changes in stocks in different industries.

(v) *Other.* Further columns, not fundamental to the table, might be added showing, for example, the gross fixed capital formation undertaken by each productive sector (i.e. the capital acquired according to *purchasing industry*) distinguishing between building and works and other forms of capital expenditure much of which will be on imported equipment and machinery.

4.2.3. Income and Appropriation (including Transfers)

The income and spending section of the table describes what funds are made available to the main sectors of the economy and the uses to which these funds are put. Like the producing sectors part of the table it reads from left to right:

$$\text{value added} + \text{net transfers} = \text{net disposable income}$$

$$= \text{composition of demand (or nature of appropriation).}$$

Income generated by productive activities is detailed in the value added section. To this is added (or subtracted as the case may be) various direct taxes, interest, dividend or profit payments and other forms of inter-personal transfer. The sum of these two sections is the net disposable income of the sector in question. This will represent the amount available that can be spent either on the current purchase of goods and services or on fixed capital formation within the sector or on increasing stocks. Alternatively, disposable income can be increased by reducing previously accumulated stocks. Income not spent in one of these ways may be lent or used to repay previous debts; similarly, any expenditure in excess of net disposable income must be met from borrowing or by receipts of capital repayments.

4.2.4. Other Features

This form of input–output table provides information indispensable for the purposes of economic planning and control. In particular, in one general table, data

is presented about gross domestic product (according to industry of origin and factor income), the balance of payments on current account (including the balance of merchandise and non-merchandise trade which, in principle, it is possible to identify separately according to the industries classified in the rows), transfers, capital account changes, government revenue from taxation, central and local government current and capital expenditure, and net income payments remitted abroad. In the case of government revenue it is possible to distinguish both direct and indirect taxes. As far as indirect taxes are concerned, a distinction can be made between the relative burden of indirect taxes that falls respectively on intermediate and final goods and services and, in addition, it is possible to identify the incidence of such taxes on different industries.

4.3. *The Use of the Table*

4.3.1. Macro-Economic Policy and Projections

When formulating the broad lines of medium term economic policy, alternative projections can be prepared on the basis of the extended Supply–Disposition tables. In the first instance, such projections would have to adopt the normal input–output analysis assumptions relating to fixed technical coefficients of production and output proportions, price change, elasticities, indivisibilities, technical change, industry–product classification, product mix, etc. For more meaningful projections many of these assumptions would then have to be relaxed. The model additionally needs good supplementary data on industry–sector productivity trends, price and income elasticities, incremental capital–output ratios and the structure of capital, to enable more precise judgments to be made.

The projections are usually made initially with unchanged wages and prices. At this stage it is normally assumed that although there may be an increase in labour productivity there will be no change in the ratio of total physical inputs to gross output, i.e. it is assumed that the technical coefficients of production and the structure of basic inputs will remain roughly the same over the projection period. Such assumptions are far more exposed to criticism in less developed countries. In advanced economies, by contrast, in the short run, there may well be comparatively fixed technical coefficients of production for the purposes of commodity by commodity analysis, and where commodity outputs have been transformed into industry outputs. In addition, where the ISIC classification is on an "enterprise" industrial rather than "establishment" commodity basis, there is bound to be some degree of overlap of production (commodity) boundaries and a problem of relating physical inputs to appropriate industrial outputs. The justification of fixed input–output coefficients depends on the degree of error that planners are prepared to tolerate in estimating their development requirements. Fortunately, one of the most important advantages of the modified system is that the manual calculations required by the table also allow some variability in factor proportions so that personal discretion and judgement based on more detailed or specific knowledge and experience can play a significant role in extrapolating projections. The system can also allow for changes through time in other coeffi-

cients and parameters. This problem must be solved if the model is to have a real operational usefulness in producing projection estimates and if it is not to be employed only in analysing any given structure of an economy at a particular period of time (as occurs when the table has been prepared for one year only) or in simply describing an economy as it has developed historically. This flexibility in the Supply–Disposition model is clearly one of its greatest advantages. For a macro-economic projection exercise not to be academic it must take account of the actual industrial opportunities and limitations that exist and be useful in bringing out the implications of a policy designed to establish, for example, a particular level of employment.

If the first set of projections are realistic and reasonable from an economic viewpoint then the next stage is to introduce wage and price changes and examine their effects on the projections. Because of the open nature of developing countries, external prices are usually pre-eminent in influencing official policy. Clear assumptions and realistic projections have therefore to be made about export prices, as well as wages in the export sector, because these will tend to determine the magnitude of government savings. Since no exact precision can be attached to the technical coefficients, this permits a certain amount of latitude in introducing successive corrections and on-going adjustments to the system, e.g. to allow for changing elasticities.

5. Conceptual Problems, Practical Limitations and Data Difficulties

5.1. *The Limited Capacity to Deal with Distributive Issues and Employment Problems*

At the national level, planners are initially interested in the macro-economic problems of how changes in income, internal demand, exports, imports, etc., will affect economic growth and the stucture of the economy. The model performs this function very satisfactorily and in its extended form it also possesses a limited capacity to deal with regional and distributive issues.[2] Furthermore, the table is useful in dealing with some sectoral problems. For example, it can be used in trying to assess how changes in the agricultural sector, other things being equal, will affect the balance of payments. The table could show what elements of value added and demand are attributable to specific ethnic groups or economic regions. It could also separately identify, on the one hand, the contribution of the foreign enterprise sector and, on the other, its demands on the economy.

5.2. *Specific Conceptual Issues*

There are a number of more specific details and basic conceptual problems that must be considered by each user when compiling a particular format of the table. The question as to whether own suppliers of utility services and energy, e.g.

[2]A schematic framework demonstrating these relationships may be obtained from the author.

electricity, water, sanitation, etc., should be identified in the different industries normally providing these services or with the gross output of their respective industries is one case in point. There are also the usual imputation problems relating to the income of owner-occupied housing and subsistence output and how these should be incorporated into the table. The model additionally raises a problem as to how rents paid and rents received should be defined and identified in the system. But these problems are not unique to any specific type of country and are really more concerned with practical questions of data presentation and interpretation rather than with remedying any fundamental defect in the table. Their method of incorporation into the framework depends mainly on the structure of the economy and the policy issues which are considered to be important.

5.3. *Practical Problems and Data Difficulties*

It should perhaps be stressed that the development of an extended Supply–Disposition table requires a number of indirect methods of data estimation which may necessitate the use of incomplete or not entirely relevant information of varying degrees of reliability. The incorporation of such data into the table does not vitiate its effectiveness but it does affect the degree of confidence that can be placed in the projection estimates.

This problem particularly applies in the following instances:

(1) The estimation of financial transfer flows between sectors and within sectors (e.g. because of transfer prices) as well as into and out of the economy. This particularly applies to the activities of the foreign enterprise sector and the treatment of "grey" areas like head office and administration charges.

(2) The estimation of import use:

- (a) by domestic producing sectors (purchases by local industries);
- (b) by economic category (broad end-use classification);
- (c) by the different industries which would have produced them had they been generated locally (in the case of "final" goods).

(3) The allocation of import dues as between input imports and final imports (certain imports can be regarded either as basic inputs or as final goods).

(4) The estimation of income and expenditure elasticity of demand and cross-elasticities for projection purposes.

(5) It is necessary to have a breakdown by industry and final user of electricity and water consumption and any other intermediate industry outputs which are identified in the table, and frequently it is difficult to distinguish these items by user and service.

(6) The distinction between transport costs and distribution margins is usually very blurred—in many instances the information by industries has to be estimated as a residual and only a rough split can be made between the two items. Furthermore, in many low income countries, the two functions, and that of storage, are performed by the same organization. An additional complication arises from the need to separate these margins as between basic inputs and final goods offered for sale.

(7) Unincorporated enterprise (including small farms and the "informal sector") incomes and expenditure—intermediate and final consumption.

(8) Estimates of incremental capital–output ratios and the structure of capital by industry are extremely difficult to obtain and may be totally inappropriate. Virtually no developing country has undertaken any comprehensive capital stock base study and very few have good fixed capital formation figures by industrial sector (one of the problems of using commodity flow analysis).

As has been mentioned earlier, when it comes to making more sophisticated and refined projections it will be necessary to have relevant and comprehensive data relating to changes in productivity, prices and wages. Even if wage rates remain unchanged, however, it is not possible to assume either constant productivity growth or stable average earnings because the localisation of expatriate posts (particularly of lower skilled jobs) raises the level of both local and expatriate average wages. There may also be very little accurate data about trends in productivity per worker. Furthermore, productivity trends are likely to be considerably influenced by such factors as the degree of effective tariff protection that exists in particular industries and the availability of excess capacity. In collecting data for the table, planners must also take into account the known (or expected) intra-industry changes which may affect factor input proportions, e.g. in making projections the planners must take into account the additional inputs of domestically produced goods which may be necessary due to the changing composition of output. It may be necessary, for example, to take into account increased inputs of oil or electricity resulting from changes in the method or composition of production. In the case of Zambia, for example, it was necessary to take into account the increased inputs of electricity that were required resulting from the structural change in production from blister to electrolytic copper. In the agricultural sector, because of fluctuating prices and output, the problem arises as to whether inputs should be treated as a function of the monetary component of agricultural production.

Given adequate data, gross output targets should initially be set to what is physically plausible in the different domestic industries. In many cases, the price and quantity of output of the main primary exports will be determined by external factors and constraints; and where there are no limitations, actual sales tend to become a function of output. But, in some cases, output will be fixed by quota and in others the international price may have a depressing effect on production.

None of these problems, however, is peculiar to this particular table. They are common to the economies concerned and therefore to all more detailed economic-statistical frameworks of this nature. The data problems also apply in general to low income countries, but the model does permit these issues to be identified and their impact assessed. In other words, it is possible to conduct a form of sensitivity analysis to ascertain the extent to which estimates are affected by the insertion of different data of varying degrees of reliability and how they react to alternative assumptions incorporated into the model.

5.4. *The Main Advantages*

The value of making projections using the model lies primarily in bringing to the notice of the policy-making authorities the internal and external dilemmas

with which they will probably be confronted as growth and development proceed. It throws into sharp operational focus the relevance of the technical exercises by placing the projections in the wider context of how the total available resources are allocated and distributed within the country. It thus emphasises the need to relate projections to a particular economic situation and time horizon, while recognising the existence of broader distributional and social issues in its potentially more sophisticated formulations.

6. The Model Applied (Zambia, Fiji and Oman)

The Report of the 1964 UN/FAO/ECA Economic Mission to Zambia (the 'Seers' Mission) incorporated a modified input–output table based on approximate 1961 data. (More comprehensive information was not available until the first independent 1954–64 national accounts report published in 1965). On the basis of this framework some general projection estimates for 1966 were calculated. The broad outline of the table followed the same basic pattern first proposed by Seers (1963) for adoption by primary commodity producing countries in the Caribbean as a suitable basis for formulating their development planning policies. In the year following the publication of the Mission's recommendations, the Central Statistics Office in Rhodesia prepared, for its own internal use, a more sophisticated and considerably modified version of the table which gave much greater detail relating to import use. At the same time, a developed Supply–Disposition table (which extended the principal elements of value added, supply, etc. along more conventional lines) was officially prepared for Zambia using 1964 as its base reference year. This table, in introducing a transfers section and other refinements relating to value added and income and appropriation, explicitly took cogniscence of the need to incorporate, in a simple way, certain social and distributional factors in the formulation of a development model. For example, employment income was divided between African (low income) and Non-African (high income) recipients. Similarly, because of the very different nature of the economic activities (especially farming) pursued by the two groups, the same distinction was made in the sector relating to income from unincorporated enterprises. The introduction of the income and spending/ transfers section of the table facilitated the identification of factor income flows (particularly interest and dividends) from various sectors to the rest of the world. It also enabled planners to estimate the amount of retained earnings appropriated for possible gross fixed capital formation expenditure in important sectors of the economy. Unfortunately, the continuity was not retained the following year because the 1965 table was compiled on the basis of a conventional input–output framework. Within the planning office itself, however the more sophisticated and detailed Leontief matrix was condensed and extended into the same form as the 1964 framework because of the considerable use that could be made of it in the evaluation of practical operational planning problems and potential policies.

Similar tables, but excluding the all important transfers section (primarily because of lack of data) were regularly compiled for Fiji from 1966. But in the

1970s, a switch was made to the more customary macro-economic input–output model. The 1972 model, up-dated to 1975 prices and with its coefficients adapted to take account of relative income, price, etc., shifts was used as a basis for the latest (1975 benchmark) development plan. The main difference in the Fiji model compared with the earlier Zambian model was the consolidation of important vertically integrated industries (in particular, sugar), the separate identification of tourist consumption from total private consumption and the addition of columns, peripheral to the main table, relating to the acquisition of capital assets and direct tax payments.

The table for Oman (so far unpublished) relates to 1974. The framework was used as a basis for general information collection and compilation in connection with the production of a detailed and consistent set of national accounts. In the case of Oman, the flexible basic structure was modified to identify in the value added section, the employment incomes of Omani and expatriate workers and also the gross profits accruing to Omani, foreign and mixed enterprises. It was not thought necessary to make the same distinction in the case of unincorporated enterprise incomes. The possibility of producing a regional distincion between the coastal regions and the interior (respectively, the former regions of "Muscat" and "Oman") or Dhofar was considered but rejected on the grounds of insufficient data availability at present, although such a distinction would be interesting from an official policy viewpoint. But economic transactions in the rural household sector are separately identified according to their industrial nature since these extend beyond the normal scope of agricultural activities.[3]

7. Summary: Resources, Economic Relevance and Needs

The statistical offices in many low income countries are small and they usually have to rely on the expertise of only a few professional and technical statisticians whose practical experience in such a wide range of problems is sometimes relatively limited. In most instances these offices are not given any opportunity to see beyond the immediate data needs and policy concerns of government and, on occasion, they may not know for what real purpose the statistics are to be collected and used. Ad hoc policy and planning tends to breed unco-ordinated *ad hoc* statistical exercises and efforts. In this respect at least, it is highly desirable to have a formally defined stable framework of statistical data collection (such as is provided by the SNA or more specifically, a Supply–Disposition statement) to which they can adhere because this does permit the establishment of certain important statistical base reference points. Even then, however, there are both conceptual and practical problems in maintaining appropriate development planning models—and the data frameworks which support them—because these need to be changed sometimes as an economy becomes more developed and diversified.

In practice, statistical improvements occur because of the development of concepts and research methods and these lead to the acquisition of more and better, i.e. more relevant, data. The reformulation of existing tables and statistical series and the introduction of new methods of electronic data processing

[3]A similar table now also exists for Bermuda for 1975,

also facilitate improvements in timeliness and reliability. Developments and improvements in the national accounts should be viewed in their proper perspective. It is perhaps more important to develop the SNA within the context of the overall statistical framework demanded by the specific requirements of development planning in a particular country than it is to increase the level of sophistication of merely individual aspects of this wider system.

APPENDIX I

TABLE 1

SUPPLY AND DISPOSITION OF GOODS AND SERVICES

Classification of Goods and Services		Supply of Goods and Services					Disposition (Purchasers' Values)							
			Imported											
		Domestically Produced (Producers' Values)	C.i.f. Values	Import Duties	Transport and Distribution Margins (Producers' Values)	Total Supply and Disposition (Purchasers' Values)	Intermediate Consumption, Industries	Intermediate Consumption, Producers of Government Services	Intermediate Consumption Producers of private Non-profit Services to Households	Household final Consumption Expenditure in the Domestic Market or Private Final Consumption Expenditure	Government Final Consumption Expenditure	Increase in Stocks	Fixed Capital Formation	Exports (*f.o.b*)
	Flow	1.1.0*	1.1.10	1.3.4.1	1.1.0*	1.1 or 1.2	1.2.1	1.2.2	1.2.3	2.2.30	2.2.20	4.2.5	4.2.6	1.2.10
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
(a) Commodities														
Characteristic commodities of the categories of the kind of activity of industries to be shown in Standard Table 2[1]														
(b) Other Goods and Services[2]														
1. Produced by Government Services			xxx	xxx	xxx		xxx	xxx	xxx			xxx	xxx	xxx
2. Produced by Private Non-profit Services			xxx	xxx	xxx		xxx		xxx		xxx	xxx	xxx	xxx
3. Domestic Services of Households			xxx	xxx	xxx		xxx	xxx	xxx		xxx	xxx	xxx	xxx
4. Direct Purchases Abroad by Government Services on Current Account		xxx		xxx	xxx		xxx		xxx	xxx	xxx	xxx	xxx	xxx
5. Direct Purchases Abroad by Resident Households, *less* Direct Purchases by Non-resident Households in the Domestic Market		xxx		xxx	xxx		xxx	xxx	xxx		xxx	xxx	xxx	
Total														

[1] Any commodities produced by government services or private non-profit services to households included among the characteristic products of a kind of activity of industries should be separately identified.
[2] Other goods and services at purchasers' values.
*In part.

APPENDIX II

INPUT–OUTPUT TABLE FOR ZAMBIA 1964

(£Z million)

ISIC No.	*Producing Sectors*		Basic Inputs: Imports: Goods	Imports: Services	Domestic: Maintenance of Buildings	Domestic: Electricity and Water	Domestic: Distribution	Domestic: Transport and Comm.	Other Domestic: Goods	Other Domestic: Services	Total Basic Inputs	Indirect Taxes Basic Input	Value Added: Employment Income: African	Employment Income: Non-African	Income from Uninc. Business: African	Income from Uninc. Business: Non-African	Subsistence Sector	Gross Operating Profits: Government Enterprise	Gross Operating Profits: Public Corporations	Gross Operating Profits: Companies	Total Value Added
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
0	Agriculture, etc.	1	1.6	—	—	—	0.5	0.2	0.9	0.1	3.3	0.1	2.4	0.2	3.9	2.5	17.5	—	—	0.1	26.6
01	maize	2																			
01	livestock	3																			
01	tobacco	4																			
01	other agriculture	5																			
02	forestry	6																			
03–04	fishing and hunting	7																			
0	subsistence	8																			
1	Mining and Quarrying	9	14.6	3.9	1.3	7.0	0.7	2.8	3.2	1.7	35.2	0.4	15.5	21.3	—	—	—	—	—	82.0	118.8
122X	copper	10																			
12	other mining	11																			
14, 19	quarrying	12																			
2, 3	Manufacturing	13	8.0	0.8	—	0.4	1.1	0.9	8.1	0.9	20.2	0.5	3.2	4.0	0.9	0.3	—	0.2	0.1	4.4	13.1
20	food	14	2.8	0.1	—	0.1	0.6	0.3	5.4	0.1	9.4	0.1	0.7	0.6	0.2	0.1	—	—	0.1	0.4	2.1
21, 22	beverages and tobacco	15	0.9	0.3	—	0.1	0.1	0.2	1.5	0.2	3.3	0.1	0.4	0.4	—	—	—	0.2	—	1.8	2.8
23, 24	textiles and clothing	16	0.8	—	—	—	—	—	0.1	—	0.9	0.1	0.2	0.2	0.1	—	—	—	—	0.1	0.6
25, 26	wood and furniture	17	0.3	0.1	—	—	0.1	0.1	0.6	0.1	1.3	—	0.4	0.3	0.1	—	—	—	—	0.2	1.0
27, 28	paper and printing	18	0.4	—	—	—	—	0.1	—	0.1	0.6	—	0.2	0.4	0.05	—	—	—	—	0.05	0.7
30, 31	rubber and chemicals	19	0.6	0.1	—	—	—	—	—	0.1	0.8	—	0.1	0.1	0.05	0.05	—	—	—	0.4	0.7
32	petroleum	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
33	non-metallic minerals	21	0.4	0.1	—	0.1	0.1	0.1	0.4	0.1	1.3	0.1	0.4	0.3	0.2	0.05	—	—	—	0.85	1.8
34–38	metal and machinery	22	1.8	0.1	—	0.1	0.2	0.1	0.1	0.2	2.6	0.1	0.8	1.6	0.15	0.1	—	—	—	0.55	3.2
29, 39	other manufacturing	23	—	—	—	—	—	—	—	—	—	—	—	0.1	0.05	—	—	—	—	0.05	0.2

4	Construction	24	6.6	0.7	—	—	2.2	0.7	4.5	0.4	15.1	0.3	4.5	3.1	1.1	0.3	—	—	—	1.2	10.2
5	Electricity and Water	25	4.8	0.1	0.2	—	0.1	0.1	1.7	0.2	7.2	—	0.3	0.7	—	—	—	0.7	0.6	1.1	3.4
61	Distribution	26	1.15	1.2	—	1.15	—	5.4	0.2	0.5	8.6	0.2	2.7	5.7	2.2	2.5	—	0.4	0.2	4.7	18.4
62, 63	Finance and Insurance	27	—	0.4	—	—	—	—	—	0.1	0.5	—	0.1	1.4	—	—	—	—	—	−1.2	0.3
64	Real Estate	28	—	—	0.2	0.1	—	—	—	—	0.3	0.2	—	—	—	—	—	2.4	—	1.4	3.8
64	House Ownership	29	—	—	0.1	—	—	—	—	—	0.1	—	—	—	—	1.5	—	—	—	—	1.5
7	Transport and Communication	30	1.25	3.9	1.5	0.05	0.6	0.3	1.1	0.1	8.8	0.3	2.1	4.0	0.2	0.3	—	0.3	2.5	0.9	10.3
81	Government Services	31	—	—	—	—	—	—	—	—	—	—	9.7	8.8	—	—	—	—	—	—	18.5
841	Domestic Services	32	—	—	—	—	—	—	—	—	—	—	3.5	—	—	—	—	—	—	—	3.5
—	Rural Household Services	33	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.3	—	—	—	4.3
82–84	Other Services	34	0.1	0.3	—	0.1	0.1	—	—	0.1	0.7	—	1.8	3.3	0.2	1.4	—	—	—	0.9	7.6
	Unallocated indirect taxes	35	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Total Producing/Income Sectors	36	38.1	11.3	3.3	7.8	5.3	10.4	19.7	4.1	100.0	2.0	45.8	52.5	8.5	8.8	2.8	4.0	3.4	95.5	240.3
	Intermediate Products	37	—	—	3.3	7.8	5.3	10.4	19.7	4.1	50. 6	—	—	—	—	—	—	—	—	—	—
	Income and Spending Sectors:																				
	Government	38										2.0						2.4			2.4
	Government Enterprise	39																1.6			1.6
	Public Corporation	40																	3.4		3.4
	Companies:																				
	mining	41																			
	manufacturing	42																		82.0	82.0
	finance and insurance	43																		4.6	4.6
	other industries	44																		−1.2	−1.2
	Households	45																		10.1	10.1
	Rest of World	46	38.1	11.3							49.4		45.8	52.5	8.5	8.8	21.8				137.4

APPENDIX II—*continued*

		Composition of Supply						Transfers							Composition of Demand									
																	Consumption		G.F.C.F.					
		Gross Output	Imports of Consumers' Goods	Imports of Capital Goods	Import Duties	Other indirect Taxes	Distribution Margins	Interest	Dividends and Profit Payments	Mineral Royalties	Direct Tax	Other Transfers	Total Transfers	Total Supply/ Demand Net Disposable Income	Sale to other Producing Sectors	Exports	Private Consumption	Government Consumption	Land Improvement/ Mine Development	Building and Works	Plant and Machinery	Change in Stocks	Net Lending (+) or Net Borrowing (−)	Total Saving and Depreciation
ISIC No.	*Producing Sectors*	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
0	Agriculture, etc. 1	30.0	1.0	—	—	−0.3	2.1							32.8	5.3	3.5	22.5	0.5	0.5	—	—	0.5		
01	maize 2	3.7	—	—	—	−0.2	—							3.5	3.0	0.1	0.1	—	—	—	—	0.3		
01	livestock 3	2.9	—	—	—	−0.1	0.5							3.3	1.5	—	1.7	0.1	—	—	—	—		
01	tobacco 4	3.2	—	—	—	—	—							3.2	0.4	2.8	—	—	—	—	—	—		
01	other agriculture 5	1.6	0.7	—	—	—	0.8							3.1	—	0.2	2.1	0.3	0.5	—	—	—		
02	forestry 6	0.5	—	—	—	—	0.1							0.6	0.4	—	0.2	—	—	—	—	—		
03–04	fishing and hunting 7	0.6	0.4	—	—	—	0.7							1.6	—	0.4	1.1	0.1	—	—	—	—		
0	subsistence 8	17.5	—	—	—	—	—							17.6	—	—	17.3	—	—	—	—	0.2		
1	Mining and Quarrying 9	154.4	—	—	—	—	—							154.4	1.8	162.1	1.3	—	4.9	—	—	−15.7		
122X	copper 10	147.1	—	—	—	—	—							147.1	1.0	155.7	1.2	—	4.9	—	—	−15.7		
12	other mining 11	7.0	—	—	—	—	—							7.0	0.6	6.3	0.1	—	—	—	—	—		
14, 19	quarrying 12	0.3	—	—	—	—	—							0.3	0.2	0.1	—	—	—	—	—	—		
2, 3	Manufacturing 13	33.8	31.9	11.8	4.8	2.1	19.1							103.5	12.6	1.7	66.5	6.7	—	—	13.6	2.4		
20	food 14	11.6	4.0	—	0.2	—	3.6							19.4	2.1	0.5	15.1	1.6	—	—	—	0.1		
21, 22	beverages and tobacco 15	6.2	1.5	—	1.1	2.1	2.6							13.6	0.1	0.1	13.2	—	—	—	—	0.2		
23, 24	textiles and clothing 16	1.6	10.8	—	1.3	—	4.6							18.3	—	0.2	16.7	1.1	—	—	—	0.3		
25, 26	wood and furniture 17	2.3	0.6	—	0.1	—	0.6							3.6	1.2	0.4	1.8	0.1	—	—	0.1	—		
27, 28	paper and printing 18	1.3	0.7	—	0.1	—	0.4							2.5	0.8	—	1.1	0.6	—	—	—	—		
30, 31	rubber and chemicals 19	1.5	3.4	0.1	0.4	—	1.4							6.7	0.8	—	4.6	0.9	—	—	0.1	0.3		
32	petroleum 20	—	1.9	—	0.3	—	1.2							3.4	—	0.1	2.3	0.8	—	—	—	0.2		
33	*non-metallic minerals* 21	3.2	0.2	—	—	—	0.1							3.5	3.1	0.1	0.3	—	—	—	—	—		
34–38	metal and machinery 22	5.9	7.2	11.2	1.1	—	3.7							29.1	4.5	0.2	8.9	1.4	—	—	12.8	1.3		
29, 39	other manufacturing 23	0.2	1.6	0.5	0.2	—	0.9							3.4	—	0.1	2.5	0.2	—	—	0.6	—		

4	Construction	24	25.6	—	—	—	—	—							25.6	3.3	—	—	3.4	—	18.9	—	—		
5	Electricity and Water	25	10.6	—	—	—	—	—							10.6	7.8	0.4	1.7	0.7	—	—	—	—		
61	Distribution	26	27.2	—	—	—	—	—							27.2	26.5	—	0.6	0.1	—	—	—	—		
62,63	Finance and Insurance	27	0.8	—	—	—	—	—							0.8	0.3	—	0.5	—	—	—	—	—		
64	Real Estate	28	4.3	—	—	—	—	—							4.3	0.6	—	3.6	0.1	—	—	—	—		
64	House Ownership	29	1.6	—	—	—	0.7	—							2.3	—	—	2.3	—	—	—	—	—		
7	Transport and Communication	30	19.4	3.7	—	—	—	—							23.1	10.4	6.2	5.3	1.2	—	—	—	—		
81	Government Services	31	18.5	—	—	—	—	—							18.5	0.9	—	0.5	16.9	0.2	—	—	—		
841	Domestic Services	32	3.5	—	—	—	—	—							3.5	—	—	3.5	—	—	—	—	—		
—	Rural Household Services	33	4.3	—	—	—	—	—							4.3	—	—	4.3	—	—	—	—	—		
82–84	Other Services	34	8.3	7.4	—	—	—	—							15.7	2.3	—	11.7	1.7	—	—	—	—		
	Unallocated indirect taxes	35	—	—	—	—	0.7	—							0.7	—	—	0.7	—	—	—	—	—		
	Total Producing/Income Sectors	36	342.3	44.0	11.8	4.8	3.2	21.2							427.3	71.8	173.9	125.0	31.3	5.6	18.9	13.6	−12.8		
	Intermediate Products	37	50.6	—	—	—	—	21.2	—	—	—	—	—	—	71.8	71.8	—	—	—	—	—	—	—		
	Income and Spending Sectors:																								
	Government	38	4.4			4.8	3.2		−1.1	0.7	9.4	29.7	0.2	38.9	51.3	—	—	—	31.3	0.2	8.8	0.9	—	10.1	20.0
	Government Enterprise	39	1.6						−0.3	−0.7	—	—	—	−1.0	0.6	—	—	—	—	—	0.5	0.4	—	−0.3	0.6
	Public Corporation	40	3.4						−3.2	3.7	—	—	0.3	0.8	4.2	—	—	—	—	—	2.3	0.1	0.7	1.1	4.2
	Companies:																								
	mining	41	82.0						1.1	−20.6	−24.7	−17.3	−0.1	−61.6	20.4	—	—	—	—	4.9	1.6	7.0	−15.7	22.6	20.4
	manufacturing	42	4.6						−0.1	−0.8	—	−1.3	—	−2.2	2.4	—	—	—	—	—	1.2	1.4	0.9	−1.1	2.4
	finance and insurance	43	−1.2						1.4	1.1	—	−0.5	—	2.0	0.8	—	—	—	—	—	0.2	0.1	—	0.5	0.8
	other industries	44	10.1						−0.8	−0.9	—	−1.4	—	−3.1	7.0	—	—	—	—	0.2	1.1	2.1	1.2	2.4	7.0
	Households	45	137.4						1.1	0.9	—	−1.2	−3.4	−5.6	131.8	—	—	123.1	—	0.3	3.2	1.6	0.1	3.5	8.7
	Rest of World	46	49.4	44.0	11.8				1.9	16.6	15.3	−5.0	3.0	31.8	137.0	—	173.9	1.9	—	—	—	—	—	−38.8	−38.8

APPENDIX III

FIJI IPUT-OUTPUT TABLE 1967 ($F000)

Producing Sectors	ISIC (R) No.		Basic Inputs							Value Added						
					Domestic								Gross Profit			
			Imports, Goods c.i.f. and Services	Import Duties and Other Indirect Taxes on Imports of Inputs	Repairs and Maintenance	Electricity and Water	Other Locally Produced Purchased Inputs	Transport and Distribution of Inputs	Total Basic Inputs	Subsistence	Royalties and Imputed Rent	*Employment Income*	Government Enterprises	Private Enterprises	Income from Unincorporated Enterprises	Total Value Added
			1	2	3	4	5	6	7	8	9	10	11	12	13	14
Subsistence	1119 (pt.), 9900	1	—	—	—	—	—	—	—	16,220	—	—	—	—	—	16,220
Agriculture, Forestry Fishing	1 (except pt. 1119) 3115 (pt.), 3118	2	3,982	331	2,200	20	15,069	3,949	25,551	—	—	9,665	9	5,965	18,240	33,879
Mining and Quarrying	2	3	1,324	154	416	8	48	274	2,224	—	24	1,937	—	398	46	2,405
Manufacturing	3 (except pt. 3115, 3118), 951	4	8,820	1,277	370	445	1,024	2,284	14,220	—	—	3,787	2	2,769	1,542	8,100
Electricity and Water	4101, 4200	5	318	8	149	24	20		519	—	—	534	974	—	73	1,581
Construction	5	6	3,648	672	123	20	8,628	2,732	15,823	—	—	5,881	3	809	2,819	9,512
Distribution	6100, 6200	7	1,007	329	650	50	279	231	2,546	—	—	8,028	—	5,927	5,730	19,685
Transport and Communications	7	8	2,150	896	1,907	10	86	463	5,512	—	—	4,162	1,024	2,581	1,842	9,609
Finance and Insurance	81, 82, 8310, 0000 (part)	9	96	4	64	5	15	11	195	—	—	1,217	450	-450	153	1,370
Ownership of Dwellings	—	10	—	—	1,333	—	—	—	1,333	—	13,333	—	—	—	—	13,333
Private Services	63, 832, 9200 936–948, 952–960	11	2,069	38	273	37	3,505	795	6,717	—	—	2,762	21	996	2,122	5,901
Education	9310	12	210	—	1	23	596	155	985	—	320	4,117	—	—	33	4,470
Health		13	561	60	3	34	904	313	1,875	—	720	1,796	—	—	184	2,700
Central Government Services	9100	14	1,519	—	—	393	146	178	2,236	—	2,160	4,475	—	—	—	6,635
Local Government Services	9110	15	66	—	—	26	119	38	249	—	—	—	—	—	—	125
Unallocated	—	16					4,630	3								
Total		17	25,770	3,769	7,489	1,095	35,050	11,426	84,618	16,220	16,557	48,486	2,483	18,995	32,784	135,525

Producing Sectors	ISIC (R) No.		Composition of Supply								Composition of Demand								Fixed Capital Formation		
			Gross Output	Imports of Consumer Goods and Services	Imports of Capital Goods	Import Duties and Other Indirect Taxes on Imports of Final Goods	Other Indirect Taxes	Subsidies	Transport and Distribution of Final Products	Total Supply = Total Demand	Sales to Producing Sectors	Exports f.o.b.	Re-exports f.o.b.	Tourist Consumption	Private Consumption	Government Consumption = Government Production	Fixed Capital Formation	Changes in Stocks	Direct Taxes	Building and Works	Other
			15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
Substitence	1119 (pt.), 9900	1	16,220	—	—	—	—	—	—	16,220	—	—	—	—	15,720	—	500	—	—	500	—
Agriculture, Forestry and Fishing	1 (except pt. 1119) 3115 (pt.), 3118	2	59,430	1,492	—	54	799	−508	3,482	64,749	23,770	30,324	158	—	11,300	754	—	1,557	1,325	1,837	1,669
Mining and Quarrying	2	3	4,629	—	—	—	85	—	—	4,714	474	3,384	—	—	—	—	767	89	77	409	390
Manufacturing	3 (except pt. 3115, 3118), 951	4	22,320	29,090	5,438	6,085	2,271	−136	14,192	79,260	14,854	1,193	7,587	5,480	36,636	—	11,016	2,494	553	641	764
Electricity and Water	4101, 4200	5	2,100	—	—	—	—	—	—	2,100	1,095	15	—	—	980	—	—	10	18	698	302
Construction	5	6	25,335	—	—	—	10	—	—	25,345	2,496	—	—	—	—	3,237	19,417	195	87	46	368
Distribution	6100, 6200	7	22,231	—	—	—	67	−164	—	22,134	21,000	—	—	—	—	—	—	1,134	1,169	2,712	1,475
Transport and Communications	7	8	15,121	519	—	—	612	—	—	16,252	8,100	2,957	—	820	3,780	598	—	−3	314	1,531	2,541
Finance and Insurance	81, 82, 8310 0000 (part)	9	1,565	—	—	—	5	—	—	1,570	800	—	—	—	180	600	—	−10	389	400	—
Ownership of Dwellings	—	10	14,666	—	—	—	260	—	—	14,926	—	—	—	—	14,926	—	—	—	—	4,293	—
Private Services	63, 832, 9200, 936–948, 952–960	11	12,618	1,420	—	—	6	—	—	14,044	145	—	—	4,900	8,978	—	—	21	202	1,820	1,471
Education	9310	12	5,455	—	—	—	—	—	—	5,455	—	—	—	—	1,353	4,102	—	—	2	1,178	303
Health		13	4,575	—	—	—	—	—	—	4,575	—	—	—	2	958	3,616	—	−1	26	346	92
Central Government Services	9100	14	8,871	—	—	—	—	—	—	8,871	—	—	—	—	—	8,871	—	—	—	1,741	247
Local Government Services	9110	15	374	—	—	—	—	—	—	374	—	—	—	—	—	374	—	—	—	700	300
Unallocated	—	16	4,633				666			5,299											2,916
Total		17	220,143	32,521	5,438	6,139	4,781	−808	17,674	285,888	72,734	37,873	7,745	11,202	94,811	22,152	31,700	2,372	4,162	18,862	12,838

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(This list is representative of both the theoretical formulation and the practical application of the Seers modified input–output framework to particular developing countries. It also reflects views concerning the statistical needs for development planning in low income countries).

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