

## ASPECTS OF THE OFFICIAL NATIONAL INCOMES TABLES OF FIJI\*

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This paper describes and examines three particular features of the official national income tables recently published by the Fiji Government. The need of development planners for a comprehensive set of national accounts incorporating detailed information relating to central government current expenditure, the operations of the private business sector, and the rural household economy has assumed special importance. The uses and limitations to the information contained under these specific headings is discussed and throughout an emphasis is placed on the need for the adoption of consistent and systematic methods of collection and estimation procedures to facilitate planning and decision making. As aids to more detailed interpretation and analysis, the features described are considered to be of general interest to other developing countries.

A new series of national income figures has been published by the Bureau of Statistics of the Fiji Government. The detailed tables forming the comprehensive set of accounts are published in two separate reports dealing respectively with the Central Government Accounts<sup>1</sup> and the National Accounts of Fiji.<sup>2</sup> Both reports incorporate several interesting features which should prove useful to other countries at a similar stage of economic development endeavouring not only to produce national income data on a regular, consistent and systematic basis but also wishing to obtain the best possible use from the published tables. There are three features of the combined accounts which are perhaps worthy of special mention. These are:

(1) The tables appearing in the Central Government accounts showing, in simple matrix form, annual central government current expenditure on goods and services by type of government service provided and the industry of origin of the purchases.

(2) The procedure of data collection and processing adopted to produce aggregate estimates of net output, gross operating profits, interest, dividends, declared depreciation, etc.

(3) The valuation of rural household production for own consumption.

The first of these features, representing both a change and an improvement in data presentation, is designed to aid the detailed interpretation of government accounts and to make the tables more useful and meaningful for economic—particularly government budgeting and financial—analysis.

The second feature is primarily a statistical development intended to improve the estimates compiled for some of the most significant elements of the cash

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<sup>1</sup>“An Economic and Functional Classification of Central Government Accounts for National Income Studies, 1965 to 1969”, Bureau of Statistics, Suva, Fiji.

<sup>2</sup>“The National Accounts of Fiji, 1965 to 1968”, Bureau of Statistics, Suva, Fiji.

sector of the economy. These items, such as gross operating profits, tend to be prone to wider margins of error and under-estimation in a small developing country and changes in these aggregates from one year to the next can, in the absence of any systematic method of data collection, just as easily reflect alterations in the estimation procedure as any real change in the magnitudes involved.

The third feature, although not strictly falling into the same category of development in estimation procedure, raises some of the problems involved in attempting to assess the most appropriate valuation of rural household production for own consumption. It indicates the necessity for some degree of conformity—or at least the provision of a clear explanation—in the methods used to compile estimates of what inevitably tends to be the largest single item (and the one usually most susceptible to error) appearing in the national income tables of developing countries, viz. the predominantly “non-cash” sector income.

These three particular aspects of the official national accounts tables of Fiji will now be considered in more detail.

### 1. THE CENTRAL GOVERNMENT CURRENT EXPENDITURE ON GOODS AND SERVICES

Table 1 is an example of the form of table used to provide a detailed breakdown of Central Government current expenditure on goods and services. It is complementary to the summary current revenue and expenditure tables (the latter showing current expenditure on goods and services; less fees, sales and recoveries; subsidies; interest and transfer payments in that order) and the very similar simple matrix style tables showing Central Government capital formation by the same categories of service rendered and type of asset (e.g. office building, dwellings, transport equipment, etc.) purchased. The tables in question attempt to provide a detailed classification of the current economic and functional expenditure of the Central Government according to the industry of origin of purchases. Their main purpose is to demonstrate the economic inter-relationship of the recurrent expenditure of the Central Government with the rest of the economy and (implicitly against the background of established knowledge of the industrial structure of the economy) the Central Government’s approximate demand for overseas goods and services. It is also possible, on the basis of varying assumptions regarding average-marginal expenditure relationships, to produce estimates of the effect and cost of any expansion (or, indeed, contraction) in the different recurrent expenditure services whether such changes occur because of a switch in emphasis in current expenditure policy or whether they occur directly and indirectly as a result of an increase in the capital development programme. (See Table 1.)

Mainly because of the lack of suitable data and the way the Central Government administers its finances and normally prepares its accounts, these tables tend inevitably to represent somewhat of a mixture between actual purchases of goods and services from specific industry groups and the cost of the provision of certain services generally falling within these industry groups. To take one example, the Public Works Department (annually recurrent) vote of “maintenance of buildings” normally represents the supply of a service, i.e. the

**TABLE 1**  
**AN EXAMPLE OF THE SIMPLE GOVERNMENT CURRENT TRANSACTIONS MATRIX: CENTRAL GOVERNMENT EXPENDITURE ON GOODS AND SERVICES BY TYPE OF SERVICE PROVIDED; 1965; (\$000)**

Service	Industry of Origin of Purchases																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
ISIC (Rev.)	Agriculture	Mining and Quarrying	Food, Drinks, etc.	Textiles, etc.	Furniture, Wood	Paper, Printing	Chemical, Rubber	Petrol, Oil	Metal and Machines	Transport, man, and Repair	Other Manufacturer	Electricity, Gas, Water	Construction	Transport and Communication	Finance, Insurance	Real Estate	Education and Health	Other Services Including Hotels, etc.	Total Goods and Services	Wages and Salaries	Total
	1	2	31	32	33	34	35	353	37	38	36, 39	4	5	7	81-2	831	92-933	63, 9 (n.e.s.)			
1. Government Administration	8	0	18	2	2	22	3	24	4	26	2	175	15	609	23	113	96	246	1,386	2,248	3,634
2. Justice, Police, Defence <sup>a</sup>	11	0	84	64	0	8	0	38	16	28	0	9	76	0	0	0	133	469	1,182	1,651	
3. Roads, Wharves, Airfields <sup>b</sup>	0	37	9	0	60	3	12	13	39	34	0	0	753	25	1	0	0	7	993	451	1,444
4. Public Health, Sanitation	0	0	19	2	0	0	2	3	1	3	1	25	0	4	0	0	4	1	64	178	242
5. Other Community Services	9	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	8	27	50	28	78
6. Education	1	0	83	24	8	62	8	14	14	14	0	4	12	51	0	6	63	10	376	2,810	3,186
7. Medical Health	0	0	150	6	2	5	96	23	81	23	10	12	4	39	0	0	7	13	470	1,219	1,689
8. Special Welfare Services	0	0	33	4	2	2	16	2	8	2	0	13	9	5	0	1	0	4	101	146	247
9. Agriculture, Forestry, Fishing	165	0	6	1	0	2	2	33	3	35	0	2	19	29	0	0	29	68	393	459	852
10. Transport, Communications	0	0	20	9	0	1	0	55	5	71	0	0	17	94	0	0	0	35	307	83	390
11. Housing, Public Works, n.e.s. <sup>c</sup>	10	20	0	0	170	29	142	2	102	2	0	20	560	10	0	0	0	6	1,074	268	1,342
12. Other Services, n.e.s.	0	0	0	0	0	0	0	1	1	3	0	0	0	3	0	0	0	1	11	84	95
<b>Total</b>	<b>204</b>	<b>57</b>	<b>422</b>	<b>112</b>	<b>244</b>	<b>140</b>	<b>281</b>	<b>208</b>	<b>274</b>	<b>241</b>	<b>13</b>	<b>251</b>	<b>1,400</b>	<b>945</b>	<b>24</b>	<b>120</b>	<b>207</b>	<b>551</b>	<b>5,694</b>	<b>9,156</b>	<b>14,850</b>

*Notes:*

<sup>a</sup>All Military Defence expenditure on goods and services other than armed forces pay has been included under "Other Services" (Column 18) in this table.

<sup>b</sup>Only Labourers' wages and plant hire are included under "Construction". Other costs of construction maintenance, e.g. sand and stone are included under their appropriate headings. Wages = 500 (estimate).

<sup>c</sup>Only the estimated payments to labourers engaged on building maintenance are included under construction. Other maintenance costs such as stone, timber, paint, paper, etc. are classified to their separate industries. Wages = 478 (estimate).

ISIC: U.N. International Standard Industrial Classification of all Economic Activities, M(4) Rev. 2.

The Administrative divisions of Education, Health, Works Departments, etc., have been included under "Administration".

A detailed description and definitions of the above classifications are included in the technical appendix to the Report: "An Economic and Functional Classification of Central Government Accounts for National Income Studies, 1965 to 1969," Bureau of Statistics, Suva, Fiji.

total cost of providing such a service, and to facilitate a more meaningful interpretation of the tables this (and other) fairly substantial categories of government expenditure must be broken down according to costs, i.e. according to those purchases which must necessarily be incurred in order to provide this service. Thus the sum expended on the "maintenance of buildings" can be broken down into the payment of wages, plant hire and purchases of materials (e.g. wood, glass, paint, etc., according to industry of origin). In the case of Fiji, the elements of wages and plant hire in this particular category are assigned to the construction industry, i.e. purchases of construction services, some of which are provided from within the government structure, and some from external machinery hire firms and contractors. Clearly, there is a limit to which more detailed breakdowns become unprofitable, confusing or even meaningless. Generally speaking, such more detailed calculations have been attempted by the Bureau of Statistics in Fiji only for significant items of expenditure (usually of FIJI \$20,000 or more) which, in particular, represent the provision of a service as opposed to the purchase of a more specific category of goods and services. Other normal but important items of government expenditure tend to lend themselves quite easily to a fairly straightforward classification along U.N., ISIC lines, e.g. telephones (transport and communications), travel and subsistence (arbitrarily divided between petrol, maintenance and repair of vehicles, transport and communications and other services, i.e. hotels, etc.) and purchases of stationery, books, etc. (paper and printing). Certain other categories of expenditure cause more difficulty. In theory, the different contributions made, for example, by the various government departments on behalf of their unestablished and non-permanent employees to the national pension scheme (the Fiji National Provident Fund) should ideally be assigned to the category wages and salaries according to the estimated numbers of unestablished workers employed in each type of service and the actual wages being paid to them because the pension contribution by the employer is a fixed percentage (at present 5 per cent) of the basic wage. In practice, the Bureau of Statistics found it was not possible to produce these calculations without a great deal of work and further estimation and so the total FNPF contributions for government employees were distributed pro rata according to the total wages and salaries paid by the different government services. There is some evidence that this procedure conformed quite closely to the estimated actual situation.

Some of the routine or regular items of expenditure, as well as perhaps the more unusual categories of expenditure (e.g. hurricane damage) listed in the annual estimates or financial accounts of the Public Works Department, Department of Agriculture, Marine Department, etc. of the Fiji Government, included a fairly significant element of wage payment which was not readily apparent on first examination. As far as possible such information about wages paid was obtained separately, but in some cases the Bureau of Statistics found it necessary to estimate, if only approximately, the element of wage payment in these headings. It should be recognized, therefore, that a large share of the expenditure appearing—in particular under the ISIC industry heading, "building and construction"—in this table probably represents wage payments. Unless some distinction is made, the true share of wages in total current Central Government expenditure and in

each separate category of government service provided cannot be very readily estimated.

The importance of distinguishing wages both by type of government service and as a proportion of each expenditure category arises from the fact that wage and salary payments normally form not only the most substantial but also the fastest growing element of government current expenditure. The relative costs of performing particular functions can be seen at a glance and the implications of various wage and salary settlements also analysed. In this latter respect, it would probably prove even more fruitful to divide total wages and salaries paid into the two distinct categories of unestablished (generally non-permanent and usually wage earning) staff and established (permanent and pensionable, almost without exception salary earning) staff. Wage rates and scales in the former category tend to be negotiated by the appropriate trade unions in direct consultation with the government, while the latter are settled on the basis of negotiations between representative staff associations, staff councils and the government. The aggregate wages bill and the different wage scales applying to unestablished staff also tend to change at more frequent intervals than those of the established staff although possibly by smaller amounts and degrees respectively.

Perhaps one of the greatest virtues of this type of table is that it can be very readily and easily adapted to meet the requirements of a modified Seers type of general input-output table for an underdeveloped economy of the style produced, for example, by the Zambian government in 1964.<sup>3-6</sup> A similar input-output table for Fiji relating to the year 1966 was produced by E. C. Dommen of the Commonwealth Secretariat to form part of the general basis for macro-economic planning in Fiji.<sup>7</sup>

## 2. BUSINESS INCOME DATA COLLECTION PROCEDURE

As in most countries, the basic source material relating primarily to business incomes is for the most part derived from amalgamated tables produced by the Inland Revenue Department. The Inland Revenue Department extracts the required data from all regular company and business returns submitted to the Commissioner each year for assessment for tax purposes.

In Fiji, the Inland Revenue Department transposes information appearing on a company or business balance sheet and profit and loss account on to a specific statistical sheet prepared by the Bureau of Statistics. (Copies of this statistical sheet may be obtained from the Government Statistician in Fiji or the

<sup>3</sup>Dudley Seers, "An Accounting System for Projections in a Specialized Exporter of Primary Products", Conference Paper, International Association for Research in Income and Wealth, Corfu, 1963.

<sup>4</sup>The National Accounts and Balance of Payments of Zambia, 1954-1964. Central Statistical Office, Lusaka, 1965.

<sup>5</sup>Report of the UN/ECA/FAO Economic Survey Mission on the Economic Development of Zambia, 1964.

<sup>6</sup>Charles R. Frank, Jr., "The Seers Modified Input-Output Table: Some Projection Techniques", *The Review of Income and Wealth*, Series 13, No. 3; September, 1967.

<sup>7</sup>E. C. Dommen, "An Input-Output Table for Fiji", Technical Paper, Commonwealth Secretariat; 23rd January, 1969.

author.) Only a brief examination reveals that the information which the statistics office has attempted to derive from the sheet is extremely comprehensive. The adoption of this particular statistical procedure has enabled the Bureau of Statistics in Fiji not only to maintain a specific system of data collection and consequently some degree of consistency from one year to the next, but also to establish methods for grossing-up underestimated information about company profits, dividends and interest for example. The data collected on the statistical sheet are punched on to four separate punched cards for each business and processed into a series of very useful tables using the government's computer. An example of one form of table derived automatically from this data is shown at Table 2. Additionally, the statistics office produces tables relating to the trading accounts, the balance sheets and appropriation accounts of firms.

TABLE 2

The type of classification provided broken down by 46 ISIC categories and the actual number of returns submitted in each industry group:

Stock adjustment	Income	Expenditure
Opening stock	Sales	Salaries and Wages
Purchases	Farm income	Rent
Manufacturing wages	Rent	Rates and Local Taxes
Manufacturing materials	Interest (and dividends)	Freight and Cartage
Closing Stock	Commissions	Insurance
Adjustment	Gross Turnover	Repairs and Maintenance
		Interest
		Depreciation
		Bad debts
		Other
		Total Expenditure

Although it has proved impossible to avoid using data collected as a by-product of the tax system and administrative procedure, the Bureau of Statistics, having drawn up the statistical sheet and the tables in question, has been able to adapt these tables for its own purposes. The office can prepare grossed-up estimates of profits, for example, not only on the basis of the number of firms but also from information appearing under the heading "other expenditure". An item such as "other expenditure" appearing in a firm's financial accounts sometimes incorporates significant overseas payments such as "head office administration charges", "personnel transfer payments" and other forms of factor income payments and, as such, they should be considered as operating income rather than service charges or some other form of expenditure deductible or not for tax purposes. An examination of the detailed description and explanation of methods used to produce the income estimates indicates that the Bureau of Statistics subdivided this very substantial item of "other expenditure" (which usually constituted something

like 50 per cent of the total expenditure appearing in the aggregate profit and loss accounts by industry) and reallocated the estimated part of this item which comprised factor payments to operating income and profits. Insofar as "other expenditure" includes ordinary "administration" charges which in turn may incorporate a significant element of labour payment, part of this item could also be assigned to wages and salaries. In some industries where "other expenditure" formed only a relatively small proportion of total expenditure, a proportionately lower percentage deduction was made and subsequently allocated to the factor income section of the tables. One of the basic assumptions underlying this sort of estimation procedure must be that information relating to the receipts of business enterprises tends to be reported reasonably accurately by most firms submitting income tax returns, but that expenses under the various categories listed inevitably tend to be exaggerated in order to reduce a firm's tax liability on the profits which it has earned.

Again, the different types of tables produced on the basis of the statistical sheet have the added virtue of lending themselves very easily to adaptation into a general input-output table of the economy of the modified Seers form.

The main disadvantages, apart from the biases involved, of having to rely on this sort of method for compiling data relating to business incomes in an economy are, firstly, the inevitable time-lags associated with the procedure and, secondly, the need to reconcile certain differences in the accounting practices and financial years adopted by the various business concerns. Accounts relating to the year  $t_0$ , for example, are usually prepared mid-year  $t_1$  and are then submitted to the tax office at the end of the year  $t_1$  or at the beginning of year  $t_2$ ; the statistics office might possibly only receive the first batch of aggregate workable data by mid-year  $t_2$ , if they were lucky, and this would probably imply publication at the end of year  $t_2$ , at the very earliest—by which time, of course, the data is inevitably at least two years out of date. Unfortunately, however, there seem to be few acceptable ways, except perhaps by using direct mail questionnaire survey methods (statutory or voluntary) with their similar as well as own specific disadvantages, of by-passing this particular sort and length of time delay.

### 3. PROBLEMS INVOLVED IN THE VALUATION OF RURAL HOUSEHOLD PRODUCTION FOR OWN CONSUMPTION<sup>8</sup>

The national income is normally defined as being a measure of the money value of goods and services becoming available to the nation from economic activity. For convenience of calculation, comparison and general use, the particular money values concerned are usually assessed on a calendar year basis. Historically, this national "dividend" from economic activity was thought of as that part of economic welfare which could be measured in money terms where economic welfare, in turn, formed only part of the greater social welfare embracing all causes of public good or satisfaction. Economic welfare, as such, could be readily defined as the overall flow of goods and services in a given period with

<sup>8</sup>I draw heavily in this section on an article by R. W. M. Johnson "On the valuation of Subsistence Production", Occasional Paper 1, Department of Economics, University College of Rhodesia and Nyasaland, 1961.

due regard being paid to the problems of double-counting, durable consumer goods and other valuation questions.

Thus defined, there can be little doubt that in most developing countries a national income calculation which excludes "subsistence" and non-market production is fairly meaningless. Unfortunately, the methods sometimes adopted to assess the value of this production for own consumption often render meaningless even relatively imprecise interspatial and inter-temporal comparisons of national income per capita. At worst, such comparative measures can be positively misleading—particularly if they have been reduced to constant and equivalent price terms. At best, they have little relevance to overall economic welfare.

More recently there has been a tendency for the emphasis in these calculations to be placed on transactions which take place between important sectors of the economy and the interdependence of these different sectors, e.g. the demand for imports, the burden of government debt service, net income flows abroad, capital-output ratios, the development of the domestic manufacturing industry, and so on, rather than upon the aggregate and its rate of growth. Each of these factors is, of course, important in its own respect but the main industries of the poorer developing territories in particular show remarkably little of this kind of interdependence and the structure of inputs and outputs, although perhaps more useful in programming and phasing the development of government expenditure, can be derived almost as a by-product of the ordinary national income calculation. In either situation, however, the estimation of the equivalent value of goods and services which subsistence producers provide for themselves (but which in other types of economy they would buy from themselves through the market) is important. Such an estimate requires, in the first place, an assessment of the quantities of goods consumed (and stored) such as home-produced food, fuel and shelter (which although it is essentially an "investment" rather than a "consumption" component, is included because the assessment is basically rural household *production* for own use), and the amount of work done in storage and in transport and processing such goods as if they were bought at local markets, e.g. cleaning, removal of waste, etc. In the second place, the valuation requires the assessment and formulation of a set of indicative prices which appropriately value such goods and services at the farm gate, or as if they were bought locally (for practical rather than theoretical purposes) at the nearest proper market. In the latter instance, unfortunately, the case may arise where a village is such a distance from a market that the total cost of marketing—the time spent in travelling, preparation, etc.—exceeds the value of the carried food at the distant market. This would appear to be the case in some instances in Fiji where distances should be measured more in terms of ease of accessibility than actual mileage which tends to be small. But in Fiji, as in many other developing countries, the visit to the market or town or centre also fulfils a number of additional economic and social functions.

There are two basic approaches to the problem of making a fair assessment of the quantity of rural production:

(1) Regular surveys (censuses preferably) of agricultural acreages and yields, distinguishing as far as possible the method of disposal of the final crop. It should be noted that production figures based on acreages and yield data provide

information about biological output which is considerably greater than the equivalent economic output available for disposal amongst alternative uses. The administrative, financial and practical problems of undertaking such surveys are usually so immense that they are conducted on relatively rare occasions which implies that it is not possible to make fine adjustments for seasonal variations from year to year, i.e. in the particular sense of "bad" years as opposed to "good" years for major crops, except where relatively catastrophic conditions occur. In practice, both the acreage estimates and the yield figures (based usually on small samples) tend to be inaccurate and not comprehensive.

(2) Estimates of "de facto" rural population per capita requirements of grains, meat, fuel, etc., excluding cash purchases from the urban areas; plus, urban population production of home produced food (even though it is *rural* household production for own consumption under consideration). Per capita consumption estimates are usually based on rural household "expenditure" or consumption surveys, often from selected (because they are particularly interesting) or non-randomly chosen areas; either they are very poor (or backward) or very rich; or unusual in some other respect. Again, regular household expenditure surveys and, in particular, rural household consumption surveys are expensive and difficult to conduct. The scarce financial and manpower resources available to the governments of developing countries are usually better allocated elsewhere. There is the additional disadvantage (even when the three components of the per capita requirements can be identified) that small errors at the individual level are cumulated in the process of aggregation and the overall end-result may differ considerably from the true position. In the absence of regular surveys, the changing year to year situation can only be estimated in the main from multiplying the per capita rural consumption estimates by the annual "de facto" rural population—in itself a magnitude difficult either to define or measure very precisely in a developing country.

Clearly there are also problems of estimating per capita meat and milk consumption (the problem of the animal that dies, feasts, "bride price" etc.) and firewood use. Since most wood is picked up off the ground it is usually regarded as a "free" good; the real cost, however, is the cost of collection and transport or the loss of extra output. To impute this real cost, unfortunately, raises a number of practical problems.

The allocation of appropriate prices to relevant commodities (and services) is a separate problem on its own; no less difficult either conceptually or practically than the one posed in attempting to compile a meaningful assessment of the physical quantities produced by the rural household sector.<sup>9</sup> Leaving aside the special problem of assessing the value of the wider variety of services (often of an economic nature, e.g. harvesting, etc.) performed by the housewife in these rural areas, there are several difficulties connected with the pricing of the goods produced by this sector.

Ideally, rural output for own use (i.e. excluding identified market sales) should be valued both at farm gate prices and at the higher market prices, the difference between the two valuations representing the value of "rural household services", i.e. cleaning and preparation of harvested crop for market, storage,

<sup>9</sup>P. M. Deane, *Colonial Social Accounting*. Cambridge University Press, 1953.

bundling, transport, post-harvesting wastage, etc. In neither case can the prices be accurately estimated, even if there is, for example, a wholesale purchasing co-operative or marketing co-operative dealing with some of the goods which are for resale in the money economy. The basic problem of principle which arises is what would be the relevant real prices if the whole of the subsistence output were marketed at the level it is consumed? Generally, of course, such prices would be lower except where the prices of certain crops have been specially subsidised by the government.

It is necessary, too, to collect prices from a wide range of areas and preferably, month by month. Each district or provincial price for a particular commodity should then be weighted according to (the assumed known) seasonal variations in consumption. Unweighted "national" average prices can only be theoretically justified if consumption is known (or assumed) to be reasonably constant from month to month which, in general, is not the case for most crops because the natural pattern of food consumption of the rural population in relatively underdeveloped areas is strongly influenced by environmental conditions and seasonal crop variations. In practice, however, unweighted average prices often have to be used because the lack of suitable data makes the task of assigning appropriate weights too arbitrary to be worth doing. Frequently, also, these prices are, of necessity, market prices; thus, transport and distribution margins are included in this valuation even if in the overwhelming majority of instances no actual movement takes place in the consumption concerned. The existence of officially controlled or subsidised prices only serves to complicate the issue. In some African countries, for example, the adoption of a valuation based on the retail price of the most processed form of the produce—i.e. all produce is valued at town consumer prices, implying the imputation of all elements of transport and processing to goods which do not enter any market—leads to an over-exaggeration of both the size (and relative proportion) of the so-called "subsistence" sector and of the gross domestic product. In the absence of official intervention in the market, these prices tend to be those which more or less equalise supply and demand when say, more than half the population basically feeds itself. On the other hand, if those prices are not sufficient to draw all subsistence production on to the market, it could well be argued that it is because the opportunity costs involved are too high and, therefore, it is fair and reasonable to value any subsistence output at retail prices. From general observation, what does seem fairly clear is that a considerable price rise is usually required to make it worthwhile for these rural producers to buy their food instead of mixing subsistence and cash crops as they do at present. As greater numbers of the rural population become absorbed into the money economy, the valuation of most subsistence crops will change too and a completely different supply and demand position could possibly emerge from the existing one.

It is very rare that sufficient information is available to prepare a realistic estimate of rural household production for own consumption. In practice a wide variety (and sometimes a combination) of methods is used, based on both the production and consumption approaches, to obtain a reasonable assessment of physical output. This and the choice of appropriate price series depends essentially on what data is available rather than on what is theoretically most meaningful.

Each developing country differs from the next both in the method of valuation adopted and in what is included in this valuation. Where the subsistence sector forms a relatively high proportion of G.D.P. as it does, for example, in Lesotho, Botswana, Tanzania and Tonga it is necessary to qualify any per capita national or subsistence income figures by a statement regarding the method of imputation which has been adopted in the valuation of the rural household production figures shown in the accounts.

In the case of Fiji, mainly for the reasons outlined above, the estimates appearing under the heading "gross income from unincorporated enterprise—rural households" (and which are included in the main national accounts tables both on the income and on the expenditure side) are derived from data collected in the 1968 Census of Agriculture of Fiji (Casley), the 1965 Rural-Urban Household Expenditure Survey (Narayanan) and published and unpublished Ministry of Natural Resources and Bureau of Statistics data relating to agricultural output and prices. The Bureau of Statistics data are obtained from a continuous rotating agro-economic survey. An alternative and independent estimate based primarily on per capita consumption and nutrition survey data and estimates of the "de facto" population and market prices is also included primarily to provide some measure of the "accuracy" of the general magnitude of the production based estimate.

These three features of the official national income tables of Fiji which are fully explained in the accompanying technical and descriptive notes to the Report, provide a particularly useful foundation for practical economic analysis and policy and—in indicating by the methods chosen, the possible biases and errors involved in the calculations and estimates—provide an important guide as to the degree of reliance which can be placed on the published data.