DEVELOPMENT OF NATIONAL ACCOUNTS FOR FIJI ISLANDS

by Mohammed Ali Sahib

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CURRICULUM STUDIORUM

Mohammed Ali Sahib was born August 6, 1929, in Lautoka, Fiji Islands. He received the Bachelor of Arts (Honours) degree from Government College, Lahore, West Pakistan, in 1955. He received the Master of Arts degree in Statistics from the University of the Panjab, Lahore, West Pakistan, in 1957. According to the University regulations a thesis for this latter degree was not compulsory, but he did specialized work in demographic branch of statistics. He worked as statistician for the Government of Fiji in the Customs Department, Burns Commission's local staff, and Commerce and Industries Office during the period from October, 1957 to August, 1960.

CONVENTIONS

Although it is customary to adopt a phonetic form of spelling for Fijian names in maps, reports and writings on Fiji likely to be read outside the Colony, the standard Fijian spelling is adopted in this thesis. It is not considered that to the majority of the uninitiated outside Fiji the correct pronunciation will be a matter of great concern. For those who wish to use it, the following table will be an adequate guide:-

b is pronounced	"mb"	as in timber
c	"th"	that
d	"nd"	band
g	"ng"	sing
q	"ngg"	finger

All sums of money are expressed in Fijian pounds unless stated to be otherwise. The official rate of exchange is £ Fijian 111 = £ Sterling 100 = $ Canadian 295.188.

Government Departmental Reports and other Government publications are normally issued as papers in the Journal of the Legislative Council of Fiji, and have an admirably simple reference by number of paper and year. They are referred to, for example, in the form C.P. (for Council Paper) 29/1958.

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INTRODUCTION

Comprehensive economic policies are almost always formulated on the basis of national accounts analysis. Without this basic information the development plans of emergent nations are necessarily haphazard and unco-ordinated. Resources tend to be inefficiently utilized and the maximum social productivity remains unattained.

Many underdeveloped countries are aware of the need for national accounts but they are invariably poor in statistical information. Serious attempts are being made to remedy this deficiency. The task is so enormous that it will be some time before these countries have adequate statistics.

Advanced countries have come to the aid of under-developed nations by seconding experts to them to help organize national income studies. These experts have to cope with two fundamental tasks. First, economic concepts which are appropriate in developed economies must be modified and in some cases redefined in the context of developing economies. Second, ingenuity must be employed with the poor statistical data in estimating sectors and components to arrive at realistic national product and expenditure aggregates.

This report is a case study of the Fiji Islands' national income and social accounts. It begins with a survey of the collection, coverage and adequacy of statistical material available in Fiji. This will be of particular importance in revealing some of the obvious shortcomings inherent in the unco-ordinated raw data.

The conceptual difficulties are considered in the second chapter. The presence of a large volume of subsistence activities in the economy makes it necessary to pay special attention to this phenomenon so that the true account of the national output may be presented in any estimate.

A suitable methodological framework is discussed in Chapter III. Its use, it is suggested, will not only reveal the operations of the Fiji economy but also help organize the collection of statistics which are essential, relevant and comprehensive.

In Chapter IV this national accounting framework is illustrated with the available or estimated data for the year 1958. The following chapter describes the sources and methods of compiling the given statistics.

Chapter VI proposes the possible trend of development in the general field of statistics in Fiji. Future need for benchmark statistics and constant price estimates is considered.

Indirectly this report is an extremely valuable prelude to the type of work the writer will be expected to do on his return to Fiji. It is therefore contended that this is the type of practical academic qualification which best prepared students from emerging countries.

CHAPTER I

DEVELOPMENT OF ECONOMIC STATISTICS IN FIJI

The usefulness of comprehensive and reliable economic statistics is obvious. A firm must have adequate data about production, labour costs, prices, raw materials and inventories. An industry will need to have information on markets, imports and exports, taxes, and so on. A state which has responsibilities towards its people and which is required to play a role in the international sphere, must have more comprehensive statistics of all types. But an underdeveloped country, such as Fiji is, has all the more need for statistics of economic and non-economic nature. It needs statistics about world market conditions so as to be able to sell its exports by producing them at favourable costs. Statistics are required to assess its internal potentialities in order to diversify its economic base and thus avoid being vulnerable to fluctuations in international prices for its exports, to suggest productive channels of investment within to private capital from abroad, and above all to seek aid from other countries and international agencies for its future development. No comprehensive long term development plans can be drawn without such information. And plans to underdeveloped countries are absolute necessities.

Less developed countries or economies came into the focus of world's interest and attention after World War II. It is interesting therefore to note the changes in terminology applied to these less industrialized countries within this short period of time. Writers used to speak of them as "backward" nations, which naturally irritated the peoples of those lands. The United Nations to avoid offence used the roundabout expression "less-developed", and sometimes "underdeveloped". Today most people adopt the expression "underdeveloped",[1] or still more recent term, the "emerging" nations. It is believed that this latest term has a more ready appeal than any expressions previously used.

What is generally implied by the expression? Samuelson gave this answer:

> An underdeveloped nation is simply one with real per capita income that is low relative to the present-day per capita incomes of such nations as Canada, the United States, Great Britain, and Western Europe generally. Usually an underdeveloped nation is one regarded as being capable of substantial improvement in its income level.[2]

Others have added to the low per capita income

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[1] P. Samuelson, <u>Economics, An Introductory Analysis</u>, New York, McGraw Hill, 6 ed., 1958, p. 751.

[2] <u>Ibid</u>., p. 752.

other economic characteristics in their explanations of the underdeveloped country. They are:

- High proportion of the population in agriculture. It would be possible to reduce the number of workers in agriculture without affecting total output.
- Considerable disguised unemployment and a lack of opportunities outside agriculture.
- Whatever savings do exist are usually achieved by a.... class whose values are not conducive to investment in industry or commerce. Other sources of capital are very meagre.
- The primary industry, that is, agriculture, forestry, and mining, are usually the residual employment categories.
- Major proportion of expenditures on food and necessities.
- Poor credit facilities and poor marketing facilities.[3]

Another important characteristic, if not the definition of underdeveloped countries, is the lack of adequate reliable statistical information.

1. Collection of Statistical Data in the Past

The group of islands, some 300 in number, which go by the name of Fiji Islands, was ceded to the United Kingdom Government on the 10th of October, 1874, by its paramount chief, Cakobau, when he faced difficulties to meet his fictitious "commitments" claimed by some white traders

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[3] Harvey Leibenstein, Economic Backwardness and Economic Growth, as quoted by Benjamin Higgins in his book Economic Development, New York, Norton & Co., 1959, p. 11.

who had gone to the Islands in the 1820's for sandal wood, and later for beche-de-mer, a sea-slug which, when dried, found a ready market in China for culinary purposes. A fresh tide of white immigrants, particularly from Australia, came to Fiji following the end of the alluvial goldmining in Australia, in 1865,[4] by which time there was a permanent white population of planters. Their main activities were concerned with production and trade in coconut oil, coconut fibre, beche-de-mer, tortoise shell, cotton and sugar. Sugar and cotton were being cultivated on plantations, and in the 1860's cotton particularly enjoyed a boom owing to the cutting off of American supplies through the American Civil War. Sugar, which was later to become the backbone of Fiji's economy, was first exported in 1875.[5]

The hand-over of Fiji Islands, rectified by a Deed of Cession, the Fijian Magna Carta, was in fact necessitated among other things by the apprehension of the natives arising out of arbitrary "purchases" of large tracts of land by the white settlers for such articles as axes, clothes, iron, etc. The take-over, it was believed by the

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4 C. O'Loughlin, The Pattern of the Fiji Economy, The National Income 1950-1953, Suva, Government Printer, 1956, p. 4.

5 Ibid.

Fijian[6] people, particularly the chiefs, would put an end to such abusive practices and protect the Fijian race in respect of their culture, habits and rights especially to land.

The first Governor, Sir Arthur Gordon, was appointed in 1874 to this constitutional Crown Colony. He organized an administrative machinery and took as his first task the "arresting of the rapid break-up of Fijian society under the pressures of European private enterprise, pressures which the Cakobau Government was quite unable to control or withstand".[7] This attitude of the officials from the beginning in fact contributed to Fijians adopting subsistence, and not the market type exchange, economy.

With the administration organized collection of statistics, the bare minimum, was largely as a by-product of administrative process. Two departments in particular have been quite active in the collection of statistics through this method.

The Customs Department of the Government of Fiji compiled valuable trade statistics. Information on imports and exports with distinction between domestic export and

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6 The term "Fijian" refers to the indigenous people of Fiji. Other races go by their respective names, viz: Europeans, Indians, Chinese. In this thesis, therefore, this distinction will be maintained.

7 O.H.K. Spate, The Fijian People: Economic Problems and Prospects, Suva, Government Press, 1959, p. 31.

entrepot trade are today available from 1891.

Even for the period before 1891 some statistics were available as the following clearly shows:

> ...In 1878, four years after the cession of Fiji to the British Crown, the values of the colony's main exports were as follows:- Copra £122,194, cotton £20,000, sugar £18,640. There were in Fiji 9,166 acres of coconut plantations, 2,390 of cotton, 1,219 of sugar, and 1,000 of maize. Banana shipments were started in 1877 and reached 43,062 bunches by 1879. The recorded values of copra and sugar exports had more than doubled in the four years after cession. The colony's imports had also practically doubled in value. In 1875, Government Revenue stood at £16,000 and Expenditure at £70,000, but by 1878, Expenditure had been brought into line with Revenue which had nearly quadrupled and stood at £61,000...[8]

The other reliable statistics existing in Fiji in the early days was the migration statistics particularly of the Indian immigrants brought into Fiji as indentured labourers to work on the sugar plantations after attempts to use other neighbouring Pacific Islanders from Solomon Island and Ellice Island had been unsuccessful. The first group of Indian immigrants, 481 in number, arrived in Fiji in 1879. By this time the Indians had built up a reputation as good plantation workers, especially in sugar cane, by their records in Mauritius, British West Indian Territories and Natal, South Africa. Immigration of Indians was

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[8] C. O'Loughlin, op. cit., p. 5.

slow in the 1880's but was speeded up in 1890s. By 1896 they numbered over 10,000. Besides indentured labourers there were the free settlers and by 1904 about 10,000 of the total 22,700 were free settlers. When the indentured system ceased in 1916 there were 62,837 people in total to be introduced under the system. Of these 24,655 exercised their rights of repatriation.[9]

These immigration figures had to be collected for obvious reasons, and today provide a valuable nucleus for demographic studies of Fiji Islands.

Health and vital statistics also apparently have had an early start. In 1899 a Commission was appointed to look into the causes of decline of the Fijian population which from a reputed 150,000 at the time of Cession in 1874 had declined to less than 100,000 in 1901 probably due to contact of European diseases.[10] Obviously the Commission must have compiled revelant statistics on which to base its recommendations. It is conclusive therefore that the impetus of today's elaborate vital and population statistics originates from the foundation work carried out by this Commission. The Commission had recommended that the Government undertake expenditure in medical, sanitation and

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[9] R. A. Derrick, _The Fiji Islands_, as quoted by C. O'Laughlin, _ibid._, p. 5.

[10] _Ibid._, p. 130.

educational projects. By 1906 stability in Fijian population was evident. It is interesting also to note that this "early concern with native population problems is probably one of the main reasons why Fiji has now got one of the best and most widespread medical services of any colony, composed not only of young people trained during the recent post-war period of plentiful money, but boasting a solid core of native and European staff with nearly a lifetime of experience behind them."[11]

Most of Fiji's earlier statistics of trade, agricultural production, Government revenue and expenditure, and education were published annually in what was commonly known as the "Blue Book". The practice apparently started during the closing years of the last century and continued up to the late thirties when trade statistics, because of its increasing volume and detailed coverage, had to be separately published. About this time the system of annual departmental reports was also devised, each department publishing its own relevant statistics. Thus the disintegration and eventual disappearance of the "Blue Book" of Fiji.

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[11] C. O'Loughlin, op. cit., p. 5.

2. Occasional Interest in Statistics

The history of development of statistics in colonial territories is one of spasms and interruptions. Until very recently almost all senior and middle grade officers in the administrative machinery were people from the metropolitan countries, leaving only the junior clerks to be the people of the colonial territories. Only a very few of these expatriate officers had the ability to remould their educational training to suit the conditions of an underdeveloped land. That the environment of their training, i.e., Western Europe, differed from that of the place of their duty in the colonial countries was obvious. Many of these administrators, newly appointed to jobs of responsibility, tried to impose the standard methodology and concepts befitting a Western and developed economy to the slow, subsistence economies of the colonies. Their enthusiasm and sometimes sincere wish to do something for the people allowed them little time to assess the differences that existed. Not many had even such enthusiasm. The result was spasmodic development, sometimes very biased.

There was also the subjective element of these expatriate administrators. They had diversified interests and training. The development of statistical series many a time depended on the interests of the officer concerned, or on the particular needs of his department, or on his ability to spare a junior person under him to collect relevant statistics.

A few administrators had some statistical inclinations but more often than not it was in some particular field. Obviously statistics in that field developed. Or as stated earlier the dictates of time or circumstantial needs also led to the compilation of statistics in some one particular field. But neither the circumstantial need nor the administrator was a permanent feature, or could remain so. Transfers of officers particularly among the British colonial territories were common. When once a transfer was effected a successor inevitably followed. He might or might not have had any inclination towards statistics. If he happened to like statistics but in a field different from his predecessor's he had no hesitation to switch over. Discontinuities in the series were therefore inevitable due to such factors.

Consistency in the statistical series also suffered. With each change of officers due to transfers or retirements the successors revised their coverage and methodology leaving the work already done quite isolated and of practically little comparative value. Manipulated adjustments could have rendered intertemporal comparison meaningful but such adjustments were never made, the older series having been neglected altogether.

Many of the administrators were old and long since out of their universities or colleges. Old methods and ideas dictated their efforts in the field of statistics if they were any the keener to compile figures. New developments in thoughts, concepts, ideas and methodology largely remained unnoticed or unheeded and therefore unknown. One could keep up with new ideas and developments through journals, reviews, etc., but these were difficult to come by in early colonial days and administrators were far too occupied with administrative chores.

New ideas and developments could have been incorporated in the system of statistics by the new "crop" from universities. But these fresh recruits into colonial services were largely at the level of junior officers, not of the decision making status. Their efforts largely remained either unnoticed or regarded as unacceptable due to many and varied reasons.

It may be worthy to note in passing here that after World War II there has emerged a new feeling of nationalism among the colonial peoples. The metropolitan governments too have wished to see their former colonies independent nations equal to them in all respects. This led to the increasing utilization of local resources of which skilled manpower is one among many. The use of local people qualified through aid programmes or individual initiative are being employed in increasing numbers in the administration. They possess many inherent comparative advantages over their expatriate counterparts. Above all, they instill a sense of permanency in all efforts, and compilation of statistics being no exception.

The shortcomings listed above apply with equal emphasis to Fiji as they do for many other territories. Hitherto all statistics have been collected on an ad hoc basis, largely as part of administrative functions. Trained and qualified personnel were few and facilities meagre. Besides, there never has apparently been any serious interest to develop statistics although there were many suggestions to the effect. This will be evident from Section 3. One example will probably be indicative of the official attitude:

> The first attempt at estimating Fiji's Balance of Payments was made in 1936. This study was recognized at the time to be inadequate owing to the difficulties of obtaining data.[12]

The next attempt was not until 1950 and that too at the direction of the Secretary of State for Colonies from London.

3. Plea to Develop Statistics

The dependent status of Fiji with regard to capital, skill and technology has in the past been the cause of

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[12] C. O'Loughlin, *op. cit.*, p. 56.

occasional internal economic disharmonies between the various sections of its people such as the farmers and the millers, and the workers and the employers. It must, on the other hand, be admitted that Fiji has been free from any racial strife although people of quite different cultural and ethnic background, such as Indians, Fijians, European and Chinese, with diversified attitude towards material things and system of living reside within a total area of 7,055 square miles. However, of late some apprehensions have been expressed in some quarters about the disproportionate growth of various races in the spheres of economics and population. That this would require sounder economic planning for more equitable future development, or lead to the other extreme of worsening racial feelings and the deportation of some sections of the population as some are subtly advocating, would only be revealed by the future. The first alternative is likely to prevail. It was recommended strongly by a recent Royal Commission on "Natural Resources and Population Trends of the Colony of Fiji"[13] which virtually ruled out the second alternative.

The Report of the Commission comments on the state

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[13] Commissioners were Sir Alan Burns, Chairman, Mr. T. Y. Watson, and Prof. A. T. Peacock. The Report was published in 1960 as C.P. 1/1960.

of Statistics of Fiji. Two such comments are: "...paucity of economic information in the colony"[14] when talking of an industrial development policy; and "...economic statistics for Fiji were found to in a rather primitive state"[15] when dealing with past economic planning which was "conducted in an almost total absence of qualified staff..."

The Burns Report, as this document is popularly known, stressed "that economic information....should be the responsibility of one government department only and not several and that it should be processed and interpreted by persons with some training in economic statistics and economics..."[16] It added later:

> The collection and analysis of ... information can only be carried out with the co-operation of the business community and it would be a tribute to its sagacity and farsightedness if it became possible to collect this information without the introduction of a general statistical ordinance of the kind in force in some of the other colonial territories.[17]

This report was not the first to stress the need for better statistics in Fiji. Earlier in 1944, Dr. C. Y. Shepherd, an agricultural and industrial relations expert from Imperial Institute of Tropical Agriculture, Trinidad,

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14 *Ibid*., p. 101.

15 *Ibid*., p. 114.

16 *Ibid*., p. 97.

17 *Ibid*., p. 114.

British West Indies, also pointed out the need. He went to Fiji to arbitrate in a prolonged dispute between the sugar cane growers and the millers over raw sugar cane purchase price, in 1943. After the conclusion of his mission he made a separate study on the Agricultural Policy for Fiji and presented to the Government a report[18] in which he remarked:

> The work of Government is repeatedly hampered by the lack of comprehensive and up-to-date statistical data. The deficiency is by no means confined to agricultural statistics.

He recommended that "the services of a statistician should be secured to advise on the collection and compilation of agricultural statistics in Fiji."

Not long after Dr. Shepherd's remarks, a certain Mr. Cruickshank[19] presented a detailed plan, with remarks, for the organization of a statistical office, its staff and functions. Apparently, the idea did not appeal to the then Colonial Secretary and the whole scheme remained a secretariat memorandum. Such arbitrary decisions at the top are characteristics of an underdeveloped nation.

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18 C. Y. Shepherd, Report on Agricultural Policy for Fiji and the Western Pacific High Commission Territories, Suva, Government Press, 1944, p. 13.

19 I am not exactly aware of his credentials or the purpose of his visit to Fiji, or even the Secretariat file number where his remarks stand, but I am sure of the existence of the file and remarks as I had worked on a similar task while with the Government of Fiji.

However, in studying all the various periodic attempts towards the formation of a statistical system in Fiji one feature is apparent: the lack of positive decision at the proper time. Rather the practice was to "pass the buck" to some one else, preferably towards the top, for decisions. Miss Barbara Ward talking of Indian Planning Commission and state-owned enterprise run by former Indian Civil Servants says:

> ...the tradition of speedy decision-making and swift executive action is not yet highly developed. The tough breaking of bottlenecks does not come easily to the civil servants trained in British tradition. He prefers to defer action while all the alternatives are weighed - or simply pass on the file.[20]

Cumulatively these delays caused a loss of interest and, unremedied, have decidedly worked against the creation of a statistical system in Fiji.

Soon after the war a war-time price control officer was redesignated as Government Statistician. Some basic economic statistical series as reclassifying of public accounts, unit price indices of imports and exports, and terms of trade were organized. An attempt to construct life tables was made. It was this officer who reorganized with the help of a framework from Colonial Office, London, the

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[20] Barbara Ward, India and the West, New York, W.W. Norton and Company, Inc., 1961, p. 160.

abandoned attempt to compile balance of payments statistics, an admirable piece of work considering the very meagre resources available to him.

However, the office of the government statistician did not remain as such for very long. It was changed to Commerce and Industries Office in the early 1950s with the officer concerned redesignated as Commerce and Industries Officer, with additional duties of internal and external marketing which was becoming important because of growing population pressure and need to diversify economic base of Fiji from its one-crop economy. In his new capacity he also became the trade correspondent to the U.K. Board of Trade. The duties of economic adviser to the Government of Fiji also came to him, and he became a consultant for all overseas inquiries for investment prospects in Fiji. Issues of import licences for dollar area goods and other restricted imports was another major task. These duties have since remained the function of Commerce and Industries Office which has had some addition to its staff but not specifically trained to carry out statistical duties.

It is not surprising, therefore, that the development of statistics suffered once again. The Burns Report's description of "rather primitive" economic statistics does not seem exaggerated. Although the local resources, i.e. financial provisions and skilled personnel, do not seem to warrant at once any elaborate system such as the Dominion Bureau of Statistics of Canada a central statistical office primarily concerned with compilation of comprehensive statistics seems imminent.

4. Survey of Present Statistical Resources

Population censuses in Fiji have been quite regular. The first census was taken in 1881 and thereafter continued at 10-year intervals until 1921. The next one was 15 years later in 1936 whence once again decennial censuses were resorted to. Census results were analysed into such details as sex, race, age, occupation, religion, household composition, types of dwellings, educational attainment, etc. These censuses are taken to be quite reliable. No analytical work, however, has ever been attempted from these essentially raw data. Table I contains the summaries of censuses taken so far.

As already indicated earlier, trade statistics of Fiji have a long record and are fairly detailed. Entrepot trade, i.e. re-exporting of imported goods to the neighbouring Pacific Islands, is of significant importance both as a source of income to people and institutions of Fiji and as an indication of Fiji's economic position in that geographical region.

TABLE I

RACIAL COMPOSITION OF POPULATION
1881-1956

Year	Fijian	Indian	Others	Total
1881	114,748	588	12,150	127,486
%	90.01	0.46	9.53	100
1891	105,800	7,468	7,912	121,180
%	87.31	6.16	6.53	100
1901	94,397	17,105	8,622	120,124
%	78.60	14.20	7.20	100
1911	87,096	40,286	12,159	139,541
%	62.42	28.87	8.71	100
1921	84,475	60,634	12,157	139,266
%	53.71	38.56	7.73	100
1936	97,651	85,002	15,726	198,379
%	49.22	42.85	7.93	100
1946	117,488	120,063	22,087	259,638
%	45.25	46.24	8.51	100
1956	148,134	169,403	28,200	345,737
%	42.85	49.00	8.15	100

Source: Census Reports.

Until 1954 Fiji had its own system of classifying imports and exports. From 1955 the Standard International Trade Classification of the United Nations was adopted thus facilitating direct international comparison.

Banking statistics, published once a quarter in the "Fiji Royal Gazette", include a statement of assets and liabilities of Fiji's commercial banks, debits to customers' accounts, and a statement of assets and liabilities of commercial savings banks of the colony. Each of the three[21] banks have savings bank facilities which they organized since 1957. In addition the government has its Post Office Savings Bank with a much older history. Its statistics are published yearly in a separate annual report as a Council Paper in the Journal of the Legislative Council. Commercial banks have hitherto supplied relevant statistics on voluntary basis but only after due cajoling by the Financial Secretary and Commerce and Industries Officer.

Statistics about construction, residential and commercial, for the city of Suva, the capital, only are published about once a month in Fiji's only daily English language paper, "The Fiji Times". Apparently these statistics are compiled from the building permits issued by the Suva

21 Bank of New South Wales, Bank of New Zealand, and Australia and New Zealand Bank, Ltd. A fourth one, Bank of Baroda, Ltd. started operation in 1961.

City Council. Details include alterations, additions and new construction. Such statistics would have been really valuable for national income studies had other towns and townships and local health offices which issue permits for all construction, rural and urban but not of Fijian communal villages known as the koro, published their figures or supplied them to a central agency which could compile valuable series out of them.

The measure of cost of living was first initiated during the war. Three series, (a) Indian Workmen in Suva town and environments, (b) Indian Workmen in Viti Levu (excluding Suva), and (c) European families, were compiled since September, 1943 with August, 1939 prices equal to 100. These indices have been on quarterly basis and published in the Labour Department's annual reports with quarterly changes issued through the Department's press releases and appearing in the local press.

The trend of price movements is indicated in Table II. Two serious deficiencies are inherent in these indices. A major component of the population, the Fijians, are omitted. This omission has never been explained anywhere. Perhaps the large subsistence sector in Fijian income involving no real monetary transaction makes a cost of living index for them meaningless and unrepresentative. However, without a national series the national income deflater must necessarily be devised through ad hoc means.

TABLE II

COST OF LIVING INDICES
August 1, 1939 = 100

Date	(a)*	(b)*	(c)*
January 1, 1944	173	215	145**
1945	173	198	143***
1946	164	183	141
1947	189	206	156
1948	204	229	170
1949	210	238	172
1950	212	237	182
1951	222	252	191
1952	259	293	219
1953	263	305	226
1954	274	317	235
1955	275	310	242
1956	274	309	246
1957	285	324	253
1958	281	322	255
1959	281	321	257
1960	281	320	260

Source: Annual Report, 1960, of the Department of Labour.

* (a) Indian Workmen in Suva Area
(b) Indian Workmen in Viti Levu (excl. Suva)
(c) European Families

** For August 1, 1944

*** For April 1, 1945

Secondly, the composition of expenditure has substantially changed since 1943. Easy money, during and immediately after war years, has altered the dietary habits of Indians particularly. Additional amounts are also being expended by all communities on recreation and luxuries the facilities for which have developed significantly since World War II. The weighting system must necessarily be out of proportions and the index itself unrepresentative.

A new series of cost of living index on a national basis was undertaken in 1958 with the help of a statistician from New Zealand. The results have not been published yet.

Substantial statistical information exists on government accounts. Budgetary estimates are published at the time of budgets. At the end of the fiscal year, which is the same as the calendar year, the Accountant-General publishes a "Report on the Accounts and Finances" of the government. The details follow strictly the budgetary votes. One authority on colonial national income studies said:

> ...the classification of accounts according to votes is not suitable for our purpose (i.e. national income) and, indeed, once double-counting is removed, every item in the accounts had to be reclassified for national income purposes...[22]

Local governments of city, towns and townships publish their annual accounts in the local newspapers. They

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[22] A. T. Peacock and D. G. M. Dosser, The National Income of Tanganyika, 1952-1954, London, H.M.S.O., 1958, p.55.

are, however, not co-ordinated.

Appendix 1 gives a comprehensive list of statistics collected by the different government departments. These are published in their respective annual reports. It will be noticed that there are repetitions of information which either entail duplication of effort or mere interdepartmental transcription. Besides no beneficial use of these statistics can be possible, scattered as they are, unless all the relevant series are co-ordinated and compiled into one single statistical digest or bulletin and published as such under the auspices of a central statistical office.

It must be remembered that much of these statistics are collected as the by-product of administrative function of the departments. Many of these collections of raw data will have to continue as at present for some time yet until the central office is well organized and staffed. All statistics must eventually be handled at the central office, however, where trained and qualified people can better work them for the use of the Government and public at large.

5. Statistics Legislation of 1961

An Agricultural Statistics Ordinance of 1921 was the only legislative authority existing in Fiji. It had provisions for collection of data on agriculture and agricultural industries, both secondary and tertiary. Some other statistics were offered on voluntary basis by the business community. Both these arrangements were unsatisfactory. Agricultural Statistics Ordinance was limited in coverage and Fiji's economic development and its present day requirements needed much wider and diversified types of information. Voluntary efforts of the business community was generally inadequate when one or more persons arbitrarily refused to corroborate. Besides, there could be times when persons from whom information was sought were legally bound to refuse to supply such information unless required to do so by law, for example, legal firms acting as trustees and managers of estates.

In view of such difficulties, and largely due to the recommendation of the Burns Commission mentioned in Section 3, a new Statistics Bill was presented to the Legislative Council of Fiji[23] and duly became law when it was passed on August 2, 1961. With this ordinance the "present plans are largely intended to deal with economic statistics but it is desirable to allow for some scope because in the many facets which go to make up estimates of national income, it is difficult to define strictly limited fields of information."[24]

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23 The Fiji Times, August 3, 1961.

24 Public Relations Office, Government of Fiji, Press Release of April 1961.

The next step will be to organize a separate Bureau of Statistics with some qualified, experienced or trained personnel. This is just the beginning; there is still a long way to go towards comprehensive statistics for national income studies and other relevant economic analysis and for economic planning.

6. Problems of Assembling Data for National Income

In general the problems of national income measurement in an underdeveloped country are many and varied. Of purely economic nature are (a) economic backwardness, (b) dependent status, and (c) plural society.

Economic backwardness implies the presence of large subsistence activity which can have considerable disguised unemployment. The range of exports is also limited, often to one or two major crops, in such economies, and the level of incomes is dependent on prices in world markets, and not, as in advanced countries, mainly on the level of investments. Factors of production also are generally slow to move between different economic activities. The question of land particularly is important as, in the case of Fiji, 83.6 per cent of all land is Fijian owned and unalienated and therefore not available for general use by people other than the Fijians.

The dependent status of the economies require not only outside capital but also expatriate skills and technology.

"Development will thus be of a non-indigenous nature and may bring about revolutionary changes in the economy at a speed which does not allow for corresponding adjustment on the part of local factors of production."[25] Rate of profits, availability of suitable land and labour, political security and race relations are important considerations to the expatriates.

The plural nature of the population of Fiji is evident from Table I. People included in "Others" are Europeans, people of mixed European and native descent, Chinese and other Pacific Islanders. These different races are at different stages of economic development and have different attitudes towards economic gain, property and incentives.

Apart from these broad economic problems, there are more specific difficulties inherent in the study and measurement of national income in an underdeveloped country like Fiji. These are as follows:

(a) The presence of a large non-cash sphere of economic activity and the problem of distinguishing between economic and non-economic activity. The pricing of non-cash activity presents a particular problem. More will be said about this in Section 4 of Chapter II.

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[25] C. O'Loughlin, op. cit., p. 11.

(b) The paucity of statistical data. This has been referred to previously. To measure productivity, investment-consumption relationship, multiplier effects, money flows, and relation between volume of output and labour supply need detailed statistics which do not exist. Besides, raw statistics of significance to national income investigation are scattered through many files in several departments largely in unpublished form. Some of these may not be easily accessible.

(c) The presence of large blocks of overseas capital owned mainly by overseas shareholders. This will necessarily require distinction between 'national', 'domestic', 'territorial' and 'resident' incomes according to their popular conceptual meaning in the developed, industrialized economies. This point will be dealt with in Section 2 of the next chapter.

(d) The difficulties of making comparisons of living standards, productivity standards and other economic comparisons between groups within the country and between countries. This problem, however, is universal, applying equally to developed countries as it does to underdeveloped countries. Section 5 of Chapter III will deal with the difficulties faced in such comparisons.

(e) The difficulty of defining industry. In developed economies with a high degree of division of labour, fairly well defined activities can be enumerated. This is not so for developing economies, such as of Fiji. Cases of lateral and horizontal integrations are not uncommon. One firm in Fiji is known to be engaged in such activities as wholesale and retail trade, shipping, insurance and manufacturing. The indigenous communal living is another problematic sector. Joint cultivation of food gardens and construction of native dwellings for the need of the community as a whole present difficulties in assessing the value of these activities separately. Similarly in the case of Indian farmers, who are essentially individualistic, there is considerable overlapping of activities. Fast growing population and inaccessibility to land have compelled the members of Indian farm households to find alternative employment. A farmer may buy his son a car to be operated as a taxi. Another may have a farm tractor which he uses himself on his farm or hires it out for cash returns. Sons of farmers living near towns and industrial centres may be working for wages. All such incomes are combined and invariably appear, if at all reported for tax purposes, as income of the farm household.

(f) The definition of capital formation. Decisions have to be made whether to include only construction and buildings, machinery used in mining, public utilities, sugar and coconut production and certain other cash crops, or such other items as bicycles, sewing machines, boats, etc. as well which in remote parts of the islands may actually be a source of income. If these expenditures are required to earn a living, as they are in majority of cases, they must be included in assessing capital formation.

Even if one has decided to use the three-way flow of output, income and expenditure method of Richard Stone[26] for national income compilation, as many colonial national income students have suggested, the numerous problems are not overcome in the light of available statistical resources. On the production side there is need for a complete annual census of production in the widest sense of the term; on the income side, complete information on income received in money and kind; on the expenditure side, detailed information on the distribution of consumers' expenditure between different commodities, the distribution of government purchases and the distribution of producers' expenditure on capital investment. Thus in the face of these pertinent requirements this three-way method of independent estimates boils down to estimating by any one approach only, usually production, and balancing off others from scanty information for them.

There then is the absence of universities, private research institutions, trade associations and trade unions

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26 R. Stone, Measurement of National Income and Construction of Social Accounts, United Nations, 1947.

to carry out, as in developed countries, extensive research or statistical inquiries in fields related to national accounting. Besides, the total population of a country will largely determine the amount of money resources that can be expended by the government on such studies if the people can appreciate the need for national income at all. One needs little reminder that the burden of national accounting work, series for series and account for account--assuming equal quality--is practically the same for a country which has a population of 40 million as it is for a country of only 400,000.

And when one is remotely certain that difficulties pertaining to concepts, statistics, skill and finance have been solved there remain other difficulties inherent in such small economies as of Fiji. The presence of "entrenched monopolies" and of single-firm industries will require special treatment of their statistics. The sugar industry of Fiji with one enterprise, the Colonial Sugar Refining Company, an Australian subsidiary, is an outstanding example. The company manufactures and markets all sugar. Its income will have to be combined with many others in order not to reveal the secrets.

The problems involved in the investigation of national accounting in dependent territories are many. But one should not be discouraged. The best thing about a social accounting system, in spite of its inherent difficulties when applied to an emerging economy, is that it takes all sectors and aspects of the national economy into account and it provides in one paper their relative contributions and importance to the national economic activity.

CHAPTER II

CONCEPTUAL AND STRUCTURAL DIFFICULTIES IN NATIONAL ACCOUNTING

The common basic concepts of national accounts are essentially the product of developed and highly monetized economies. A framework using these concepts and capable of meeting the needs of administrators and economists concerned with an economy like Canada is not likely to suit the requirements of a less developed economy like Fiji. The division of income into rent, profits, interest, wages and salaries, for example, a classification which has positive significance for an industrial economy, introduces concepts which are inappropriate to one consisting largely of peasant producers.

In this chapter problems of general concepts are considered in Section 2 after an account of national income studies done so far in Fiji in Section 1. The presence of large subsistence activity in the economy and the methods of its evaluation are discussed in Sections 3 and 4. Subsistence economy necessarily entails substantial unused resources, especially manpower. Section 5 contains some discussion on disguised unemployment.

1. National Income Studies to Date

The great stimulus to national income analysis and national accounting comes out of its utility for purposes of economic analysis and formulation of economic policies. Production, distribution and use of goods and services involve many complex processes and to understand them better an increasing amount of statistical information is being gathered all over the world. As the volume of this information grows there is an increasing need to systematize it by putting together the mass of details into a coherent picture of the structure of the economy.

The efforts to systematically reveal the structure of the economy have taken different forms.[1] One group of investigators concerned themselves mainly with the concept of national income and product and their development into a system of national accounts. Another group studied the interdependence of commodity flows through the construction of input-output tables which display the structure of commodity flows between industries. Yet another group concentrated on tracing the purely financial flows in the economy. Others have interested themselves in estimates of wealth rather than income and expenditure and have

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[1] United Nations, A System of National Accounts and Supporting Tables, New York, 1960, p. 1.

constructed balance sheets for the economy and its various sectors. The basic aim of all of them has been a systematic appraisal of the economy as a whole.

The main impetus to study the economy in its entirety came from the great depression of the 1930's and the problems of economic mobilization and war finance subsequently, for World War II. In the post-war period information was desired to throw light on problems of economic reconstruction and development and, more generally, for assessing economic change as a background for economic decision-making in connection with public policy.[2]

The first attempt to estimate national income of Fiji was by Miss Carleen O'Loughlin, an economic research worker from Australian National University, Canberra. The project was mainly financed by the University, the Fiji Government making a sum available for paper and field expenses and undertaking to publish the report which went by the name of "The Pattern of the Fiji Economy: The National Income 1950-53". Her significant remark about this study is:

> ..... because so little is generally known about the economy of an underdeveloped country, a national income study must in some ways be much wider in scope than a similar study in an older country..... Aspects of the economy, which in a developed country are analysed by other specialist writers, may have to be described in some detail by the colonial national income investigator who is

2 _Ibid._

> treading on new ground. This means that a colonial national income study must be more than a set of statistical tables; it must be something of an economic survey as well.....[3]

Her report therefore is necessarily extensive. Due emphasis was given to agriculture and its components and attempts were made to assess the extent of subsistence activity in all agricultural pursuits. Output method[4] was generally used for agriculture, i.e. estimated acreage of each crop multiplied by the average yield per acre for the year concerned and then multiplied by average prices. No cross checks from the income or consumption side were possible, but she used some ad hoc devices such as export figures, and family budget surveys blown up to the national level. She felt that "in some cases these checks proved to be useful".

The output method was also used for manufacturing, processing, distribution, public and private service industries. "Output figures were obtained....by deducting from 'Revenue from Sale' costs other than payments to factors of production in the industry concerned".[5] However, overlapping between industries made her estimates in this section rather

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[3] C. O'Loughlin, The Pattern of the Fiji Economy: The National Income 1950-53, Suva, Government Press, 1956, p. 13.

[4] See Chapter III, Section 1.

[5] C. O'Loughlin, op. cit., p. 26.

unsatisfactory. Besides, no separate values attributable to some of the more important industries, much as this information would have been desirable, could be published owing to the necessity of respecting business confidence of many resident and non-resident companies especially those that enjoyed monopoly position in an industry.

Broad results of her estimates are shown in Table III. Much can be derived from this study in the way of intertemporal comparison in days to come. But it is rather unfortunate that no further investigations followed her work. The most important gap found by the Burns Commission[6] in formulating its recommendations was the "lack of a continuous series of national income figures." In the opinion of the Commission members "the significance of the investigation by Miss C. O'Loughlin.... was apparently not appreciated". Perhaps a decisive factor for not following up with her attempt was the lack of trained and qualified personnel who could usefully carry out the necessary investigations with only a minimum of guidance from the very few senior officers who understood the significance and importance of national income studies.

The next attempt on Fiji's national income was by the

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6 Report of the Commission of Enquiry into the Natural Resources and Population Trends of the Colony of Fiji, 1959, Suva, Government Press, 1960, p. 130.

TABLE III

NATIONAL INCOME AND EXPENDITURE, 1950-1953 and 1957
(£ F thousands)

	1950	1951	1952	1953	1957
1. Personal Consumption Expenditure	13,540	16,208	17,676	18,264	20,051
2. Gov't. Current Expenditure Goods and Services	1,756	2,149	2,598	2,697	5,992
3. Domestic Investment					
(a) Private	3,272	5,814	4,701	3,022	4,700
(b) Government	492	753	1,049	897	1,399
4. Foreign Investment	107	-2,569	-893	2,432	-968
5. Gross National Expenditure (Gross National Product at Market Prices)	19,167	22,355	25,131	27,312	31,174
6. Less Taxes on Expenditure	2,119	2,354	2,999	2,829	2,482
7. Gross National Income at Factor Cost	17,048	20,001	22,132	24,483	28,692
8. Less Net Income from abroad	845	642	1,103	896	1,828
9. Gross Domestic Product at Factor Cost	17,893	20,643	23,235	25,379	30,520
10. Less Depreciation of Capital	1,173	1,243	1,235	1,264	1,900
11. Net Domestic Product at Factor Cost	16,720	19,400	22,000	24,115	28,620

Sources: 1950-1953 from O'Loughlin's Pattern of the Fiji Economy.
1957 from Burns' Report.

Burns Commission itself. The nature of this estimate is summed up in the following remark: "Our own attempts to continue her (i.e. Miss O'Loughlin's) estimates by providing figures of national income magnitudes for 1957 were felt necessary in order to give a more up-to-date picture of the economic structure, but they are, of necessity, rough estimates."[7]

The Commission employed the "blow-up" technique for some components and informed guesses, after discussions with government officials, for others. It is, however, felt that 1957 gross national product of £31.2 millions is an understatement. The increase over 1953 is only £3.9 millions or 3.53 per cent annually. Empirical evidence, on the other hand, has it that 1957 may have been the peak year in building activities due mainly to the easy credit policies adopted by the commercial banks. Private investment should have been accordingly larger. Perhaps due to the lack of time and resources this fact could not be verified by the Commission staff.

As already indicated, Table III contains the results of national income studies compiled so far. It is also indicative of the economic structure of Fiji. Effects of changes in population and prices are shown in Table IV. The period

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[7] *Ibid.*, p. 130.

TABLE IV

NET NATIONAL INCOME PER CAPITA AT CURRENT AND CONSTANT PRICES
1950-1953, 1957 and 1958

(£ F thousands)

	1950	1951	1952	1953	1957	1958
1. Net Domestic Product at Factor Cost	16,720	19,400	22,000	24,115	28,620	31,318
2. Add Net Income from Abroad	-845	-642	-1,103	-896	-1,828	-1,770
3. Net National Income at Factor Cost (1 + 2)	15,875	18,758	20,879	23,219	26,792	29,548
4. National Income per head of total population £ F	54.93	62.95	68.01	72.25	74.24	78.94
5. National Income per head of total population at constant (1953) prices £ F	66.66	70.17	67.60	72.25	67.55	72.09

Source: Burns' Report, Table B.3, p. 138.
1958 is estimated.

covered is too short to reveal any significant trend movements.

Apart from the two, i.e. Miss O'Loughlin's and Burns Commission's, investigations of national income of Fiji there has been no other efforts in the field. However, references at odd times to some sectors of national income have been common. One very recent such reference was during the Legislative Council debates late in 1961. Speaking on a complaint that the sugar industry was not subsidized, the government spokesman said:

> .... It was only when an industry was failing that a subsidy became necessary. Had (the government) not subsidized the gold mining industry (the government) would have been faced with a vast unemployment problem three or four times as great as the existing problem, and there would have been a loss to the national income of £1,000,000 a year....[8]

The only private effort towards estimating national income in Fiji was a study by Bank of New South Wales of Fiji's balance of payments for 1936.[9] It was an isolated study but provided comparative figures when the balance of payments series was officially initiated since 1950 on a continuing basis. A summary of figures for selected years is given in Table V.

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8 *The Fiji Times* report, 8.12.1961.

9 C. O'Loughlin, *op. cit.*, p. 56.

TABLE V

BALANCE OF PAYMENTS FOR SELECTED YEARS
(£ F thousands)

	1936		1950		1953		1958	
	Receipts	Payments	Receipts	Payments	Receipts	Payments	Receipts	Payments
Current:								
Merchandize	1,740	1,379	7,816	6,312	12,937	9,503	13,956	15,803
Invisibles	200	714	957	2,307	2,607	3,628	4,050	5,968
Total Current	1,940	2,093	8,773	8,619	15,544	13,131	18,006	21,771
Donations	..	..	59	106	144	125	330	482
Capital	211	58	1,199	447	1,255	1,162	317	1,610
Errors & Omissions				859		2,525	5,210	
Total Current & Capital	2,151	2,151	10,031	10,031	16,943	16,943	23,863	23,863

Source: The Pattern of the Fiji Economy, p. 57, for 1936, 1950 and 1953. Commerce and Industries Office estimates for 1958.

(..) indicates "not available".

2. Conceptual Differences

The many concepts in economics suffer from the background in which they have been developed. This is particularly true of concepts used in national income and social accounts. No attempt to construct a logical and meaningful system of social accounts is free from anomalies and obscurities which severely limit the precise quantitative significance of the results. There are two main factors why the primitive economy should raise especially difficult problems for the national income investigator.

The first is that these problems are often different from problems which attend the construction of social accounts in the context of a Western economy. Western countries are old and have had heavily capitalized economies for many years now. This fact creates in them a notion of 'static' in the sense that a predominantly industrialized economic future is assured. This is quite contrary to the underdeveloped countries which are undergoing a process of speedy changes from agricultural, part subsistence economies to the more developed, monetary types.

Secondly, the logical compromises which have to be made in practice, in national accounts concepts, are based on inadequate background of sociological data and are therefore more arbitrary than they would be for an investigator to whom a community's accepted ends of economic and social policy are part of his native background.[10] This follows almost naturally from the first factor. The success of national income estimates in the underdeveloped countries is likely to be influenced by the extent to which these sociological changes can be followed and recorded over time. To date, collection of data has not been for a long enough period in any one place for changes to be noticed and refined studies in concepts accomplished therefrom.

The conceptual problems will continue to be intractable and largely concealed if the accounting framework is made simpler to be adaptable in the primitive economies where statistical and financial resources, organizational facilities, and trained or experienced personnel are limited.

National income is generally implied to mean the income of all the residents of a country. Normally some residents will receive income as a result of economic activity[11] abroad, a very common form of such income being from ownership of property. Some non-residents will also be in receipt of income from the country concerned. In Fiji larger foreign owned business companies are partly or completely owned by shareholders living outside Fiji. They do

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10 P. Deane, Colonial Social Accounting, Cambridge, The University Press, 1953, p. 128.

11 Professor L. Robin's definition of 'economic activity' runs as follows: "...human behaviour which endeavours to dispose off scarce means which have alternative uses in order to satisfy wants of varying importance."

manufacturing (sugar, beer, cigarettes, etc.), retail and wholesale trade, banking and finance, some external transportation, and mining. Profits from these enterprises are in part sent abroad for remuneration of shareholders in the form of dividends. A general tendency, which is clear from Table V, is that Fiji pays more to the non-residents than what its residents receive from abroad.

It is therefore always of profound interest and importance to state whether one is discussing the 'national' income or 'domestic' income or 'resident' income or 'territorial' income. The 'territorial income' concept is not very relevant to Fiji but it certainly is to some other underdeveloped countries, particularly of Africa. The migratory nature of the peoples among adjoining territories "requires a system of accounts covering all the economic activities carried on within the territory's borders or benefiting the territory's nationals."[12] The territorial accounts must contain a complete record of the transaction entered into by all factors of production operating within the territory whether owners are resident or not.

Besides the migratory nature of African peoples, there are significant political factors which require the distinction of 'territorial' income. A metropolitan

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[12] P. Deane, op. cit., p. 227.

European country may have colonial possessions adjacent to each other. Granted the regional political autonomy, there is the tendency towards a "central control" in such matters as defence, tariffs, public corporations, and foreign relations. This inevitably leads to concentration of foreign firms in the 'centre' with branches in other territories. The good example is the East Africa High Commission[13] which has jurisdiction over Kenya, Tanganyika and Uganda. Nairobi, the capital of Kenya, has the head offices of all important public corporations --Railways and Harbours, Airways, Posts and Telegraphs-- and certain private organizations such as banks.[14] On the assumption that some profits are made which accrue to the organization as a whole should these profits be regarded as income paid abroad to a "foreign owned" company in Nairobi and thus be excluded from the national income of Tanganyika? Rising nationalism, if no other economic factors, will require compilation of individual 'territorial' income.

A parallel to territorial income exists in Canada in the form of 'geographical' incomes of the different regions

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[13] This is disintegrating as the three territories are gaining independence, Tanganyika having already attained independent status in February, 1962, and Uganda in March, 1962.

[14] A. T. Peacock and D. G. M. Dosser, The National Income of Tanganyika, 1952-54, London, H.M.S.O., 1958, p. 18.

of the country. But for the want of any serious political consideration this geographical separation is to assess regional economic growth and maintain balance as far as possible, in their development.

The island nature of Fiji, geographically, does not require the distinction between 'territorial' and other conceptual incomes. However, differentiation is required between national 'domestic' and national 'resident' incomes.

Domestic product or income includes all goods and services produced within Fiji even if some of the factors of production involved, as for instance capital, is owned by persons resident outside Fiji. Resident or national income on the other hand includes earnings from overseas accruing to residents but excludes payments made by firms operating in Fiji to residents of other countries. The distinction between these two aggregates can be seen in Table XII.

The practical use of the two aggregates is obvious. Gross domestic product will reveal a true picture of Fiji about the economic productivity of its peoples and other factors of production, the potentialities existing within the country, and above all its dependent status with respect to outside capital. However, from the welfare point of view domestic product can be misleading. In fact, per capita income from this aggregate will tend to show an erroneous picture of income enjoyed by the residents of Fiji. A clearer idea of welfare will appear from the per capita resident income, i.e. after what is not available to Fiji's inhabitants has been taken out of the calculation.

It may be noted briefly that per capita income from total population of Fiji will not be quite representative when different racial groups are considered. Table VI shows the difference in income of the various races in 1953. The £72.25 per person (£78.94 in 1958) is no indication of the welfare or even productivity of the overall population. It only disguises the unequal distribution of income among different races.

Large subsistence income implies lack of time and place utilities for goods produced particularly in agriculture. It is also indicative of the absence of choice element in consumers' demand. A subsistence farmer producing sweet potatoes has no means to substitute other commodity, say rice, in his diet. In fact considerations such as these render international comparisons of per capita income as measures of welfare of academic interest only.

3. The Subsistence Activities

A subsistence economy is one where individuals produce to satisfy their own needs and there is no exchange of goods and services. There is no universal measure which could be used to sum the costs, either in resources consumed

TABLE VI

PER CAPITA INCOME 1953
(£ F)

	Income per Head	
	Cash and Subsistence	Cash Only
Indians	64.2	56.3
Fijians	60.5	30.2
Europeans and Part-Europeans	233.9	233.9
Chinese	151.0	139.5
All Races (including "Others")	72.25	56.50

Source: C. O'Loughlin's Study, op. cit., p. 72.

or in satisfactions foregone, of obtaining a particular satisfaction. Subsistence output, therefore, is used throughout this report to mean output produced for one's own or one's family's use, that is, all output not traded. Since, however, an accounting framework presupposes the use of money subsistence output must be evaluated and included in the aggregates of income, output and expenditure. An aggregate excluding it loses much of its value as an index of total economic activity.

The sources of subsistence output in Fiji can best be described on the basis of racial distribution of population. The Chinese as traders are found in rural areas as well as urban centres. Those living close to city, towns and townships are engaged in market gardening. Some portion of their product they consume themselves. Those having small retail shops in remote areas of the country often act as 'buyers' of native products such as copra, shells, yaqona, mats, etc. in exchange for manufactured goods, both food and non-food items. They sell these to their urban counterparts at some profit. Such incomes and what they grow in the backyards of their shops form the subsistence output of the Chinese.

Since imputed items such as rents of dwellings and interest on capital which one provides himself are not included in subsistence output or income, Europeans and

Part-Europeans are known to have little in the way of subsistence income. Only a few of them do any farming or other allied activities to be engaged to any significant degree in subsistence pursuits. Moreover, the strict business attitude they have in all their pursuits leaves little room for subsistence income.

For the Fijians their mode of living itself is conducive to the existence of large subsistence activities. In rural areas which contain 88.71 per cent of the Fijian population,[15] they live in the secluded villages where there is very little individual ownership of anything. Their staple food, generally root crops of kassava, sweet potatoes, taro, yams, etc., are cultivated on communal basis. Though individuals may be required to tend certain patches of the food gardens the consumption from them can be both individual and communal. Fish from the sea and rivers supply the much needed variety in their otherwise high carbohydrate diet. Fishing may be done individually or communally. Some Fijians are known to be engaged in fishing on commercial basis. Excluding this, only the excess from a good catch after all the communal needs have been satisfied is sold for monetary returns in nearby towns or townships or to the Indians and Chinese in the neighbourhood.

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[15] N. MacArthur, Census of Population of Fiji, 1956, Suva, Government Press, 1958.

Fijian villages have native-type houses, called "bures", made of timber from the forest and thatch. These are built according to the needs of the village as a whole. Sometimes an individual may try to have a separate bure for his family. In all cases, however, the whole village helps in the construction. Cleaning and weeding of the villages are also done by their inhabitants collectively for no monetary return.

Subsistence activities among the Indians too are of significant importance. In sugar cane areas tenancy farming is common. Average holdings are of 10 to 12 acres in size rented from the Sugar Company, from the Crown, and from native land owners. Their homesteads are invariably on their own farms and it is almost universal to the extent that it can be called a custom that an Indian tenant farmer will have, besides his pair of bullocks (or more recently a tractor owned individually or on a co-operative basis) to cultivate his land, a cow for milk for the family, a dozen or so poultry birds at a time for eggs and meat, a few small patches of vegetable gardens in his backyard, up to fifty mounds of kassava or sweet potatoes to supplement his food purchases from retail shops, several clumps of banana plants for fruit and a few coconut trees. This is by no means an exhaustive list and neither does this mean that no vegetable, fruit, or root crops are purchased from the market. In Fiji fruit and vegetable markets are quite common and they play an active part in the lives of almost all communities in the country. However, whatever is produced in and around a homestead never enters a market and there is no monetary transactions over them.

Indians of the sugar cane districts also produce certain amounts of rice, legumes, corn, etc. on their farms from the patches of their holdings that have to be left fallow for a year before replanting sugar cane in them. These, too, do not go to the market or very little of it. Generally they are for home consumption or livestock feed or exchanged in barter form among farmers. Indians from non-sugar cane districts engaged in one principal occupation, e.g. dairying, rice-growing, coconut plantation, do maintain subsistence occupation in their backyards. Thus it can safely be generalized that in the life of Indian farmers subsistence agriculture is important.

In underdeveloped countries women have special roles. Their position is substantially different from 'Western' women. They assist considerably in crop production or other occupation, e.g. dairy farming, coconut gathering, etc., their husbands are engaged in. In the Fijian society they may even have their own food gardens; they weave mats which are for home use and some are even sold; and they sometimes do the selling themselves in the market. In the case of

Indian farm wives they are quite active in helping husbands cultivate crops and attend to other chores around the farm homestead. Cooking, besides those activities, is universal for all women within the household. But in keeping with convention these services of women go unevaluated; perhaps a more true statement would be that they are not separately evaluated.

There is in Fiji nothing of the category of 'bride price' which is common in many parts of Africa where it is a form of payment, in cattle, for a bride in the expectation that she will bear children. This entails the necessity of regarding children as "economic assets", which, although implied, was never adopted in practice by any national income investigator of African territories.

However, with the present status of farm women in Fiji, it still seems "far-fateched to regard wives as separate economic units selling services _to_ the family as distinct from their services as crop producers... _for_ the family."[16] Nevertheless if an economic survey ignored the activities of unpaid dependents as being outside the scope of economics it could not be expected to throw much light on the welfare of the rural population however narrowly defined in terms of material things.

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[16] Peacock and Dosser, _op. cit._, p. 15.

The importance of subsistence activity in economy of Fiji is now obvious. It often seems as if, because governments cannot easily tax the subsistence economy, they are not interested in it although the existence of such an economy on a large scale is important for tax purposes. An example is imperative here:

> The introduction of the cess on Fijian copra in 1952 (although a measure of compulsory saving rather than tax) resulted from the realization that most of the money income earned by Fijians was over and above their basic subsistence needs which were met, mainly, by non-cash production; and that it would be in their own interests for some of this income to be used for community development.[17]

To exclude subsistence income outright from the national accounts will mean a very false account of the economy. Although not entirely suitable for comparison of welfare because of the attendant factors of social system, habits, and ways of thought, subsistence income along with other data can be used at least to say something about the economic condition of individuals in different countries and draw what personal conclusions one likes about comparative welfare.

4. Evaluation of Subsistence Activities

Pure subsistence economy is rare. What is generally found is the semi-subsistence economy, that is where a large

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[17] C. O'Loughlin, *op. cit.*, p. 10.

proportion of wants are satisfied directly by the producer or his family but where barter or money exchange transactions are a potential factor in almost every form of economic activity.[18]

In the semi-subsistence economy 'price' has some meaning even if it is irrelevant to the internal economy of the village. Among Fijians, although still engrossed in the traditional system, there is a certain amount of specialization. Boat building, for instance, is done in coastal villages, more so on smaller islands; pottery making is common where suitable clay is found. There are exchanges in these items. Between inland and coastal villages some exchange of food is prevalent. Whether through barter or "reciprocal giving" they do imply price. In recent times increasing use of money for such exchanges has been resorted to.

It is pertinent to point out the limitations of placing money values to all activities and exchanges in the semi-subsistence economy. Firstly, there is often no money price which bears direct relation to the other money prices in the economy, and also there are often multiple standards of valuation and no fine adjustment of supply and demand. Secondly, money does not have the same power of incentive

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[18] Phyllis Deane, op. cit., p. 122.

in the semi-subsistence economy. Social and psychological considerations frequently outweigh the money factor as determinants of activity. One gift exchanged for another implies a certain price, but the 'price' may change according to the status of the giver amongst other things.

In most colonial national income studies a choice has to be made between two methods of evaluation, viz. market price and ex-farm price. In some advanced countries such as the United Kingdom and Canada, ex-farm prices to value non-marketed produce is used. In colonial territories, however, the use of market prices is more common although ex-farm or growers' prices have also been occasionally used. Miss Carleen O'Loughlin's estimates of Fiji's national income was at growers' price, and it seems this report must follow the same practice to maintain consistency.

Exponents of the market price technique argue that non-marketed production valued thus imply opportunity cost, that is, the most favourable price that can be commanded by a factor, labour in this case, of production in the next best use. Ex-farm price on the other hand usually means that only the costs of growing crops would be used, that is, before any allowance had been made for transport and distribution costs.

Growers' or ex-farm price users have criticised the market price technique. "In Fiji, it is ... unrealistic to evaluate opportunity costs in purely monetary terms as customs, regulations and attitudes of mind which bind labour to village production are not wholly comparable to money incentives."[19] Besides, it is said that evaluation at market price involves cost of distribution and transportation which must necessarily be incorporated in the price of a basket of kassava, bananas, or breadfruit when it is sold in the market. Once again this fact is not entirely relevant in Fiji environment. Native food gardens may be some distance (a mile or so) from the koro or village. It seems logical that some transport and distributive labour is expended when food is carried from the garden to the koro.

Perhaps the chief argument of the advocates of market price technique is that a basket of produce in a market carries with it an element of choice. The consumer, as buyer, is able to choose one out of several baskets obtainable at the same price. Such choice element or place utility may not be inherent in a similar basket of non-marketed produce at the grower's garden where he will of necessity harvest according to his needs, usually one basket at a time. It is doubtful whether this element of choice does carry much value in practice because of customs and traditions. However, it is really a matter of expediency to

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[19] C. O'Loughlin, *op. cit.*, p. 12.

evaluate non-cash production by money prices. To include 'prices' for subtleties and indulge in sophistry in these less developed economies where money is just beginning to play its Western role will rather amount to being caught in the chaff.

5. Subsistence and Disguised Unemployment

This section is an elaboration of a problem inherent in subsistence activity. Subsistence or semi-subsistence economy is where the major part of production is consumed by the producer and the remainder exchanged for other goods of his needs. Economies of this type, often based on a family or tribal system of agriculture, have widespread underemployment or concealed unemployment. This manpower pool may not be counted in the census as unemployed but they can scarcely be called employed. Following the 1956 Census definition[20] of the "unemployed" in Fiji only 0.63 per cent of 15 years and over were unemployed while 13.52 per cent were in subsistence pursuits. However, subsistence workers have shown the general tendency to leave villages for more remunerative jobs in city, towns and townships. It is assumed that this exodus will not cause any decline in the

20 i.e. "...doing no particular work at the time of the census, and were neither retired from some occupation or profession, nor were pensioners, nor inmates of institutions..." Dr. N. MacArthur, op. cit., p. 223.

agricultural output, a fact well borne out in many under-developed economies in transition.[21] But without the exodus per capita income would be at bare existence, and standard of living at subsistence level.

Subsistence pursuits have marginal productivity of labour, i.e. the ability of one additional unit of labour to increase the total product is at or close to zero level. The remuneration of the family or tribal worker is not related to marginal value product, but corresponds roughly to the average production of the group. Actual real wage being at subsistence level, there will be a constant push of excess population out of farm or tribal reserves. Even if there be a sudden increase in productivity there will not be any return of the population, but only consumption will increase. The increase in national product via increase in productivity will therefore not enter the market economy to create additional incomes and effective demand.[22]

What are the causes of concealed unemployment in an

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21 United Nations, Measures for Economic Development in Under-Developed Countries, as quoted by G. M. Meier and R. E. Boldwin in their Economic Development, New York, Wiley, 1959, p. 282. It is asserted that 20 to 25 per cent migration of village adult population will not decrease agricultural output of subsistence kind.

22 G. O. Gutman, "A Note on Economic Development with Subsistence Agriculture", Oxford Economic Papers, Vol. 9, No. 3, October 1957, p. 323.

underdeveloped economy like Fiji? In the case of Fijians, customs and traditional laws bind people to the koro and its needs. Organization of labour and even land use may be under the jurisdiction of the chief and village elders. Village duties have priority over individual's own enterprise. However, with the spread of literacy and more individualistic attitude among the younger generations who try to take up cash crop cultivation there has inevitably been conflict of interests. To overcome this, exemption from village duties may be granted by the chiefs if the exempted person paid a fee. Exemptions are of three categories: (a) to work away for wages, (b) to farm their land for cash income, and (c) to perform some specialized work for the village such as cultivating rice or driving a tractor, or to work in a village cash enterprise. In all cases, the very idea of a fee or a 'tax' is a good deterrent against people leaving the village although it must be admitted that since the war the number of Fijians leaving villages for jobs with cash income has been growing.

Among the Indians surplus population exists mainly in the sugar cane areas. Hitherto, sugar cane cultivation to which Indians were first introduced appealed to them more than any other cash crop. This was because of the ready market for sugar cane within the country: the Colonial Sugar

Refining Company manufactured sugar from the raw cane grown by the Indians.

Sugar cane cultivation is done on tenant farming system, each tenant and his family of wife and children having an average of 10 to 12 acres. There are 12,500 such tenancies at present. This system was initiated in the 1920's and proved very successful. Since its inception the acreage holdings have not and could not be revised. Besides, little new land became available to Indians (and other races) because of Fijians' reluctance to alienate land. Even some land which once the Indians cultivated were taken into Fijian reserves for Fijian farmers. With the population growing at a high rate, as is customary in rural societies, the pressure on the 10-acre tenancies grew. In 1959, the Burns Commission found up to four families in one tenancy. An average 10-acre piece of land, which was designed to provide adequately for one family only, now has one and a half families,[23] according to a more conservative estimate. This extra half a family (an average family unit in Fiji among Indians consists of 5.1 persons) is the surplus population which must be supported and maintained.

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[23] Colonial Sugar Refining Co.'s submission to Eve Commission, reported in The Fiji Times, March 4, 1961.

Surplus farm population was also created by the advent of farm tractors since World War II. In fact this is one example where laissez faire is not always advantageous to the underdeveloped countries. Overseas trading firms, with high pressured salesmanship, introduced tractors to the Fiji countryside. Neither the size of the farms nor the existence of sons and their families, i.e. surplus hands, was conducive to the introduction of tractors. Farmers responded cautiously but favourably in the beginning to advertisements for tractors but soon emulation had its sway and tractor craze caught on to aggravate surplus farm population situation.

Whereas the farmer before the advent of tractors could easily find himself occupied almost all the year around on his farm with a pair of oxen or other draught animals, he is now able to do the same work in less than a third of the time and spend the rest in idleness both for himself and his machine. This is an extreme case of social and economic waste. It is doubtful whether the increase in productivity of farmers will, in the long run, be in a position to maintain this standard of living if the surplus population is not drained off the farms.

On what terms will the surplus labour in agriculture be prepared to accept employment? W. A. Lewis[24] is of the

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24 As quoted by W.J. Barber in "Disguised Unemployment in Underdeveloped Economies, in the issues of <u>Oxford Economic Papers</u>, Vol. 13, Feb. 1961, p. 103.

opinion that real wages must exceed the average subsistence production by an incentive margin. Or alternatively, the indigenous male will accept wage employment when it serves to maximize the real income of his family group. For these criteria to function, Lewis assumed two components in an underdeveloped economy: (a) capitalist sector, i.e. that part of the economy which uses reproducible capital and pays the owners of capital for the use thereof; and (b) subsistence sector, the traditional economic activities of the indigenous peoples whose production is concentrated in agriculture. The two are brought together in the production process when the capitalist sector, generally of outside capital, skill and entrepreneurship, combines the capital it provides with labour obtained from the indigenous economy.

A dualistic description like the above is quite relevant to Fiji. The non-resident capitalist sector, almost exclusively engaged in the industries of mining, manufacturing, larger wholesale, retail, and other distributive trade, and the 'local' capitalists engaged in inland transportation and general building construction, employ large bodies of indigenous (Fijians from village and surplus Indians from farms) labour. The combined real income of the many families is thus drawn from production within the subsistence economy and from wage earnings in the capitalist economy by its adult male members.

When allocating[25] his labour time, the adult male must weigh the gains in real income from one source against the possible loss of real income which might follow in the other. When 'periodic' disguised unemployment[26] exists, temporary wage employment by the adult male does not reduce the agricultural output of the family. The additional income obtainable from money wages earned by the absent member is a net gain for the family. In these circumstances a low real wage may succeed in attracting workers into the labour force required by the capitalist economy. This is true in Fiji economy especially when the sugar cane harvesting season is over.

But should the employers wish to draw off manpower beyond the limits of 'periodic' disguised unemployment, then the adult male would accept wage employment only on much improved terms -- in fact only on terms which would more than compensate for the loss in real income which his absence from the subsistence economy would entail.

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25 William J. Barber, op. cit.

26 Opposed to this is the 'general' disguised unemployment, i.e. when the indigenous population grows to the point that it can no longer be absorbed on the land without a reduction in the conventional level of family output. At this point 'general' disguised unemployment submerges 'period' disguised unemployment. Ibid.

To conclude, 'full employment' concept is difficult to define in underdeveloped economies because labour force is not easily ascertainable. On the one hand traditions and customs bind people to the village economy and their exodus to paid employment in urban centres may not readily come about. On the other hand, treatment of women of working age is problematic. On the merit that they are potential sources of help in subsistence activities should they be included in the labour force? These women in developing countries are known to be taking up paid employment in increasing numbers besides their household duties, while at the same time religious rites and other taboos prevent some women from taking up any employment outside their homes.

These considerations do not allow a statistical definition of full employment in emerging economies. A reasonable level of employment only will have some meaning and this is when those willing and able to work are employed.

CHAPTER III

THE FRAMEWORK OF NATIONAL ACCOUNTS

It is important to realize that a framework of national income and social accounts in its characteristic details suitable to industrialized, developed economies may be less adaptable in emerging countries especially where statistical information is scanty and no immediate improvement foreseeable. It is also important to realize, however, that a framework latent with crosschecks is expected to yield more reliable estimates than one without them. No hard and fast rule can be laid; much will depend on the exigencies and resources in the country under study.

In this chapter Richard Stone's triple-entry system is considered in Section 1. In Section 2, the modern two-way, balancing income-expenditure framework, which enjoys United Nations sanction, is described. The principles involved in organizing national accounts appear in Section 3. Section 4 describes the uses, in general, of national accounts to an economy.

1. The Income-Output-Expenditure Flows

National income has been variously defined by many writers on the subject and these definitions have of necessity caused confusions to different degrees. However, the construction[1] of balance sheets of national income and expenditure clears up some of the problems of definitions and provides a powerful statistical instrument for the cross-checking of various methods of estimating national income.

There are two further purposes of great significance served by these tables of income and expenditure:

(a) They make it possible for the statistician to provide estimates of national income and expenditure in the form which is most useful to the economist for elucidating many economic problems.

(b) If this form of tables is generally adopted internationally, comparisons of national incomes will greatly be facilitated.

The form of the three-way Income-Output-Expenditure table, designed to provide a maximum amount of cross-checking, was first advocated by J. E. Meade and Richard Stone[2] in 1941. Its framework, given in Table VII, is simple enough for common understanding.

The three columns of Table VII are elaborated further as follows:

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1 J. E. Meade and Richard Stone, "The Construction of Tables of National Income, Expenditure, Saving and Investment" in The Economic Journal, Vol. 51, Nos. 202-203, June-September, 1941, p. 216-233.

2 Ibid.

TABLE VII *

THE INCOME-OUTPUT-EXPENDITURE FLOWS

Net National Income	At Factor Cost Net National Output	Net National Expenditure
1. Wages	Net Output of	15. Personal consumption at Market price
2. Salaries	6. Agriculture	16. Current Government Expenditure on Goods and Services
3. Interest and Profits	7. Mining	17. Government subsidies
4. Rent	8. Manufacturing	18. *Less* Indirect Taxes
	9. Transport	19. Home Investment
	10. Distribution	(a) Gross Home Investment in Fixed Capital
	11. Net value of personal services	(b) *Less* Depreciation, Renewals, Repairs, etc.
	12. Net value of government services	(c) Home Investment in stocks
	13. Net income from abroad	(d) Costs involved in transfer of property
		20. Foreign Investment
5. Total N.N.Income	14. Total N.N. Output	21. Total N.N. Expenditure

Source: *The Economic Journal*, op. cit.

Col. (i) Net National Income at Factor Cost measures the money value of the income produced by, and accruing to, the various factors of production in any period of time, e.g. the rent of land, profits of business enterprises, interest on capital and the earnings of labour.

Col. (ii) Net National Output at Factor Cost measures the value added to the production in various branches of economic activity.

Col. (iii) Net National Expenditure at Factor Cost measures the amount of net national income (or output) which is used for various purposes, e.g. for personal consumption, for current government purposes and for additions to the community's capital.

In countries like the United Kingdom, where there is adequate and comprehensive statistical information, Column (i) would be estimated principally from the income tax statistics, and from statistics of the number of workers in employment and their average earnings. Estimates for Column (ii) would be based primarily on the Census-of-Production method of estimating the net value added in various industries together with other supplementary information in such items as the net income from foreign investment. Statistical estimates of Column (iii) would be obtained from public finance data (for items 16, 17 and 18), from a large number of different quantity and price series (for items 15 and 19) and from figures of foreign trade and other foreign transactions (for item 20).

The net output of an industry is definable as the sum of wages, salaries, profits, interest and rents earned by the factors of production engaged in it. On this basis Column (ii) is essentially a rearrangement, by industries, of the information contained in Column (i). Column (iii) shows the laying out of incomes earned in Column (i). Therefore, each of the three columns must offer identical results when fully compiled.

Many national income investigators of colonial and dependent territories have favoured this framework. Miss Phyllis Deane's[3] significant remark is:

> This fundamental table is a source for all other income and expenditure tables which might be drawn up for the economy....Indeed, the process of constructing the fundamental table involves the construction of all the smaller balancing accounts of which it is made. In this way the inevitable discrepancies between the estimates for total incomes in the first place, total output in the second and total expenditure in the third are not dealt with residually in the final consolidated table but are traced to their sources in the constituent sectors of the economy ...

Improvements with respect to coverage or reliability in the data of certain entries cause, as a result of this

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[3] P. Deane, Colonial Social Accounting, Cambridge, The University Press, 1953, p. 14.

articulated three-way flow system, a consequent chain of improvements in other entries. Cross-checks effectively reduce chances of any serious distortion of truth. The more varied the data available in the economy the better the chances are for constructing each column separately on the basis of independent series of estimates.

If the three independent estimates as required in Table VII have been achieved and happen not to be identical, an unweighted mean of the three should offer the best estimate.[4] On the other hand, one of the three estimates may appear particularly good because basic data for it were more reliable than for the other two. It would therefore be reasonable to assign better weight to this one in arriving at the average value of the three essentially identical aggregates.

Some colonial national income investigators do not hesitate to admit that this three-way framework in practice amounts to estimating national income by any one approach only and balancing off others from what ever scanty data available to them. "Generally speaking, the main problem... is the impossibility of making independent estimates from the income and product side..."[5] In underdeveloped countries

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4 R. Stone, D.G. Champernowne, J.E. Meade, "The Precision of National Income Estimates" in Review of Economic Studies, Vol. 9, No. 2, Summer 1942, p. 111.

5 A.T. Peacock and D.G.M. Dosser, The National Income of Tanganyika, 1952-54, London, H.M.S.O., 1958.

therefore the product approach is generally used. Better information on agricultural production may come from the requirements of the territory's agricultural policy; the Customs Department provide import and export figures which may yield information on the gross value of other products; the government itself may be an important producer particularly as operator of public utilities.

The concentration on one flow of the framework probably is a natural outcome of experiences in countries like the United Kingdom where Stone's three-way framework was designed and tested. In the United Kingdom "the quality of the income data is incomparably better than the case for output information or expenditure material";[6] therefore the income approach is used.

Needless to say crosschecks become less effective and dangers of distortion greater when only one column is definitely reliable. To overcome these difficulties Stone later suggested the two-way framework. All former basic characteristics were retained and the idea of accounting as used by business firms was incorporated. The result has been the balancing income-expenditure account for the economy as a whole.

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[6] P. Deane, op. cit., p. 14-15.

2. The Balancing Income-Expenditure Account

National or social accounts provide a systematic description of the operation of the economy of a nation by bringing together in a comprehensive and interrelated system a vast array of economic statistics.[7] They describe, when presented in the familiar balancing income-expenditure framework, the total economic activity in terms of transactions which take place between different parts of the economy as well as a means of estimating the nation's output.

In this balancing income-expenditure form national accounts are similar to the accounts of a business enterprise in the sense that each set of accounts describe the operation of an economic unit during a period of time. The only difference is that business enterprises are individual units of all sizes and a vast number of such separate units comprise the business sector of a nation, whereas the nation with its individuals, business enterprises and government is viewed as one single unit. National account therefore is the aggregate of accounts of individuals, businesses and the government.

The impetus to the present form of national accounts came from the desire to provide a framework that described

[7] Dominion Bureau of Statistics, National Accounts, Income and Expenditure 1926-1956, Ottawa, Queen's Printer, 1958, p. 103.

the economic system in its entirety. Such a need arose out of the experiences of the great depression of the 1930's, the economic problems generated by World War II, and the problems of post-war changeover from war to peace economy. This atmosphere had compelled the economists and statisticians as much as administrators and politicians to improve and enlarge upon the theoretical framework to which they were hitherto accustomed. In so doing they had to strengthen and systematize the collection of quantitative data. All this was intended to provide a better insight into the working of a nation's economic system and thereby formulate policies for future. The post-depression years, and indeed post-World War II years, no longer allowed governments the passive role of merely maintaining law and order, and administering justice but actually required them to actively lead in the economic developments. This could best be done only after a comprehensive assessment of their economies.

The construction of a set of balancing accounts entails the measurement, by two largely independent methods, of the value of output and provides statistics on the size, composition, and distribution of the nation's production. In essence the system means that

> .... every transaction will be recorded twice: at the receiving and at the paying end... Each single transaction between each single accounting entity is separately recorded. Such an amount

> of detail would be quite unmanageable and means must be found of reducing its bulk. Evidently this can be done in two ways: first, by combining accounting entities and, second, by combining transactions.[8]

The skeleton framework of social accounts is given in Table VIII. From the original three-way system income and output flows are manipulated on the Income side to give Gross National Product aggregate.

Gross National Product at Market Prices can be arrived at, conceptually, by[9] three methods of measurements:

(a) summing final purchases by residents plus exports, plus the value of the physical change in business inventories, less imports;

(b) summing factor incomes plus capital consumption allowances, plus indirect taxes, less subsidies; and

(c) summing values added by industries and adding indirect taxes less subsidies.

Owing to the difficulties of obtaining reliable statistics for method (c) even in a country like Canada,

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[8] United Nations Measurement of National Income and the Construction of Social Accounts, Geneva, 1947. The Committee's description of social accounting appears on p.7, and Richard Stone's "Definition and Measurement of the National Income and Related Totals" as an Appendix in p. 21-113 of this publication.

[9] Dominion Bureau of Statistics, National Accounts: Income and Expenditure, 1926-1956, Ottawa, Queen's Printer, 1958, p. 110.

TABLE VIII

NATIONAL ACCOUNTS: INCOME AND EXPENDITURE

Income	Expenditure
1. Wages, Salaries, Allowances and Supplementary Labour Income	1. Personal Expenditure on Consumer Goods and Services
2. Corporation Profits before Taxes	2. Government Expenditure on Goods and Services:
3. Rent, Interest and Miscellaneous Investment Income	3. Current Expenditure
4. Accrued Net Farm Income from Farm Production (a) Cash Income (b) Non-cash Income	4. Gross Fixed Capital Formation
5. Net Income of Non-Farm Unincorporated Business	5. Business Gross Fixed Capital Formation: 6. New Residential Construction 7. Non-Residential Construction and Machinery and Equipment
6. Inventory Valuation Adjustment	8. Value of Physical Change in Inventories
7. Net National Income at Factor Cost	9. Exports of Goods and Services
8. Indirect Taxes less Subsidies	10. Deduct: Imports of Goods and Services
9. Depreciation Allowances	11. Residual Error of Estimate
10. Residual Error of Estimate	
11. Gross National Product at Market Prices	12. Gross National Expenditure at Market Prices

Source: Dominion Bureau of Statistics, National Accounts: Income and Expenditure, 1926-1956.

only methods (a) and (b) are used.

Estimate of Gross National Product through expenditure data[10] means: Add together all personal expenditure on consumer goods and services, plus government expenditure on goods and services, plus exports of goods and services, plus business expenditure on gross fixed capital formation, plus the value of the physical change in the inventories of business. If an item of expenditure be on goods produced in earlier periods, business inventories must then be reduced so that only the value of goods produced in the current period is taken into account. From this total, however, the imports of goods and services must be subtracted.

The two aggregates, Gross National Product and Gross National Expenditure, must always be equal due to the balancing nature of this framework. In practice they are rarely so. Some difference will exist which reflects imperfections in basic data or in estimating methods. Traditionally, incomes, the main component on the product side, have a bias[11] to be understated or under-reported rather than overstated while on the expenditure side one of the chief problems is the avoidance of duplication in summing components of final expenditure.

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10 *Ibid.*, p. 107.

11 *Ibid.*, p. 170-171.

However, to maintain conceptually identical totals also equal in practice the following method is adopted: One-half of the difference between the independently calculated aggregates of Gross National Product and Gross National Expenditure is added to the smaller aggregate and the other half is subtracted from the larger. This averaging process is considered preferable to showing the entire amount of the difference on one side. This latter practice, if adopted in less developed economies with poor statistical resources, can result in rather inflated aggregates with a large residual error of estimate on one side of the account.

In the case of Fiji, the last investigation by Miss C. O'Loughlin followed the three-way flow principle. But in this report the aim has been to develop the application of the modern national accounting technique. As expected the success is only partial primarily because of the absence of elaborate statistical data on the workings of the Fiji economy. However, with this framework and the initial spade-work future investigations in national accounting can be simpler. The whole operations of the new statistical office of Fiji which is in the process of being organized at the moment must be designed such that the central aim would be economic data for national accounts.

3. Principles in the Organization of National Accounts

The organization of statistics for social accounting analysis involves certain principles. They are important in guiding the operations of government's statistics bureau and may be outlined as follows:[12]

(a) Statistical Framework: The guiding principles for assembling data into distinct aggregates are taken from economic theory and on the basis of this theory statistical framework is prepared so as to have a clear cut idea about what totals are needed in what details. One such principle is to group data into separate economic units which have fairly homogeneous intentions of making economic decisions (e.g. consumers). The second guiding principle is to separate different kinds of transactions such as wages from profits, transfer payments from payments for services rendered, direct taxes from indirect taxes, and so on.

(b) The Use of Accounting Statements: All theoretical concepts must be in measurable terms and follow broadly actual business usage - such as investment, depreciation and profits. This is done by choice because it is useful for many purposes to work with a summary for the whole economy

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[12] Simon Goldberg, "The Development of National Accounts in Canada" in Canadian Journal of Economics and Political Science, Vol. 15, February, 1949, p. 36-37. The three following paragraphs contain principles expounded by S. Goldberg.

of accounting statements which may actually influence the decisions of individual firms and other units. It is also done by necessity because available statistical records are limited, to a large extent, to the result of conventional accounting practice. Numerous adjustments to approximate to some theoretical ideal may not be feasible, or if feasible, may produce dubious results.

(c) Simplification and Consistency: National accounts are capable of reducing essentially complex phenomena into comparatively simple entities within the comprehension of the layman. The system inevitably becomes complex as more details are provided and new sums developed. The statistician who must face such contingency must also be able to maintain consistency between different parts. The user must be able to interpret the results and relate the different totals to each other. A scheme is therefore necessary to facilitate both preparation and use. This scheme is provided by accountancy. The logic and forms of presentation in business accounting is carried over to the economy as a whole.

(d) National and International Comparability: National comparability over time is best provided by maintaining consistency. Concepts cannot be changed every year or according to the availability of additional or sophisticated data.

International comparability, which will be discussed in the following section, is useful and its importance is growing. The special characteristics of a country have to be considered and, if significant, accorded special treatment, e.g. the subsistence activity in the economy of Fiji.

(e) Quality of Estimates: The responsibility of national accounting statistician is to ensure that the data reflect, and not distort, reality. At the same time he must avoid being perfectionist and be able to say when to stop in the process of perfection. The perfectionist attitude is common in the less developed countries. Perfect statistical data are emphasized so much that often the object of the investigation is accorded only secondary importance. Such attitude has been common in Fiji too in spite of the limited number of skilled statisticians who looked after the statistical needs of the country.

(f) Timing of Reports: Information should not be withheld merely because it is approximate. Revised estimates could come later but approximate figures should be presented when needed. If the information is useful and believed to be reasonably correct, it should be published if there is no chance of better data becoming available in near future. Had this attitude prevailed from the beginning Fiji would today have far more economic information. Instead in the wake of uncompromising perfectionism individual and private initiatives were neglected as unacceptable.

(g) Orders of Priority: With a very definite limit to the numbers of economists and statisticians who might be employed on national accounting work, a limit which is sooner reached in emerging countries than in industrialized countries, the orders of priority must be decided upon. It might, for example, be decided to concentrate on arriving at some ad hoc figures for national income for a number of years while on the other hand it might be decided to concentrate on a limited survey of well-documented industries and their interdependence and blow up national aggregates therefrom.

Some controversy was current in the early 1950's among British economists engaged in colonial national accounting about the order of priority of different forms of presentation. One economist[13] strongly advocated the development of sector accounts rather than aggregates since some sectors are bound to have more reliable statistics collected as by-products of the administrative process, and colonial policy decisions are best served by concentrating on

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[13] Dudley Seers, in his article "The Role of National Income Estimates in the Statistical Policy of an Under-developed Country" in Review of Economic Studies 1952-53, Vol. 20(3), No. 53, p. 159.

reliable data rather than on not so reliable aggregates arising out of, among other things, the evaluation of subsistence output. This idea was contradicted by another economist[14] who maintained that the policy objectives of developing countries demand much more than a detailed partial analysis of economic activity. The use of national accounts in the future statistical policy of Fiji will be dealt with in detail in Chapter VI, Section 1. However, suffice it to say here that there is more merit in the latter view of developing aggregates, through ad hoc methods of estimation if necessary, for an economy like Fiji than developing partial analysis and perhaps input-output tables for some sectors only. With the present statistical resources a input-output table for Fiji will have a large number of "boxes" unfilled.

(h) Central Agency: Finally, more in the way of practical necessity than mere principle, the preparation of economic statistics for national accounts is best done, as experiences in many countries have shown, in a permanent government agency: a bureau or a department set up for that purpose.[15] Several reasons exist for this view:

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[14] A. R. Prest in his "Comment" to the article of D. Seers, op. cit., in Review of Economic Studies 1953-54, Vol. 21(3), No. 56, p. 223.

[15] J. B. D. Derksen in his paper "Organization Problems in National Income Statistics" to Inter-American Seminar on National Income at Santiago, Chile, January 5-17, 1953, p. 4.

(i) The compilation of national income estimates is a highly technical job requiring specialized training and experience.

(ii) As available basic statistics cannot provide a complete picture of the economy, methods of valuation must constantly be improved, the basis of estimates enlarged, new statistical inquiries initiated, and available estimates revised.

(iii) Once the work has started there is likely to develop a rapidly increasing and continuous demand for information from various governments and the public, including the preparation of technical reports and special compilations.

(iv) Since the estimates are likely to be used in connection with important issues of economic policy, objectivity in the preparation of the estimates and high professional standards are a necessity.

Perhaps Fiji's new statistical office would do well to note these principles.

4. Purpose of National Accounts

The twentieth century has seen the great increase in the accepted responsibilities of government to the economy of a country. The structure, direction and the rate of development are subject to government control, whether through direct intervention, or through its influence on private enterprise, or indeed through its failure to exert any influence.[16] In Western economies, economic crises, wars and experiences of wartime controls have accelerated the role and responsibilities of the governments. In the emerging countries, on the other hand, the dire lack of capital, skill and entrepreneurship within have placed on the governments not only the responsibility to feed the people but also to formulate economic policies for development so that a reasonable level of living standard is maintained. Greater direction and control have become the inevitable responsibilities of the government. Laissez faire is never the best economic system for the less developed nations striving to attain some degree of self reliance.

Governments of old and new nations, which possess some national accounts statistics have found that this information has numerous applications in the field of economic decision-making. For economic public policy they provide basic background information on the state of the economy and the structural system within which specific proposals can be examined and tested for consistency. Implementation of sound fiscal and monetary policies are facilitated so that inflationary or deflationary pressures are

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[16] P. Deane, op. cit.

avoided, while maintaining high level of employment. The magnitude and relationship of consumer expenditure component becomes discernable and its importance in the economy easily assessed. National accounts data are also used for forecasting, e.g. private and public investments. Such forecasts cause chain reactions in that the allied industries gear up to the expected growth in demand for goods and services. But perhaps the most important use of national accounts is in the presentation of a national budget which necessarily has the nation's aggregate economic activity as the background as well as the goal for coming years.

For the business community the national accounts framework provides a set of tools for appraising the course of economic events. Total future market is assessed in relation to the existing sales. Consumers with limited amount of money have alternative uses, i.e. to purchase a house or a car. Sales promotions by the business community may be able to influence and 'help' consumers to decide on what to spend their income. Business investment will therefore largely be dependent on the market analysis. And in all cases the important function of decision making with respect to prices, volume of production, expansion and industrial loans will largely be influenced by consumer spending and its analysis.

Labour leaders generally base wage negotiations on national income data after careful study of the growth of industries, and particularly the growth of corporate income sector. On that basis they may indirectly propose policies to promote labour betterment in general.

Farmers as a group are interested in national accounts. Their relative income is assessed and should it be low floor prices or subsidies are demanded. They are also interested in comparing prices received for their products with prices paid by them for their purchases, i.e. their real income. Stability of income over a period of time is their aim.

Social workers, to be realistic, must have a good knowledge of national accounts. The question of social security with its scale and rate will be omnipresent. The implications of social security benefits,- i.e. increasing the burden on working age population, redistribution of income, effects on incentive, attitude towards efficiency arising out of better health, education and peace of mind - will all have to be considered.

In the general field of education national accounts provide a convenient framework within which economic questions of public concern are considered in their quantitative aspects by professional economists, university professors and students. The habit of looking at economic problems in quantitative terms and in relation to overall size of the economy is widespread. Here therefore the increasing use of the empirical framework represented by national accounts as a method of teaching economics is quite common.

The use of national accounts by many other groups of individuals such as the public at large, the press, the international organizations is growing every day. Comparison of respective welfare of peoples around the world in many countries, developed and less developed, and the assessment of aid requirements of the less developed by the developed are all done through national income and accounts.

All the various uses of national accounts described above have equal application in developed or underdeveloped economies. That the emerging countries apparently have had less vigorous use of the data in the past was probably due to the nonexistence of such information. Their economic development therefore has been slower, erratic and uneven. But as days pass it is becoming evident that these emerging nations are being caught in the stream of progress and in many cases are compelled to direct their attention to compiling national accounts to help them seek aid from richer countries.

Perhaps this chapter may be concluded with a note on the effectiveness of international comparisons of per capita national income. Firstly, such comparison is vitiated by the fact that the different money totals represent different amounts of goods and services, both over national boundaries and over time. £1 in Fiji is worth far more than its equivalent, $2.65, in Canada because £1 commands more goods and services in Fiji than $2.65 in Canada.

Secondly, income per head affords only a very rough measure of relative welfare. Little clothes and slender building structures among, say, African population are no evidence of lack of protection for body against elements compared with the relatively elaborate dress and housing of a Western economy. "Lower income, therefore, is not conclusive evidence of a lower standard of living; put in another way, a comparable definition of standards of living measured in terms of income implies a valuation of the services of nature such as sunlight."[17]

Thirdly, the variations in statistical procedures in different countries render international comparison rather hazardous. Although the efforts of the United Nations have been to standardize the system of national accounting some countries still persist in their accustomed methods. For instance, though only the net foreign balance is shown in the tables of gross national expenditure by some countries, both exports and imports are shown in the Canadian table. Also, in advanced countries, experts handle the task of national income estimates whereas in the emerging countries

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[17] A. T. Peacock et al, op. cit., p. 48.

the job is done largely by inexperienced personnel, amateur in their outlook and approach. This in itself is good enough to make comparison between countries rather dubious.

Finally the presence of subsistence component in income varies between countries or between racial groups within the same country. Table VI is illustrative of this point.

Thus international comparison in income is best done after background knowledge of the consistency in methods and the structure of the economies concerned has been assimilated.

CHAPTER IV

TABLES AND COMMENTS

Attention must be drawn to the fact that owing to statistical deficiencies figures used to illustrate the framework of national accounts in this chapter are estimates. Some, like the central government revenue and expenditure, are accurate. A few are mere guesses. Most of the others are the result of a logical sifting of incomplete, uncoordinated details of evidence.

The deficiency of the statistical method used is also to be noted. The "blow-up" technique is generally employed, the base for which is the 1953 estimates previously referred to. The interval between the two periods, i.e. 1953 to 1958, is too short for any major structural changes in the economy. This, however, can be an understatement for an emerging country whose rate of growth is dependent not only on internal but also on external factors. Unprecedented high prices for its exports or a sudden large inflow of foreign capital leading to greater employment opportunities can substantially alter the attitude of people towards work and leisure, expenditure pattern of their income particularly with respect to consumer durables, and their notion of savings and thrift. Thus the "blow-up" technique is not entirely adequate.

Other short-cut methods were also used in making estimates of some components where there was the least fear of misrepresentation. Refinements are possible to a considerable degree.

In Section 1 of this chapter the main tables are drawn. They form merely the skeleton framework. Other tables such as investment income appropriation, national savings and sector accounts consolidation may be added as statistical data develop into necessary refinements.

Some components of the given tables, wherever deemed necessary, are explained and statistically defined in Section 2. They are made to appear meaningful in their context. Section 3 contains an analysis and appraisal of the economy of Fiji based on the data contained in the framework. Of necessity this cannot be a full analysis; only the highlights are considered from the viewpoint of time, structure and consistency.

1. Tabular Framework

Tables IX to XVIII given in this section form the framework within which it is proposed that the future national accounts of Fiji should develop. A simple but logical framework such as this has reasonable chances of being successfully implemented; one with too many details will necessarily be confusing. Besides, the available economic information or resources of skilled personnel may not justify its immediate implementation.

In the tables "n.a." implies statistical information is not available. Figures (and letters) following the description of items indicate cross-references. Sums in the accounts column within parenthesis are included in their respective sub-totals.

TABLE IX

NATIONAL INCOME AND GROSS NATIONAL PRODUCT, 1958

No.		£ 000
1	Wages, Salaries, Allowances and Supplementary Labour Income 39	10,773
2	Corporation Profits before Taxes	834
3	Rent, Interest and Miscellaneous Investment Income	105[a]
4	Accrued Agriculture Income from Agricultural Production	
	a. Cash Income 40	3,777[b]
	b. Non-cash Income 44	6,489
5	Net Income of (Non-Agricultural) Unincorporated Business 41	7,470
6	Inventory Valuation Adjustments 67[c]	100[c]
7	Net National Income at Factor Cost	29,548
8	Indirect Taxes Less Subsidies 53-60	2,575
9	Depreciation Allowances	1,873
10	Residual Error of Estimates	635
11	Gross National Product at Market Prices	34,631

Source: Tables XXXIV and XXXV.

a. This is only the imputed rent of government property.

b. Contains cash income of Fijians only; income from agriculture for other groups are included in other items.

c. This is an arbitrary estimate.

TABLE X

GROSS NATIONAL EXPENDITURE, 1958

No.		£ 000
12	Personal Expenditure on Consumer Goods and Services 31	23,417
13	Government Expenditure on Goods and Services	7,167
14	Current Expenditure	(4,736)
15	Gross Fixed Capital Formation	(2,431)
16	Business Gross Fixed Capital Formation	9,099*
17	New Residential Construction 63 ci	(n.a.)
18	Non-Residential Construction and Machinery and Equipment 63 cii	(n.a.)
19	Value of Physical Changes in Inventories 63d	-500**
20	Exports of Goods and Services 79	18,336
21	Deduct: Imports of Goods and Services 75-76	-22,253
22	Residual Error of Estimates	-635
23	Gross National Expenditure at Market Prices	34,631

Source: Tables XVII and XXXVI.

* Estimated residually
** Arbitrary estimate

TABLE XI

NET NATIONAL INCOME AT FACTOR COST, PERSONAL INCOME AND DISPOSABLE INCOME, 1958

No.		£ 000
24	Net National Income at Factor Cost 7	29,548
25	Add: Transfer Payments	582
26	Add: Interest on Public Debt 59a	170
27	Deduct: Earnings Not Paid Out to Persons	n.a.
28	Equals: Personal Income	30,300
29	Deduct: Personal Direct Taxes	-1,799
30	Equals: Personal Disposable Income	28,501
31	Deduct: Personal Expenditure on Consumer Goods and Services 12	-23,417
32	Equals: Personal Net Savings 48	5,084

Source: Tables IX, XXXV and XXXVI

TABLE XII

GROSS DOMESTIC PRODUCT AT FACTOR COST FROM GROSS NATIONAL PRODUCT AT MARKET PRICES, 1958

No.		£ 000
33	Gross National Product at Market Prices 11	34,631
34	Deduct: Residual Error of Estimate 10	-635
35	Indirect Taxes less Subsidies 8	-2,575
36	Income Received from Non-Residents	-330
37	Add: Income Paid to Non-Residents	2,100
38	Gross Domestic Product at Factor Cost	33,191

Source: Tables IX, XVII and XXXV

TABLE XIII

PERSONAL INCOME AND EXPENDITURE ACCOUNT, 1958

No.	Income	£ 000	No.	Expenditure	£ 000
39	Wages, Salaries and Supplementary labour income 1	10,773	46	Personal Direct Taxes:	
	a. From business 67a	(4,500)		a. Income Taxes 51a	561
	b. From Government 58b	(2,369)		b. Succession duties 51b	51
	c. From persons 47b	(3,949)		c. Miscellaneous 51c	1,018
	d. Deduct employer and employees contribution to social insurance and Government pension funds 55	(-45)	47	Purchases of goods and services:	15,382
				a. From business 63a	n.a.
40	Net income of agricultural and allied workers 67c	3,777		b. Direct services 39b	n.a.
				c. Travel expenditure 73a	(955)
41	Net income of non-agricultural unincorporated business 67d	7,470		d. Other expenditures abroad 73b	(1,329)
			48	Personal net savings 32	5,084
42	Interest, dividends and net rental income of persons	30	49	Subsistence consumption 4b	6,489
43	Transfer payments (excluding interest):				
	a. From governments 59b	46			
	b. Charitable contributions from corporations	n.a.			
44	Subsistence income 4b	6,489			
45	Total	28,585	50	Total	28,585

Source: Tables XIV, XV and XVI

TABLE XIV

GOVERNMENT REVENUE AND EXPENDITURE ACCOUNT, 1958

No.	Revenue	£ 000	No.	Exoenditure	£ 000
51	Direct taxes - persons:		58	Purchase of goods and services:	
	a. Income taxes 46a	561		a. From business 63b	4,798
	b. Succession duties 46b	51		b. Direct services-wages and salaries 39b	2,369
	c. Miscellaneous 46c	1,018			
52	Direct taxes - corporations:		59	Transfer payments:	
	a. Income tax collections	988		a. Interest 26	170
	b. Other liabilities (if any)	-		b. Other 43a	46
53	Indirect taxes 68a	2,736	60	Subsidies 68b	161
54	Investment income:		61	Surplus (+) or deficit (-)	-1,043
	a. Interest	59			
	b. Profits of government business enterprises	nil			
55	Employer and employee contributions to social insurance and government pension fund 39d	45			
56	Unaccountable	1,043			
57	Total	6,501	62	Total	6,501

Source: Tables XIII, XV and XVI

TABLE XV

BUSINESS OPERATING ACCOUNT, 1958

No.	Revenue	£ 000	No.	Expenditure	£ 000
63	Sales to residents:		67	Factor costs:	
	a. Persons 47	15,382		a. Wages, salaries and supplementary labour income 39a	4,500*
	b. Governments 58a	4,798		b. Investment income 72a	2,100
	c. Business gross fixed capital formation:			c. Net income received from agricultural operations 40	3,777
	i. New residential construction	n.a.		d. Net income of non-agricultural unincorporated business 41	7,470
	ii. Non-residential construction and machinery and equipment	n.a.		e. Inventory valuation adjustment 6	100
	d. Value of physical changes in inventories 19	-500	68	Other costs:	
64	Sales to non-residents:			a. Indirect taxes 53	2,736
	a. Travel expenditures 77b	862		b. Less subsidies 60	-161
	b. Other 77c	17,251		c. Depreciation allowances	1,873
65	Residual error of estimate	1,179	69	Purchases from non-residents 72b	17,757
			70	Residual error of estimate	-1,180
66	Total	38,972	71	Total	38,972

Source: Tables XIII, XIV, XVI and XVII

* Arbitrary estimate.

TABLE XVI

NON-RESIDENTS' REVENUE AND EXPENDITURE ACCOUNT, 1958

No.	Receipts from Fiji	£ 000	No.	Payments to Fiji	£ 000
72	Receipts from business:		77	Payments to business:	
	a. Interest and dividends 67b	2,100		a. Interest and dividends	nil
	b. Other 69	17,757		b. Travel expenditure 64a	862
				c. Other payments 64b	17,251
73	Receipts from persons:		78	Payments to other sectors:	
	a. Travel expenditure 47c	955		Interest and dividends	223
	b. All other receipts 47d	1,329			
74	Receipts from Government, i.e.				
	Interest	72			
	Other, not specified	40			
75	Surplus (+) or deficit (-) on current account (or transactions relating to the National Accounts)	-3,917			
76	Total	18,336	79	Total	18,336

Source: Tables XIII, XIV, XV and XVII

TABLE XVII

BALANCE OF PAYMENTS SUMMARY, 1958

	1958	
	Receipts	Payments
	(£F thousands)	
Goods and Services:		
Merchandise	12.816	15.800
Non-monetary gold	1.140	.003
Foreign travel	.862	.955
Transport and insurance	1.210	2.801
Investment Income	.223	2.172
Government transactions	1.755	.040
Total Goods and Services	18.006	21.771
Donations:		
Private	.051	.482
Public	.279	-
Total Donations	.330	.482
Total Current Transactions	18.336	22.253
Capital:		
Private Capital movements	.290	.050
Official and Banking institutions	.027	1.560
Total Capital Movement	.317	1.610
Errors and Omissions	5.210	
Total Transactions	23.863	23.863

Source: Commerce and Industries Office estimates, unpublished.

TABLE XVIII

GROSS DOMESTIC PRODUCT AT FACTOR COST BY INDUSTRY, 1950, 1953 and 1958

	1950		1953		1958	
	£ 000	Percent	£ 000	Percent	£ 000	Percent
Agriculture: Copra	1,031	5.76	1,983	7.82	1,348	4.06
Sugar	1,071	5.98	3,723	14.66	4,131	12.45
Bananas	81	0.45	193	0.76	109	0.33
Other agriculture	1,463	8.18	1,918	7.56	2,714	8.18
Mining and Quarrying	966	5.57	753	2.97	994	2.99
Manufacturing, including Processing	1,656	9.25	2,059	8.12	3,458	10.42
Construction, Building and Engineering	1,184	6.27	1,494	5.89	2,593	7.81
Transportation	495	2.76	827	3.25	1,286	3.87
Wholesale and Retail Trade	2,274	12.81	3,052	12.02	3,834	11.55
Catering	244	1.36	358	1.42	1,005	3.03
Services: Personal, Professional and Entertainment	1,066	5.96	1,261	4.97	1,668	5.03
Finance, Insurance and Real Estate	1,203	6.72	1,458	5.74	1,940	5.84
Public Administration and Defence	712	3.98	929	3.66	1,622	4.89
All Non-Monetary Output	4,447	24.95	5,371	21.16	6,489	19.55
Gross Domestic Product	17,893	100.00	25,379	100.00	33,191	100.00
Depreciation	1,172		1,264		1,873	
Net Domestic Product	16,721		24,115		31,318	

Source: The Pattern of the Fiji Economy: The National Income 1950-53, for 1950 and 1953. 1958 is estimated by the writer from Tables XXVIII and XXXII.

Note: Depreciations had to be assigned to indivudual industries for 1950 and 1953.

2. Notes on Tabular Framework

Sources of data and techniques of estimate are described in Chapter V. However, some notes on the main tables are considered essential as some items in this tabular framework need elucidation. These items are important to maintain consistency in the accounts.

Inventory changes which are somewhat related to overseas shipping movement suffer from a serious lack of information. Arbitrary estimates, therefore, had to be made. Consequently, allowing for the fact that 1958 was a recession year, inventory disinvestment to the value of £500,000 is suggested for Item 19 in gross national expenditure. In gross national product another arbitrary figure of £100,000 is allowed for inventory valuation adjustment (Item 6). These values have to be taken into account to ensure consistency in the accounting procedures. Nil entries do not maintain such consistency especially when the amount expended on wages and salaries is considered.

Corporation profits before taxes, Item 2, is computed from the annual report of Inland Revenue Department. Item 13 of Table X, government expenditure on goods and services is taken from Table XXXV after allowing for local and municipal governments.

Statistics contained in the sector accounts are particularly inadequate. Government sector is better and could be improved once local and municipal government statistics are co-ordinated. Other sectors, however, contain many arbitrary estimates.

Item 39a, wages, salaries and supplementary income paid to labour by business is estimated as £ 4.5 million, a rule of the thumb estimate. Interest, dividends and net rental income of persons, Item 42, is suggested as £30,000. This estimate can certainly be improved if income tax returns are analysed to advantage.

Item 77a, interest and dividends received by business sector from abroad is negligible as business firms of Fiji are not known to invest capital, direct or portfolio, outside the country. A nil entry is attributed to this component.

Table XVII, balance of payments, is from a study, unpublished, done by the writer while in service with the Government of Fiji. This study, too, suffers from the paucity of information. The large errors and omissions of £5.2 million, 21.8 per cent of the total transactions are, however, accountable. Over 75 per cent, i.e. £3.9 million, of the deficit accrue in current transactions where merchandise alone accounts for £ 3 million.

In 1958, there was also large repatriation of loans by the commercial banks to their parent offices in Australasia. Earlier, in 1956 and 1957, banks had borrowed to extend credits in Fiji. In fact the sudden squeeze in the credit facilities late in 1957 was primarily the cause of the recession in 1958.

The subsistence or non-cash income is equated to non-cash expenditure which is included in personal expenditure on consumer goods of the gross national expenditure table.

3. General Analysis

The function of this report has been to provide a framework of national accounts for Fiji Islands drawing on quantitative data for 1958 for illustrative purposes. Having done this, it seems proper to draw some conclusions while abstaining from counselling on general economic policy. Controversial discussions are, therefore, avoided; only the main features are elaborated. Table XVIII is important for the discussion that follows.

Gross domestic product between 1950 and 1958 rose by £15.3 million or 85.5 per cent in terms of current prices. During the shorter interval of 1953 to 1958 the increase is £7.9 million or 30.4 per cent. Prices have been rising from 1953 = 100 to 1958 = 109.5. Thus in terms of 1953 prices the gross domestic product of 1958 is £30.3 million, an increase of £4.9 million or 19.4 per cent only.

The average annual rate of increase in terms of current prices between 1950 and 1958 is the remarkable rate of 10.7 per cent. Similar rate for 1953-1958 period is 6.1 per cent, however. Such features are not quite uncommon to the emerging countries where prosperity is almost directly correlated with the world prices of raw materials they produce generally but more specifically the price of the main export product. In the case of Fiji, sugar, its main export, enjoyed high prices during the mid-1950's and this is reflected in the general prosperity of the country.

In terms of constant prices, average annual rate of increase between 1953 and 1958 is 3.9 per cent. This is more realistic. Almost all economic policies of the government apparently are based on a growth rate of 3 per cent, arbitrarily assumed. Population growth during the same period has been at the annual rate of 3.33 per cent. While governments' assumed rate of increase is justified, the standard of living and general welfare of the people is not expected to improve if what is produced additionally is just sufficient to feed the new mouths that come into existence. Burns Commission, when forecasting the annual rate of increase of 3 per cent over most of 1960's, contended that this will only maintain the present standard of living rather than improve it.

Agriculture as a single sector is dominant in the economy of Fiji. Excluding the share of non-monetary, subsistence sector, 25 per cent of the gross domestic product accrue to agriculture. Of this, sugar accounts for half the amount with copra as a single crop in the second place. The fortunes of banana trade fluctuates, perhaps largely according to the climatic inclemencies. One tropical hurricane, common during summer months, can ruin the whole crop but recuperating does not take very long either.

Subsistence activities of the people of Fiji declined from 25 per cent of the gross domestic product in 1950 to 19.55 per cent in 1958. It is imputed that four-fifths of subsistence output accrue to Fijians, the remainder to Indians and Chinese. It can therefore be inferred that money is slowly beginning to play its role among the indigenous people.

Primary production, which includes agriculture, forestry, fishing and mining accounted for 47.56 per cent of the gross domestic product in 1958. Similar figure in 1953 was 54.93 per cent. Secondary industry, i.e. engineering, construction, processing and manufacturing was 18.23 per cent compared to 14.01 per cent in 1953. And tertiary industries, including distribution, transport, service industries and government contributed 34.21 per cent of the gross domestic product as against 31.01 per cent in 1953.

The stage of Fiji's development can be deduced from these significant figures. The contribution of tertiary industries is large but 'secondary' proportion, which is closely associated with industrial expansion, is small. Of the manufacturing and processing component two-thirds to three-quarters accrue to the manufacture of sugar and copra products (coconut oil and coconut meal). If this is added to the output of these crops in the primary sector the dependence of Fiji on sugar and copra becomes obvious.

Pure service industries, i.e. catering, personal and professional services, and entertainment, are not very large as yet, only 8 per cent of the gross domestic product. However, there is the social and other background settings for this component to grow at a rate faster than others. Urban centres have been subjected to inflows of rural population since the war. Women members of this new urban community are taking to personal services activities, e.g. domestic duties, in increasing numbers. Also there has been a considerable increase, in the professional group, of local people returning to Fiji after education and training abroad. There are far more doctors, dentists and lawyers in Fiji today than ever before.

The proportion of gross domestic product which is diverted to capital formation indicates the rate at which resources are being put towards future production rather than being consumed in the present. Actual figures of fixed capital formation are not always easy to obtain. In this study private investment has been estimated as a residual item. This gave the highly dubious result of £9.1 million which, it is strongly contended, is not representative of reality. But there was no means available to verify it.

Total government revenue taken as a proportion of gross domestic product is sometimes quoted as an indication of the costs of government which must be borne by the economy. This, however, has to be qualified according to the size of the population on the one hand and the geographical size of the country on the other. A poor country with a low national income may find that essential government services absorb a large part of it. In Fiji, central government revenue was equal to 20.4 per cent of gross domestic product in 1958.

Per capita net income in current prices in 1958 is £ 78.94. In terms of 1953 prices it is £ 72.09. Of the £ 78.94 per person, £ 58.93 is cash income, £ 20.01 subsistence income valued at growers' price.

The convention in analysing an economy through national accounts is to use the gross national product aggregate. In the above analysis gross domestic product has been used. This was out of necessity to maintain consistency with analysis done earlier and also render intertemporal comparison meaningful. However, this practice is not recommended. Rather, the use of gross national product instead of gross domestic product must be maintained for international consistency.

CHAPTER V

SOURCES AND METHODS

1. Basic Information

In this report social accounts have been compiled for the sample year 1958. The choice for the year was dictated by the availability of economic information. The writer had access to 1958 Government publications and other material that he had acquired in the course of his service in Fiji and had brought with him to Ottawa when he first came to the University. They were the main sources of information. However, had this study been done in Fiji additional information could be obtained from many Secretariat and Departmental files. Also, better guesses could have been made on the basis of survey-information of many businessmen, some civil servants and administrators. It is therefore the intention of the writer to improve on his estimates when he is back in Fiji by utilizing all other information that may be available there.

The previous investigation of national income by Miss C. O'Loughlin[1] has been particularly helpful. The much needed sense of magnitude of such aggregates as gross

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[1] The Pattern of the Fiji Economy: The National Income 1950-1953, Suva, Government Press, 1956.

national product and gross national expenditure were derived from this study. Rather unrealistic totals could thus be avoided.

The main sources of statistical material used were the Departmental Annual Reports of the Government of Fiji. They are listed in Appendix 1. The Burns Commission Report provided some valuable statistics that had previously been sifted. Some unpublished statistics compiled by Commerce and Industries Office, Government of Fiji, were also accessible. They all proved useful in estimating domestic output by product method. In fact this is an independent and original estimate using only some price data from Miss O'Loughlin's. This establishes the earlier assertion that in less developed countries production data are more readily available than income or expenditure figures and national income estimates are generally through output method only, the income and expenditure totals being balanced off from this aggregate.

The actual techniques used in estimating 1958 output, income and expenditure are described in the following sections. However, the basic information on population growth and price changes are given in Tables XIX and XX.

Table XIX shows the increase in population during the period 1953-1958. Net migration accounts for the high percentage increase of the European components. Perhaps

TABLE XIX

POPULATION CHANGE, 1953-1958

Race	Population 1953	Population 1958	Per cent Increase in 1958 over 1953
Fijian	139,373	157,808	13.23
Indian	154,803	184,090	18.92
European	6,500	8,987	38.26
Part-European	7,496	8,273	10.36
Chinese	3,857	4,545	17.84
Other Pacific Races	8,772	10,581	20.62
Total	320,801	374,284	16.67

Source: *Fiji 1953* and *Fiji 1958*, Her Majesty's Stationery Office, London.

there is an additional reason also. Part-Europeans, who are people of mixed descent, tend to register more of their babies as 'Europeans'. This is inferrable from their low rate of increase.

The percentage increases in population have been used to 'blow-up' certain sector totals and components from 1953 to arrive at 1958 estimates. They are then changed to 1958 prices by the cost of living indices of Table XX.

Table II contains the three separate series of the cost of living index of Indians of Suva, Indians of country (excluding Suva), and European families. In Table XX the series of Indians in Suva and European families have been combined for a 'national' series by using the relative proportions of Indians and Europeans in the total population of Suva as weights.[2] For reasons already stated, i.e. Fijian population having no cost-of-living index at all, the series in Table XX is obviously defective as 'national' indices. But to remedy this situation is beyond the present means. Besides, what is needed is a broad indication of the movement of prices during the period. The new series is indicative.

2. Domestic Production: Agriculture, Forestry and Fishing

Agricultural production in 1958 amounted to £14.8 million or 44.5 per cent of the gross domestic product.

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[2] The ratio of Indians to Europeans in Suva in 1956 was 19:3.

TABLE XX

COST OF LIVING INDEX BASED ON SUVA AND ENVIRONS

Year	Weighted Average Index: Indian and European Combined (1953=100)
1950	82.4
1951	89.7
1952	100.6
1953	100.0
1954	104.9
1955	106.0
1956	109.1
1957	109.9
1958	109.5

Source: Burns Report, Table D.2, p. 145.

of this £6.49 million was non-cash production, that is, what the farmers produced for themselves. This is the subsistence production.

Copra

Copra production in 1958 was 30,296 tons. With an average price of £52.45 per ton the total revenue from sales is £1,589,025. Of this an estimated 88 per cent accrue to the growers and the remaining 12 per cent, or £190,683, is paid as agency fees and for transportation of copra from the outlying islands to Suva for manufacture of coconut oil, and for export.

In Fiji copra is grown by large estates as well as native growers under the communal system. An estimated 45 per cent[3] (£629,250) of revenue from sales is attributed to estate production and the remainder (£769,088) to native producers. Since Fijians are the landowners and provide their own labour no account can be drawn for their production. A consolidated account for estate copra only is given in Table XXI.

Percentages attributed to depreciation, wages and salaries and profits approximately follow the previous study. Rent has been increased by £500 because of the increase of 2,500 acres under coconut plantation.

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[3] All such percentages are taken from Miss C. O'Loughlin's study, op. cit.

TABLE XXI

CONSOLIDATED ACCOUNT: ESTATE COPRA

Receipts	£	Expenditures	£
Revenue from Sales	629,254	Miscellaneous costs paid to other sectors	50,510
		Depreciation	25,000
		Wages and Salaries	204,822
		Profits	339,422
		Rent	9,500
	629,254		629,254

Source: As per discussion under 'copra'. Subdivision of expenditure is according to O'Loughlin's study, <u>The Pattern of the Fiji Economy, 1950-1953</u>.

Non-cash production of coconut is estimated at £530,301. Milk from dry coconut being an important part of the Fijian diet, 4 ripe nuts per person per week for the entire Fijian population is regarded as adequate. At 3d. per nut £410,301 is imputed as the value of non-monetary consumption. Another £120,000 is imputed as the value of green coconuts consumed by all sections of the Fiji population.

Total output of copra is given in Table XXII.

Sugar

In 1958, 128,863 acres were being cultivated for sugar cane crop. From the 76,838 acres harvested the yield was 1,531,304 tons of raw sugar cane. At an average price of £3.75 per ton, the total production is valued at £5,742,390. The sugar cane forming income and expenditure account is given in Table XXIII.

"Gang labour" is used by cane farmers for harvesting sugar cane on each other's farms. Its payments include daily wages and bonuses paid by the farmers for this purpose and as such it is a self-balancing item. The £333,000 for gang labour is a rough estimate. Wages, estimated at 15 per cent, include weekly remuneration paid to part-time, full-time, permanent and casual workers outside the farmer's family, and a corresponding wage payment imputed for adult

TABLE XXII

TOTAL OUTPUT OF COPRA

		£
Production:	Estate	553,744
	Fijian cash	769,088
Total Cash		1,322,832
Non-Cash:	Dry nuts	410,301
	Green nuts	120,000
Total production		1,853,133

Source: As per description of estimate for copra.

TABLE XXIII

SUGAR CANE FARMING ACCOUNT
(£000)

Receipts		Expenditures	
Income from cane	5,742	Miscellaneous costs paid to other sectors	1,944
Gang labour	333	Depreciation	182
		Gang labour	333
		Wages	911
		Rent	68
		Surplus	2,637
	6,075		6,075

Source: As per discussion under 'sugar'. Subdivision of expenditure is according to O'Loughlin's The Pattern of the Fiji Economy, 1950-53.

male members of families working for most of the year at home.

Rent is estimated from the increase in acreage: 104,163 acres in 1953 yielding £55,000 to 128,863 acres yielding £68,000 in 1958. Depreciation is taken at 2 per cent, approximately the same as in 1953.

Bananas

Banana production from the 5,000 acres cultivated for this crop was 148,600 cases, having an export value (f.o.b. Suva) of £163,464. An average of 47 per cent of this value, or £77,298, accrue to the growers, the remainder includes packing and exporting costs and the profits of packers and exporters. Bananas are grown predominantly by Fijians with their own labour and land and little fertilizer or machinery is used.

The total output includes what is exported plus what is consumed locally. The latter portion is considerable and is not affected to any significant degree by the prevailing export prices. Rather, if bananas for export do not meet specific standards set by the Department of Agriculture, and thus rejected, local markets are glutted temporarily. Estimated sale for local consumption based on rejections, 7.95 per cent of the cases intended for export in 1958, is £31,000. Non-cash production, i.e. grown around homesteads and koros and consumed by the growers, is estimated to be twice the local cash purchases.

Total output of banana production is given in Table XXIV.

Root Crops

Root crops such as dalo, yams, sweet potatoes and tapioca are, in general, native subsistence crops grown for food. Very little is sold for cash. Negligible amount of fertilizers, machinery or outside help is used in their production.

Estimate of root crop production is from 1953 and 1958 acreage figures and 1953 prices (=100) adjusted to 1958 relative prices by the cost-of-living index (1958=109.5). The total value of production of various root crops is given in Table XXV.

Other Agricultural and Vegetables Crops

Acreage increase in 1958 over 1953 has been used to calculate 1958 yield at 1953 prices and then adjusted to 1958 prices. An estimated 41 per cent of the output, £65,400, is sold for cash; the remainder, £94,900, is the non-cash production consumed by the producers.

TABLE XXIV

BANANA PRODUCTION

	£
Export Bananas	77,298
Local Cash Consumption	31,000
Non-cash Consumption	62,000
	170,298

Source: Trade Report, 1958, Customs Department.

TABLE XXV

ROOT CROP PRODUCTION

Crops	Acres Cropped	Non-Cash	Cash	Value of Output
		£000	£000	£000
Dalo	14,500	2,524	143	2,667
Yams	2,500	599	19	618
Potatoes	33	1	4	5
Sweet potatoes	1,400	189	25	214
Tapioca	17,500	524	25	549
Total	35,933	3,837	216	4,053

Source: Annual Report, 1958, Department of Agriculture.

The acreage and the total value of production of these crops are given in Table XXVI.

Rice

Area cropped was 31,200 acres. At an average yield of 16 cwt. of padi per acre total output is 24,960 tons of padi. In 1953 prices this production is valued at £1,123,000 and when adjusted to 1958 prices the output has the total value of £1,229,685. An estimated 40 per cent is sold for cash; thus cash sales amount to £491,874 and non-cash, £737,811.

Livestock Products

Cattle killed at registered slaughter yards in 1958 numbered 8,761. Revenue from the sale of beef at 1958 price adjusted from 1953 price is £133,730. Ninety per cent or £120,357 is taken as the value of beef output.

Pigs killed numbered 2,866 and yielding £20,609 as revenue from meat sales. Pork output is estimated at 90 per cent or £18,548.

The ten per cent of revenue from sales in the case of both beef and pork is taken as the value of feed stuff and is accounted for elsewhere.

Estimate for bush pigs, cattle and wild birds killed for meat, rather on the low side, is £50,000.

Goat meat is common in the Indian diet. One thousand

TABLE XXVI

AGRICULTURAL AND VEGETABLE PRODUCTION

Crop	Acres Cropped	Output £000
Maize	280	2.4
Tobacco	250	2.7
Beans, peas and pulses	1,850	27.7
Coffee	50	1.1
Groundnuts	70	4.7
Tomatoes	120	44.1
Other Vegetables and Fruits	1,157	35.5
Cabbage	120	10.2
Lettuce	100	31.9
Total	3,997	160.3

Source: Annual Report, 1958, Department of Agriculture.

nine hundred and four goats were killed in slaughter houses yielding 18,040 pounds of meat. At 5 shillings per pound, the value of output is £4,510. Twice this amount, £9,020, is taken as non-marketed goat meat production as it is widely used in all Indian ceremonies and festivities.

Export value of 10,092 hides and skins (including calf skins) was £17,867. Estimated net output, however, is £16,500.

Dairying Output

In 1958 estimated revenue from sales of milk and milk products: betterfat, ghee (butter oil), milk supply in towns and townships, was £524,809. The net output is valued as 90 per cent of revenue from sales, i.e. £472,323. Darying account is given in Table XXVII.

A considerable amount of milk and ghee is produced and consumed on the farm. Such non-cash production is valued at 37 per cent, £175,000, of net output.

Eggs and Poultry

Very little information is available anywhere for this component. Yet eggs and poultry are used widely by all sections of the population. A four-fold increase in production since 1953 is assumed and the 1958 output is estimated as £1,257,000. Of this 48 per cent (£603,000) enters the cash market and the rest is non-cash production, i.e. £654,000.

TABLE XXVII

CONSOLIDATED DAIRYING ACCOUNT

Receipts		Expenditures	
Revenue from Sales	524,809	Miscellaneous costs paid to other sectors	41,990
		Depreciation	10,496
		Salaries	199,425
		Rent	52,480
		Profits	220,418
	524,809		524,809

Source: As per discussion under 'dairying output'. Subdivision of expenditure is according to O'Loughlin's The Pattern of the Fiji Economy, 1950-53.

Yagona

In 1958, 4,500 acres were cultivated for yagona, a root from which Fijians, Indians and others make their favourite drink. On the basis of 1953 yield per acre and 1958 price adjusted from 1953 price the total value of output is £114,000. Of this 42 per cent, worth £48,000 is marketed, thus leaving the non-cash production at £66,000.

Forestry

Yield of all recorded forest produce in 1958 was 2.8 million solid cubic feet valued at £507,529. Eighty per cent (£406,023) of this amount is taken as the value of output, the remainder, £101,506, being paid to other sectors. Non-cash production, i.e. timber cut for firewood and native buildings is 39.5 per cent of value of output, £160,379. The total value of forestry output therefore is £566,402 (£406,203 + £160,379).

Fishing

This sector is the poorest with respect to statistical data. A conservative estimate is 16 million pounds of fish production in 1958 worth £438,000. In 1953 production was estimated at 14 million pounds worth £400,000. Allowing 5 per cent for expenses such as boats and nets, £416,100 is the value of total output in 1958. Of this 22.5 per cent or £93,622 is the non-cash production.

Shell

Sea shells: pearl, trochus and turtle, and similar material exported in 1958 was valued at £92,781. Approximately 89 per cent of this amount, £82,130, is taken to be the output of shell industry.

Depreciation

Depreciation for copra, sugar cane and dairying is calculated from the accounts drawn for them. For others arbitrary values are assigned as follows: £1,000 each to bananas, root crops, other vegetables, fishing and shell industries; £2,000 each to rice, meats and hides, poultry and eggs, and forestry. All depreciations are added to the cash output. Table XXVIII contains agricultural, pastoral, forestry and fishing output for 1958 divided into cash and non-cash portions.

3. Domestic Product: Manufacturing, Processing, Distribution, Public and Private Services

Mines and Quarries

The gross value of production from mines and quarries in 1958 is given in Table XXIX.

Royalties paid in 1958 amounted to £25,028. The mining account is drawn up in Table XXX. The breakdown of amounts on expenditure side is according to 1953 pattern.

TABLE XXVIII

OUTPUT 1958: AGRICULTURAL, PASTORAL, FORESTRY AND FISHING

(£ 000)

Items	Cash	Non-Cash	Total
Copra	1,348	530	1,878
Sugar cane	4,131	-	4,131
Bananas	109	62	171
Root crops	217	3,837	4,054
Other agricultural and vegetable crops	66	95	161
Rice	494	737	1,231
Meat and Hides	162	59	221
Dairy products	308	175	483
Eggs and Poultry	605	654	1,259
Yaqona	48	66	114
Forestry	408	160	568
Fishing	323	94	417
Shell	83	-	83
Total Gross Output	8,302	6,469	14,771
Depreciation			230
Total Net Output			14,541

Source: Tables XXI to XXVII and other estimates of output as described in Section 2, Chapter V.

TABLE XXIX

MINES AND QUARRIES PRODUCTION

	£
Gold	1,193,419
Silver	8,883
Manganese	262,982
Copper	3,034
Limestone	40,254
Road Metal	103,928
Iron ore	8,931
Sand and gravel	89,400
Coral sand	17,761
Total	1,728,592

Source: Annual Report, 1958, Department of Land, Mines and Surveys.

TABLE XXX

MINING ACCOUNT

Receipts		Expenditures	
	£		£
Revenue from Sales	1,728,592	Miscellaneous Payments to other sectors	734,565
		Depreciation	77,873
		Wages) Profits)	891,126
		Royalties	25,028
	1,728,592		1,728,592

Source: Table XXIX. Subdivision of expenditure is according to O'Loughlin's The Pattern of the Fiji Economy, 1950-53.

Building, Construction, Engineering and Public Works

The average annual rate of growth in the output of building, construction and engineering work, including the Public Works Department of the Government over the period 1950 to 1957 is 12.51 per cent, 1957 figures being taken from Burns Commission Report. In the absence of any other source of information, it has been assumed that this rate of growth continued into 1958 although private construction suffered some decline due to the "credit squeeze" of Fiji's commercial banks. The 1958 net output therefore is £2,344,000. A further £20,000 is imputed for all new Fijian bure construction.

Manufacturing and Processing

Adequate and comprehensive data is available for this sector in Fiji, but since none is published very little was available here. Therefore estimates had to be made from the average annual growth rate which during the period 1950 to 1957 was 11.72 per cent. Projecting this rate into 1958 from £2,485,000 of 1957, the net output of manufacturing and processing industries is estimated at £2,766,000. It will be noticed that the contribution made by manufacturing and processing in the Fiji economy is small compared to that of primary industries. However, with new industries being established, this sector is expected to grow and thus minimize the agricultural bias at present inherent in the economy.

Wholesale and Retail Distribution

All races of Fiji's population are engaged in wholesale and retail business. Large non-resident companies have branches in all major centres of the country. However, a large percentage of the population is directly served by small Chinese and Indian stores studded all over the countryside, carrying practically all items of everyday use. Some Chinese storekeepers in particular act as middlemen in copra and banana trades. Some larger concerns in Suva have considerable entrepot trade with the neighbouring islands of the South Seas, fuel oil and textile being important items of such trade.

Once again no statistics are available here in Ottawa, but analysis of income tax returns should provide valuable information. Projection for 1958 from 1953 is at the average annual rate of growth of 6.22 per cent giving the gross value of £18,258,000 accruing to wholesale and retail trade. A 1.8 per cent (£328,000) depreciation has been allowed; £14.4 million is paid to other sectors thus leaving net output in wages, salaries, rents and profits of £3,506,000.

Transport

Road: Broad estimates of output for this component is as follows: taxis, £92,000; trucks, £30,000; and passenger buses, £99,000; a total of £221,000. The overall income of road transport could not have increased much because of high maintenance costs on vehicles.

Air Transport: Income accruing from this sector consists of salaries and wages of the staff maintained by foreign air companies. There is also a local airline operating on a small scale and supported by a government subsidy. Output for 1958 based on the average annual rate of growth for this component during 1950 to 1953, i.e. 20.73 per cent is £820,000, a very probable figure considering the increase in tourist trade, the introduction of jet services through Fiji and increase in the number of international airplanes calling at Fiji.

Water Transport: In 1958 vessels registered with Fiji Marine Board numbered 106 with total capacity of 3,431 tons. In 1953 there were 96 vessels registered but the capacity was 3,712 tons. Estimated output in 1958 therefore is £116,000 (£114,000 in 1953) based on Burns Commission's remark that excess charges were being made to transport copra from the Islands to Suva. Also many operators had claimed that they operated at a loss in 1953.

Catering

Accommodation and meals trade of hotels has been increasing mainly due to the improvement in shipping and air services by which tourists come to Fiji. In 1953 net output of catering industry was £336,000. There has been about three-fold increase in the number of tourists arriving in Fiji since. Taking this into account and considering the inflow of rural population to urban centres, catering, which included all hotels, restaurants, etc., is estimated to have contributed £980,000 to net product.

Domestic and Other Services

Included in this group are services industries such as hairdressing, laundry, undertaking, entertainment, press and broadcasting, and domestics. A housewife's work is not evaluated following the conventional practice in other countries. However, there is still the need to evaluate the contribution of family workers. This, of course, entails considerable problems such as distinguishing between housework and other help around the farmstead or in the small village store. It would be easier to place an arbitrary value only on the work done by the adult males working for themselves.

Taking an average annual increase of 8 per cent, true for the period 1950 to 1953, the net output for 1958 is estimated at £717,000.

Banking and Financial Services

This component includes profits made by banks through money changing and other services, wages and salaries of employees in banking, accounting and insurance, and interest paid to depositors by the banks and the Government Savings Bank. No statistical information was available here except interest paid by Government Savings Banks which was £36,612 in 1958. Broad estimate based on the growth rate over 1950-1953 period is £773,000 as net output for 1958.

Professions

All medical and educational services performed by the government are included in this component along with such services performed by missions, private bodies and individuals. Net contribution of lawyers is also included. Net output is estimated at £905,000 (£708,000 in 1953), a probable sum since there has been increasing number of professionals of local origin trained outside Fiji but returned to practice in Fiji.

Government and Defence

Very elaborate information, though largely unco-ordinated, is available for central government, but for local and municipal governments data are very scanty. From the central government accounts, expenditure on Education, Medical and Public Works departments have been excluded as these have been accounted for elsewhere. Table XXXI gives output of this component.

Rent of government property is the imputed item, £103,000 for central government and £2,000 for other governments.

Royal New Zealand Air Force maintained an air base near Suva as part of defence arrangements in the region.

Ownership of Property

This item includes rents of all housing in the country. If houses are owner-occupied rent is imputed. Net rent in 1953 was £821,000. Increasing this by the increase in population, i.e. 16.67 per cent, the net output for 1958 is estimated at £958,000 in terms of current prices.

Table XXXII shows the domestic output of manufacturing, processing, distribution, public and private service industries. The total depreciation for this sector, at 8.9 per cent of the gross value, is £1,643,000. This amount has been allocated to individual component according to 1953 percentage distribution and other information that was available for some industries.

Gross domestic output at factor cost, by industries, estimated through product method is given in Table XXXIII for the year 1958 and comparative figures for the years 1950, 1953 and 1958 are contained in Table XVIII.

TABLE XXXI

OUTPUT: GOVERNMENT AND DEFENCE

		£ 000
Salaries:	Central Government	1,032
	Other Governments	200
Wages: All Government		140
Resident Fiji Military Forces and R.N.Z.A.F.		250
Rent of Government Property		105
		1,727

Source: Report on Accounts and Finance, 1958, Treasury Department, and Work Sheets, Balance of Payments Estimates, Commerce and Industries Office.

TABLE XXXII

DOMESTIC OUTPUT: MANUFACTURING, PROCESSING, DISTRIBUTION, PUBLIC AND PRIVATE SERVICE INDUSTRIES, 1958

Components	Net Output	Gross Output
	£000	£000
Mining	916	994
Building, Construction and Engineering	2,364*	2,613*
Manufacturing and Processing	2,766	3,458
Wholesale and Retail Trade	3,506	3,834
Transport	1,157	1,286
Catering	980	1,005
Personal Services and Entertainment	717	739
Professional	905	929
Finance and Insurance	773	792
Property Ownership	958	1,035
Government and Defence	1,622	1,622
Government Property	105	105
Total	16,769	18,412
Depreciation		1,643
Net Output		16,769

Source: Tables XXIX to XXXI and other descriptive account contained in Section 3, Chapter V.

* This item includes £20,000 of non-monetary output due to Fijian housing construction.

TABLE XXXIII

GROSS DOMESTIC PRODUCT AT FACTOR COST, BY INDUSTRY, 1958

Industry	£ 000	Per cent
Agriculture: Copra	1,348	4.06
Sugar	4,131	12.45
Bananas	109	0.33
Other Agriculture	2,714	8.18
Mining and Quarrying	994	2.99
Manufacturing, including Processing	3,458	10.42
Building, Construction and Engineering	2,593	7.81
Transport	1,286	3.87
Wholesale and Retail Trade	3,834	11.55
Catering	1,005	3.03
Professional, Services and Entertainment	1,668	5.03
Finance, Insurance and Real Estate	1,940	5.84
Public Administration and Defence	1,622	4.89
All Non-monetary output	6,489	19.55
Gross Domestic Product	33,191	100.00
Depreciation	1,873	
Net Domestic Product	31,318	

Source: Tables XXVIII and XXXII.

Income from outside the country amounted to £330,000 in 1958 but profits earned by non-resident companies was £2,100,000. Net national output of Fiji residents therefore is £29,548,000.

4. Domestic Product through Income Approach

Estimating total output of goods and services through income of factors of production for Fiji is not very satisfactory because of the paucity of information. Only a vague indication for wages and salaries component is available from Inland Revenue statistics. Information on profits of resident and non-resident companies, and incorporated and unincorporated enterprise is also inadequate. Figures on rent again are scanty in published form.

Except for the obvious total as the subsistence income Table XXXIV, on distribution of income, is compiled by ad hoc methods. The "blow-up" technique has been used for nearly all components, the rates being population growth and price changes from 1953 base figures.

Income from overseas include private investment income, remittances received by Royal New Zealand Air Force personnel and donations received by individuals and missions. For 1958 this is estimated to be £330,000.

Total company profits after tax for 1958 as stated by Inland Revenue Department is £2,703,871. Of this, £2.1

TABLE XXXIV

DISTRIBUTION OF INCOME, 1958

	£000	Per cent
Wages	7,210	21.72
Salaries	3,563	10.73
Profits, Interest and Rent of Unincorporated Enterprise	7,470	22.51
Money Income from Agriculture	3,777	11.38
Profit of Resident Companies	604	1.82
Government Property (imputed)	105	0.32
Subsistence Income	6,489	19.55
Income from Overseas	330	
Total Resident Income	29,548	
Less: Income from overseas	- 330	
Plus: Profits of Non-Resident Companies	2,100	6.33
Net Domestic Product	31,318	
Depreciation	1,873	5.64
Gross Domestic Product	33,191	100.00

Source: Estimated as described in Section 4, Chapter V.

million accrue to non-resident firms leaving £604,000 as resident company profits. This is a small sum but no check could be made on it.

Money income from agriculture pertains mainly to Fijians. The sum includes an estimated £98,000 as rent for their land and other cash income from copra growing, forestry, fishing, shell gathering and other agricultural and pastoral pursuits. This item is computed residually which accounts for its size. In 1953 Fijian money income from agriculture was only £2.2 million.

5. National Expenditure

Once again little statistical information on all expenditures other than that of central government is available here. The details of the new consumer expenditure series which started since 1958 should be valuable when published. Presumably they are in the files of the Labour Department at the moment. Therefore the "blow-up" technique is once again employed using rates of population growth and price changes.

Central Government account has adequate statistics compiled and published by the Department of Accountant-General in the "Report on the Accounts and Finance" which contains both current and capital expenditures. Accounts of local and municipal governments are not published but would be available in Fiji. In this study therefore broad estimates have been made.

Private investment data are scanty and had to be estimated as residual item. Inventory changes, which are subject to wide fluctuations but have some relation with the movement of ships in and out of Fiji, are not available at all and had to be arbitrarily assumed.

The balance of payments study for 1958 was done by the writer when he worked in the Commerce and Industries Office. Fortunately these figures were available here in the unpublished form. However, the reliability of the balance of payments estimate is also questionable.

The Central Government account is given in Table XXXV. It excludes the account of development budget which in Fiji is separate from current expenditure budget.

The national expenditure is given in Table XXXVI. Personal expenditure includes outlays of all persons residing in Fiji and the current outlays of non-profit organizations. Non-cash expenditure is equated to non-cash income and output. Government expenditure includes all government current expenditure on goods and services, maintenance, but excludes transfer payments and capital items. Local governments are included with central government. Foreign investment is the net exports as contained in the current account section of balance of payments.

TABLE XXXV

CENTRAL GOVERNMENT ACCOUNT, 1958

Revenue	£	Sub-Total
A. Indirect Taxes:		
Customs Duties and Excise	2,541,010	
Licences, fees, etc.	180,556	
Forestry Royalties	14,944	
Port and Customs Service Tax and Sugar Export Tax	392,323	3,128,833
B. Direct Taxes and Transfers:		
Direct Taxes	1,799,163	
Widows and Orphans	45,344	
Miscellaneous	818,926	
Interest	59,302	
Mining Royalties	25,046	
Inter-government	116,664	2,864,445
C. Payments and Reimbursements for Services		
Wharfage, etc.	80,982	
Post Office	248,235	
Rent	103,379	
Other	349,529	782,125
Total Revenue		6,775,403
Expenditure		
D. Current Expenditure:		
Salaries (personal emoluments)	2,369,450	
Goods and Services	2,015,580	
Maintenance Provisions	1,053,309	5,438,339
E. Transfers:		
Persons and Organizations	440,823	
Internal Governments	140,911	
Interest	170,558	
Sinking Funds	66,918	
Allocation to Development	233,544	
Surplus Balance	40,664	1,093,418
F. Capital Items:		
Special Expenditure	64,824	
Unallocated Stores	17,963	82,787
G. Subsidies:		160,859
		6,775,403

Source: *Report on Accounts and Finance, 1958*, The Treasury, Government of Fiji.

TABLE XXXVI

NATIONAL EXPENDITURE, 1958

	£ 000	Per Cent
Personal Expenditure		
Food	13,800	38.58
Other	9,617	26.89
Government Current Expenditure	4,736	13.24
Domestic Investment		
Private	9,099*	25.44
Public	2,431	6.80
Net Foreign Investment	-3,917	-10.95
Gross National Expenditure at Market Prices	35,766**	100.00
Less: Indirect Taxes	-2,736	
Plus: Subsidies	161	
Gross Domestic Expenditure	33,191	

Source: Table XXXV and other estimates as described in Section 5, Chapter V.

* Since this is estimated as residual item it must contain some errors of estimation.

** This sum does not include inventory disinvestment of £500,000 arbitrarily estimated in Table X, Item 19.

In Table XXXVII the three-way flow of output, income and expenditure of national product is given according to the principles laid out earlier in Table VII.

The method of estimating national product through extrapolation, as has been done in this chapter, is dangerous and liable to jeopardize reality. But with the state of statistics in Fiji little else is possible for the moment. However, if the principles and suggestions as outlined in Chapter VI are adopted by the new statistics bureau more comprehensive data may become available and better national income estimates eventuate.

TABLE XXXVII

NET PRODUCT AT FACTOR COSTS, 1958

Output	£000	Income	£000	Expenditure	£000
Agriculture (cash)	8,072	Wages	7,210	Personal: Food	13,800
				Other	9,617
Mining	916	Salaries	3,563		
Building, Engineering, etc.	2,344	Profits, Interest and Rent of Unincorporated Enterprise	7,470	Government Current Expenditure	4,736
Manufacturing and Processing	2,766	Money Income from Agriculture	3,777	Domestic Investment:	
				Private	9,099
				Public	2,431
Wholesale and Retail	3,506	Profits	604	Net Foreign Investment	-3,917
Transport	1,157	Government Property	105	Government Subsidies	161
Catering and Service	2,602	Non-cash Income	6,489	Less: Indirect Taxes	-2,736
Government and Defence	1,622	Income from Abroad	330	Depreciation	-1,873
Finance, Insurance, etc.	1,844			Error of Estimation	-1,770
Subsistence	6,489				
Net Income from Abroad	-1,770				
Net National Output	29,548	Net National Income	29,548	Net National Expenditure	29,548

Source: Tables XXVIII, XXXII, XXXIV and XXXVI.

CHAPTER VI

FUTURE DEVELOPMENT IN NATIONAL ACCOUNTS OF FIJI

National income analysis has become an essential part of applied economics. Its usefulness is growing in every country. In this chapter the role of national income studies in economic and statistical policies of dependent economies is considered in Section 1. In Section 2 the idea of a central statistical agency in the government machinery is mooted. In Fiji where there is limited basic economic information immediate steps are necessary to develop bench-mark statistics. 'Macro-type' censuses for this purpose are discussed in Section 3. To facilitate the study of real changes in the economy methods of price deflation are considered in Section 4.

1. National Accounts in Government Policy

Governments' role in economic development of dependent territories is not the same as that of the governments of some European countries. In Britain's overseas possessions, for instance, governments adopted minimum direct intervention policy in all matters of development within, and, in the international sphere, followed the current economic policy of the United Kingdom.[1] Economic planning was resisted until political pressures from the colony's own articulate groups or from the United Kingdom government had forced them into action on particular issues. A loose control by the government in the economic sphere and the lack of a strong directive from the centre "...sometimes meant that localized action by administrators or technical officers or entrepreneurs had been permitted to cause considerable local upheaval in the life of the community."[2] The validity of this statement is quite pronounced in Fiji. A brief look at its economic history is quite convincing. The disputes of the 1920's, 1943 and 1959-1960 in the sugar industry, the gold mining labour unrest of early 1950's, the oil workers strike, which almost turned into a racial strife, of 1959 are outstanding examples of "local upheavals" of rather unpleasant nature. The immediate causes of these disputes can in most cases be pinpointed. But beneath the surface there were the aged grievances of monopolistic exploitations, social injustice, and, more recently, political aspirations of some groups who have been attempting

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[1] P. Deane, Colonial Social Accounting, Cambridge, The University Press, 1953, p. 5-6.

[2] Ibid.

to establish scapegoats as means to attain their ulterior objectives.

The situation in economic planning somewhat changed since 1940 after Britain's Colonial Development and Welfare Act was passed in that year. Although capital aid from Britain began in 1929[3], between 1929 and 1945 no development plans integrating finances from Britain, local taxation and loans were ever prepared. To allocate funds from the C.D.& W. Act, development plans were initiated in 1945 by the Colonial Office to cover the period 1945-1955 and subsequently five more years, 1955-1960. In the case of Fiji, its plan covered the period 1949-1960 and was to cost £13.8 million, i.e. £3.75 per capita of 1955 population.[4]

"If there was a philosophy behind the development plans, it was that the government's role in the economy was to spend money in the socially desirable directions neglected by private enterprise".[5] The resources to finance the plans apparently seemed of secondary importance. Little correlation existed between aid given (which was according to the poverty or backwardness of an area, or the degree of

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3 Douglas Dosser, "The Formulation of Development Plans in British Colonies" in The Economic Journal, Vol. 69, No. 274, June 1959, p. 255.

4 Ibid.

5 P. Deane, op. cit., p. 6.

development already reached) and the gross domestic product. Why this should have been so is intriguing especially when aids by rich countries, these days are disbursed on the basis of national income of the poor countries. Perhaps British colonial territories did not have the necessary national income data.

Disbursement of aid was also not according to priorities of development projects but on the "bargaining strength of existing interests, usually in the shape of departments of government, or semi-public corporations. For example, if an agriculture department was already strong a greater proportion than otherwise was likely to be devoted to agriculture, whether or not, that sector was relatively under - or over-developed."[6] Such lack of balance between the development of various sectors of the economy has been a common feature in Fiji as in many other territories. Socio-political considerations led to larger 'social' investment compared to 'productive' or 'economic'[7] investment. The Government of Fiji was quite aware of the distortion of balance: "...a study of the balance (in 1952) as between the

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[6] D. Dosser, op. cit.

[7] 'Social' investment is taken here to be in medical services, education and housing; 'Productive' investment: the development of natural resources and communications.

various types of projects showed that...the social services had crept up and were out of proportion."[8] The Burns Commission in 1959 found that social services had been overdeveloped to the neglect of important economic services. And it is only since the report of this Commission that larger proportions of government capital budget are being directed into productive investments which include development of new crops and industries.

In Fiji funds for development are scarce. Local taxation is required for the recurrent government expenditure. The inflexible currency system requires a 100 per cent reserve of sterling securities which have to be purchased each time new issues become necessary. Besides, Government has to maintain reserve funds. The Emergency Reserve Fund has been a constant £140,000 over most of 1950's. But a General Reserve Fund - £323,295 in 1958 - for all contingencies and any shortfalls in the expected revenue must be maintained through contributions from current revenue. Therefore funds at the disposal of government for development purposes from general revenue is limited indeed; in 1958 contribution to capital budget revenue from total revenue of £6,775,403 was £233,544, only 3.4 per cent.

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[8] Council Paper No. 12, 1953, as quoted by D. Dosser, op. cit.

Therefore, Fiji has to resort to loans and aid. Local loans have been reasonably successful in the past. Much of the local savings, both corporate and individual, go into the private sector of capital investment. Businesses expand to maintain their share in the local market which has been growing due to increasing population, among other things. Private individual spendings in the post-war period have predominantly been in residential housing and other consumer durables largely because of emulation, growing awareness of comparative standard of living in other countries, notably in Australasia, and high pressured advertising and salesmanship by corporations which unleashed for the first time consumer credit facilities since early 1950's. Thus with so many outlets for internal savings local loans have been important only relatively.

Overseas borrowings by the government provided substantial capital in the past. But many a times Fiji had to borrow at high interest rates. Charges on public debt in 1958 was £239,227, more than the allocation of funds for capital development from current revenue.

Deficit financing for a country of Fiji's size, political status, social composition and stage of economic development is not always feasible. Even if the rule for 100 per cent sterling reserves for currency issues is relaxed it is not entirely to the credit of Fiji to resort to deficit financing. There are two main reasons for this. Firstly, Fiji's economy is 'open'. Imports of goods and services is 61.4 per cent of gross national expenditure. Secondly, it must demonstrate its national credit through prudent monetary and financial management so that overseas investors are not unduly scared away.

The last source of funds for development available to Fiji is from aid, notably from the United Kingdom government under Colonial Development and Welfare Grants. Laterly, other sources have also been tried the most recent one being aid or loan from International Development Association of Washington, U.S.A.

The quest for aids and loans becomes more fruitful when based on sound development plans, for, then both the seeker and the giver are fully aware of the situation. Sound development plans in turn involve a conscious direction of the economic system and are based on a continuous and systematic assessment of the needs. No other tool but national accounts framework can better provide the necessary background. The per capita tax burden involved in deficit financing can be assessed if per capita national income is known. Fiji's prospects for balanced growth can improve if conscious effort is made to study the entire economy through national accounts.

In discussing the role of national accounting in the statistical policy a consideration of importance to the less developed countries is that the mere attempt to set up a comprehensive set of national accounts directs attention to gaps in basic statistical data which must be filled if these countries are to expand economically with prudent rapidity.[9] National accounts provide an extremely practical tool to appraise actual or proposed schemes for the collection of economic statistics since there is a place for virtually all statistics in the framework. It may not, in the short run, be feasible to establish a complete system of economic reporting. Data collection in such a situation should be adapted to the country's main needs.

Considerable controversy raged during mid-1950's among some British economists with experience in national accounting in British Colonies of Africa. The controversy concerned whether economic statisticians engaged in investigating national income in dependent territories should proceed to the estimation of the aggregates or be involved in developing some sector accounts only which have fairly reliable data. In other words, for public policy purposes which would be more valuable: national aggregates including major components of gross national product and gross national expenditure or input-output tables for a few sectors only?

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9 United Nations, A System of National Accounts and Supporting Tables, New York, 1960, p. 2.

Mr. Dudley Seers[10] of Oxford contended that statistical resources are very scarce in dependent territories.

> The central problem for statistical policy is how to distribute a limited amount of professional skill so that it is of maximum help to those framing economic policy. The optimum distribution can hardly allow many resources to be devoted to purposes which are not of great and obvious value. The onus seems to be on those who believe otherwise to show why national income estimation should receive the high priority it often does. The case for giving it this priority is not self-evident, and certainly does not follow from a general description of the uses of the national income based on experience elsewhere.

He advocated the development of sector accounts rather than aggregates from his experience in national income investigation in Gold Coast, now Ghana.

Mr. Seers' reasons for sectors accounts were as follows: Firstly, the use of statistical resources to estimate the net output of subsistence agriculture is a waste of effort because of arbitrary nature of such calculation. Secondly, policy decisions are better served by concentrating on reliable statistics for a few key sectors and to examine their interdependency by a suitable classification of their mutual transactions.

Dr. A. R. Prest[11] of Cambridge offered three reasons

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10 In his article "The Role of National Income Estimates in the Statistical Policy of an Underdeveloped Country", in Review of Economic Studies, 1952-1953, Vol. 20(3), No.53, p. 159.

11 In his "A Comment" in Review of Economic Studies, 1953-1954, Vol. 21(3), No. 56, p. 223.

against sector accounts idea while he favoured the compilation of national income aggregates. To quote:

> (1) Large grants are currently being disbursed to colonies and the like. Admittedly, national income is an imperfect measure of need; but surely it is one measure.
>
> (2) Many underdeveloped countries have federal constitutions. On what principles should federal grants-in-aid be made in regions? Regional income totals would seem to be the minimum here.
>
> (3) The percentage of income taken in taxes, the unimportance of exports, the unimportance of outpayments in dividends, the absorption of product by capital formation or by Government--these are all policy issues which can only be illuminated by aggregate figures.

Dr. Prest's first reason is obvious. National income total is capable of being used in assessing the needs for aid even if this aggregate is very crude. His second reason is not so applicable to Fiji because there is no 'federal' constitution with regional problems. However, if national income is compiled on the basis of different racial groups, as it was done in the last study, development plans can be formulated so that all races have equal economic opportunities. Dr. Prest's third reason is important because of the allegations about government's tax policy and its role as a competitor to business. Government policy can be better conducted and better understood by all if allegations as these can be checked by reference to an aggregate product total.

Others have come up with compromises about the choice between development of sectors accounts and aggregates. "If the basic policy is full employment - the maintenance of aggregate effective demand at a level equated to aggregate output at full employment - the conventional national income tables are appropriate."[12] If, however, the policy objective is the structure of the economy "so as to break the specific bottlenecks, and achieve a rate of capital formation sufficient significantly to increase output" then sectoral accounts are more useful.

"Aggregate and sectoral accounts are of first-rate importance in the statistical policy of an underdeveloped country because together they form the least unreliable method of providing the administrator with a sense, by no means commonly found, of economic proportions".[13] They also provide a logically consistent intelligence report without which exaggerated notions of relative sizes tend to linger as an obstacle in the way of sound judgment.

A country like Fiji can ill afford to develop sector accounts to the neglect of aggregates. Rather, modest

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[12] W. C. Hollinger, "A Comment" in Review of Economic Studies, Vol. 22(3), No. 59, p. 220.

[13] I. G. Stewart, "A Further Comment" in the Review of Economic Studies, 1954-1958, Vol. 22(3), No. 59, p. 226.

efforts even by "crash" programmes,[14] should be made to develop national income and accounting. These will offer the best return for the limited statistical skill, resources and facilities available. It is unlikely that Fiji can do better without the aggregates in the near future, for the implications of government policy on the economy can be better understood by using national accounts.

2. The Central Statistical Agency

Where statistical services are in a formative stage a central theme as the national accounts becomes highly desirable. It will provide considerable economies in the design of forms, collection of only the relevant information and use of staff, and through avoidance of piecemeal and variable approaches. Better consistency and comparability will follow almost inevitably.

Developing countries usually have two alternatives to establish the statistical system in their administrative machinery, having once recognized that basic statistics are needed and this is better done by the government than by a private firm. The first is a full-fledged department to handle the great deal of the statistical computing previously handled by separate government departments. In some cases

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[14] See Appendix 2.

they may also deal with trade returns, agricultural and industrial censuses, income tax data, and so on.

The second type of statistical agency is a bureau, in essence. It does not take over the statistical functions of the departments but serves as a clearing house. Its duties may include the following: periodical surveys drawing heavily on returns prepared by other departments, construction of index numbers, and preparation of national income and social accounts. Since national accounting data has to be drawn from a number of other government departments the bureau must have a certain amount of control over the type of data issued by these other departments. It will also advise them in all their statistical work and in the preparation of their routine returns. The departments will provide all the field services collection of information being done through questionnaires prepared under mutual consultations. This practice will provide the opportunity of satisfying the interests of both the bureau and the department concerned.

The idea of a statistics bureau rather than a department seems more in line with the needs as well as within means of emerging countries. This is certainly true of Fiji. The statistics bureau, or however it may be called, will entail less financial implications and can begin with a modest staff to pursue immediate needs in the beginning and enlarge its scope of activities as more money and skill become available and need for refined information develop. That the new office will develop its statistical functions within the framework of national income and accounting is clear from the preambles of Fiji's new statistical legislation of 1961 mentioned in Chapter I. This is very encouraging. A lot of reorganization of departmental statistics is imminent so that relevant information is not left out and departments do not repeat statistics to make their annual reports look impressive or professional. Some reorganization also of clerical staff (trained statisticians are few) engaged in statistical duties will have to be done and possibly some in-service training in basic statistical concepts and methods will have to be instituted.

3. Benchmark Statistics

The functions of a statistics bureau of the kind envisaged for Fiji and which has its operations fitted into the framework of national accounts may be summarized as follows:

(a) Periodic compilation and publication of estimates of national income and national accounts taking into consideration the requirements of government departments which use the data.

(b) Study and development of methods used in preparing national income estimates and related aggregates.

(c) Formulation of proposals aimed at improving basic statistics and preparation of special inquiries.

(d) Preparation of special studies in the field of national income as may be required by the government or as part of a research programme.

A country like Fiji which has limited basic information must develop benchmark statistics more than anything else to improve its overall statistical position and also for better year-to-year national income estimates. So far benchmark statistics of population only exist. For agricultural production, ad hoc methods are used, such as estimated acreage, yields and average prices. Industrial production may have more comprehensive statistics but none has ever been published for general use. Labour income statistics are inadequate and of poor coverage. And the estimates of invisible transactions of funds in the balance of payments invariably have been "informed guesses" so far.

With the new statistical legislation institutional statistics can be expected to improve. But the sore spot will still remain in agricultural sector. Perhaps the aid of decennial population censuses could be rallied. A good lesson in this regard can be obtained from Canadian population censuses. The 1961 Census of Population of Canada, besides the usual data on sex, age, marital status, occupation, nationality, etc., common to census schedules anywhere, sought very elaborate information on occupations and industry, job classification, and income. Every fifth dwelling unit was surveyed for dwelling types and household appliances. Every farm holding had separate questionnaires on agriculture, forestry and irrigation: agriculture being divided into dairy, crops, fruits and vegetables, and so on.

With such details gathered in the same operation as the census of population the need for a separate agricultural census is considerably reduced or may even be deemed unnecessary. Besides, there is economy on costs by combining what could be two separate censuses into one single operation. These census results are used for benchmark statistics to facilitate intercensal estimates. Year-to-year changes can be assessed through smaller sample surveys and, when related to the benchmark data, quite reliable statistics for the purpose of national income will be available.

Fiji, with its present practice of decennial population censuses, would do well if thoughts were given to developing the next census, which will be in 1966, into a 'macro-type'. Information on agricultural production both cash and subsistence is an absolute necessity. An industrial census may also have to be conducted separately covering all manufacturing, processing, construction and engineering activities. This would not be very voluminous as industrial enterprises are not many and because of horizontal and lateral integrations the required data can be obtained from a few 'firms'. Such censuses can be repeated every five years with smaller sample surveys every year.

4. Current and Constant Price Estimates

Current price national income totals indicate the changes over time in absolute terms. They do not, however, allow ascertainment of real changes which is only possible through constant price national product estimates.

Constant price estimates[15] used in conjunction with the current price estimates provide valuable information on the impact of price changes on the value of final products. The growth of the economy and the productivity of its factors of production are also assessed through constant price estimates.

There are three main methods[16] of translating national income estimates from current to constant prices, or

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[15] Dominion Bureau of Statistics, National Accounts, Income and Expenditure, 1926-1956, Ottawa, Queen's Printer, 1958, p. 177.

[16] Paul Studenski, The Income of Nations, Part II, New York, New York University Press, 1961, p. 58.

"deflating" them as it is commonly called. They are as follows:

(a) Deflation of the annual totals by a cost of living index consisting of weighted retail prices, or by an index of weighted wholesale prices -- in either case expressed as a relation to the prices of a given year taken as 100. This method is simpler but less accurate because cost of living index is a good deflator of private consumption only and is not appropriate for government services, investment outlays or transactions with the rest of the world.

(b) Separate deflation of different parts of the national income by different indexes specially related to them. This is more difficult but gives more reliable results. The Canadian adaptation of this method in fairly refined form is as follows: First, obtain a breakdown of value series in as much detail, itemwise, as possible. Second, deflate each item with a price index that has been selected or constructed so that its commodity content and weighting pattern will correspond with that of the value data. Each item so deflated is then expressed in constant price. Third, sum the detailed items in constant price to derive the main aggregates: personal expenditure, government expenditure, etc. Gross national expenditure in constant price is arrived at by this summation process. If the current price series are then divided by the constant price series at the aggregate level this process will yield a set of implicit price indexes which are currently weighted.[17]

(c) Direct computation of the annual physical output of goods and services and the application to them of the prices of the base year. This is most complicated but most reliable too. Few countries have used this method so far.

A point to be noted briefly about deflation is that it may produce reliable results for only a limited period of time. Longer series will involve changes not only of prices but also changes arising out of technological progress, changes in consumption and spending patterns and variations in the importance of sectors in the gross national expenditure.

For Fiji, when national income series have been estimated for a number of years, deflation must, of necessity, be by the first method. If the trend of economic growth in real terms for the years prior to 1958 have to be studied, the deflation process is still further complicated for the lack of a 'national' cost of living index series.[18] For post-1958 period deflation ought to be from the new

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[17] Dominion Bureau of Statistics, op. cit., p.177.

[18] See Chapter I, Section 4.

national series organized by the Department of Labour since 1958. Deflation by implicit price indexes, as is done in Canada, can, for the moment, be taken as a long-term objective only.

SUMMARY AND CONCLUSIONS

Economic statistics available in Fiji at the moment are of rather poor quality due to inadequate coverage. Methods of collecting economic data are haphazard and unco-ordinated resulting in duplications of efforts for no real gain.

It is therefore contended that a methodological national accounting framework will serve two purposes. Firstly, it will co-ordinate hitherto independent collection of statistics by separate government departments so that the purpose of national income investigation is coherently served.

Secondly, the dire need for national income and social accounts will be satisfied. Any economy, more so the emergent one, needs comprehensive information on its past and present performances so that future policies can be formulated in a way that yield maximum benefit to every citizen.

Fiji's gross domestic product in real terms has been growing at a rate not much above its population growth. Therefore it is imperative that Fiji will have to accelerate its economic growth in order to achieve any improvement in the standard of living of its peoples.

The overall financial provision, equipment and skilled personnel available for collection and compilation of statistics are limited. It will therefore be in the best interest of Fiji to organize a central statistical agency forthwith as a part of the entire government machinery. Reliable economic information will be the dividend derived from such an agency. Benchmark statistics, mainly through periodic censuses, also need immediate development so that intercensal estimates are facilitated at all times. The few skilled personnel can then be spared from the routine of national income investigations for the much needed research in techniques, and concepts which are characteristic to the emerging countries such as Fiji.

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United Nations, Measurement of National Income and the Construction of Social Accounts, Geneva, 1947, with a Memorandum, "Definition and Measurement of the National Income and Related Totals" by Richard Stone, as an Appendix, 116 p.

Authoritative exposition of social accounting techniques for adoption by all member countries of the U.N.

United Nations, A System of National Accounts and Supporting Tables, New York, 1960, 45 p.

This is an improved version, based on comments from member governments, of the earlier A System of National Accounts and Supporting Tables (Series F, No. 2, 1953). It tries to ensure greater comparability among countries which follow the techniques expounded.

APPENDIX 1

STATISTICS COLLECTED BY GOVERNMENT DEPARTMENTS

Statistics on subjects indicated are collected by various Departments of the Government in the course of their administrative functions and published in their Annual Reports. Prisons and Judicial departments are not included in this list. Details of statistics in Commerce and Industries Office are also not available.

Department	Statistics Concerning
Agriculture	Acreage cultivated. Exports of Principal Crops. Sugar: acres harvested, cane crushed and exports of sugar. Disposal of Copra. Banana Exports. Dairy Products: locally produced and imported. Exports of Shells, and Hides and Skins. Slaughter-house statistics of cattle, pigs and goats. Tuberculin Testing in Livestock. Department's Revenue and Expenditure.
Forestry	Forest Acreage. Production of Timber and Fuel Wood. Imports and Exports of Timber, Wood Products and Minor Forest Produce. Department's Revenue and Expenditure.

	Staff of the Department.
Agricultural & Industrial Loans Board	Total loans: Classification by Purpose of Loans and Race of Borrowers. Income and Expenditure Account, and Balance Sheet.
Registrar of Co-operative Societies	Statement of Assets and Liabilities by Types of Societies.
Education	Schools and Enrolment. Teachers by Grade of Schools. Enrolment by age distribution. Source and Allocation of Departmental Votes.
Inland Revenue	Analysis of Income Tax Assessments, Assessments by Races, Secondary Tax Assessed. Total Individual Tax Assessed, Assessments by Classification of Sources. Analysis of Assessable Income and Tax Assessed by Industry Groups and Individual Taxpayers.
Land, Mines and Surveys	Financial Summary of the Department: Revenue and Expenditure. Land holdings by Races. Fijian Ownership of Land. Exports of Manganese. Value of Annual Production from Mines and Quarries. Royalty Payments. Employment in Mines and Quarries.
Labour	Distribution of Wage Employees by Industry, Race and Wage Groups. Distribution of Wage

	Employees by Industry, Sex and Wage Groups. Occupational Distribution of Wage Employees. Industrial Wage Employees Housed and/or Rationed by the Employers and of Juveniles by Sex. Seekers of Employment and Job vacancies notified to the Department. Government Technical and Vocational Training. Retail Prices of Necessary Commodities: January and December. Industrial Accidents. Strikes. Unions and Membership.
Medical	Rural Attendance of the Sick. Infectious Diseases. Vital Statistics: Population Estimates, Births Registered, Death Recorded, Infant Mortality, Marriages. Diseases according to WHO Classification.
Police	Crime Analysis: Cases Reported and Dealt With, Persons Dealt With, Traffic Cases: Accidents, Prosecutions. Other cases. Strength of the Force. Migration Statistics. Movements of Ships and Aircraft.
Government Savings Banks	Accounts opened and closed. Total Deposits and Withdrawals. Comparative Statements of Deposits. Accounts and Transactions. Income and Expenditure Accounts.

	Balance Sheet. Statement of Investments.
Public Works Department	Departmental Revenue. Unallocated stores. Buildings: New Construction. Road Traffic Census. Roads-New Construction and Major Reconstruction. Water Supplies Statistics. Navigational Aids Maintenance. Government Vessels and Floating Stock.
Posts and Telegraphs	Departmental Revenue and Expenditure. Letters Handled. Money Order Transactions. Telegraph Money Orders. Wireless Receiving Licences. Estimated Value of Free Service to Government Departments.
Customs	Statistics of Imports, Exports and Re-Exports, by Commodity and by Country, usually for five years at a time. Shipping and Cargo handled. Vessels Registered with Fiji Marine Board. Aircrafts Movements.
Registrar General	Revenue collected by the Department. General Documentary Registrations. Registration of Companies. Records of Dealings in Land Titles. Annual Population Estimates. Comparative Annual Rate of Increase of Population by Race. Age-distribution of year-end population estimates.

	Registration of Births: by Age of Mother and Parity of Births. Crude Birth Rates. Still Births. Fertility Rates. Gross Reproduction Rates. Marriages. Crude Marriage Rates. Deaths. Death Rates. Infant Mortality. Specific Death Rates by Age. Standardized Rates.
Account General	Sources and Disbursements of Government Revenue According to Budgetary Votes - Current and Capital Expenditure. Loans Made by the Colony. Statement of Investments by Fiji by Category of Funds. Loan Expenditures. Accumulated Sinking Funds.

APPENDIX 2

NATIONAL INCOME ESTIMATES BY "CRASH" PROGRAMME[1]

The need for national income figures for as recent a period as possible is obvious irrespective of whether the estimates are made by regular method or by "crash" programme. If "crash" programme is used the results may largely be for official consumption; or if it is decided that the public should also benefit the figures may be published but its preliminary nature fully explained.

According to present practice the annual departmental reports, which contain most of the available statistics in Fiji, for year t are published in year t+1, in some cases even in year t+2. The case of Inland Revenue Department which handles income tax and taxable income statistics is peculiar due to the existing method of income tax payment. Fiji does not follow the pay-as-you-earn system. Rather the practice is income tax returns concerning year t-1 are submitted in year t and the Department's analysis is published in year t+1. The first major reorganization of government statistics apparently must be in this department, and the

[1] Miss C. O'Loughlin, The Economy of British Guiana 1952-56, Jamaica, W.I., University College of the West Indies, 1959, p. 99.

possible introduction of P.A.Y.E. system. The task is enormous but some help in the way of experience could be obtained from New Zealand which recently adopted the system.[2] The system will reduce the lag between earning of incomes and publishing their analysis by one year.

The "crash" programme involves the application of broad indicators to the overall pattern of estimates made for the latest year in which a thorough survey was made. "Crash" estimates of national income, for the year t, can be prepared and issued in the middle of year t+1. Such estimates can be done as a final exercise of the more thorough survey for year t-1. In producing them no great deal of time and labour will be required.

"Crash" estimates of gross domestic product is as follows. The economy is considered on the basis of the main industries. For each industry there should be a sector account with complete figures from the latest thorough estimates, i.e. year t-1. Each sector account will take the following form:

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[2] See paper, "Problems of National Accounting", contributed by New Zealand to the 5th Conference of British Commonwealth Statisticians, Wellington, Nov. 7th to 18th, 1960.

SECTOR ACCOUNT - INDUSTRY A

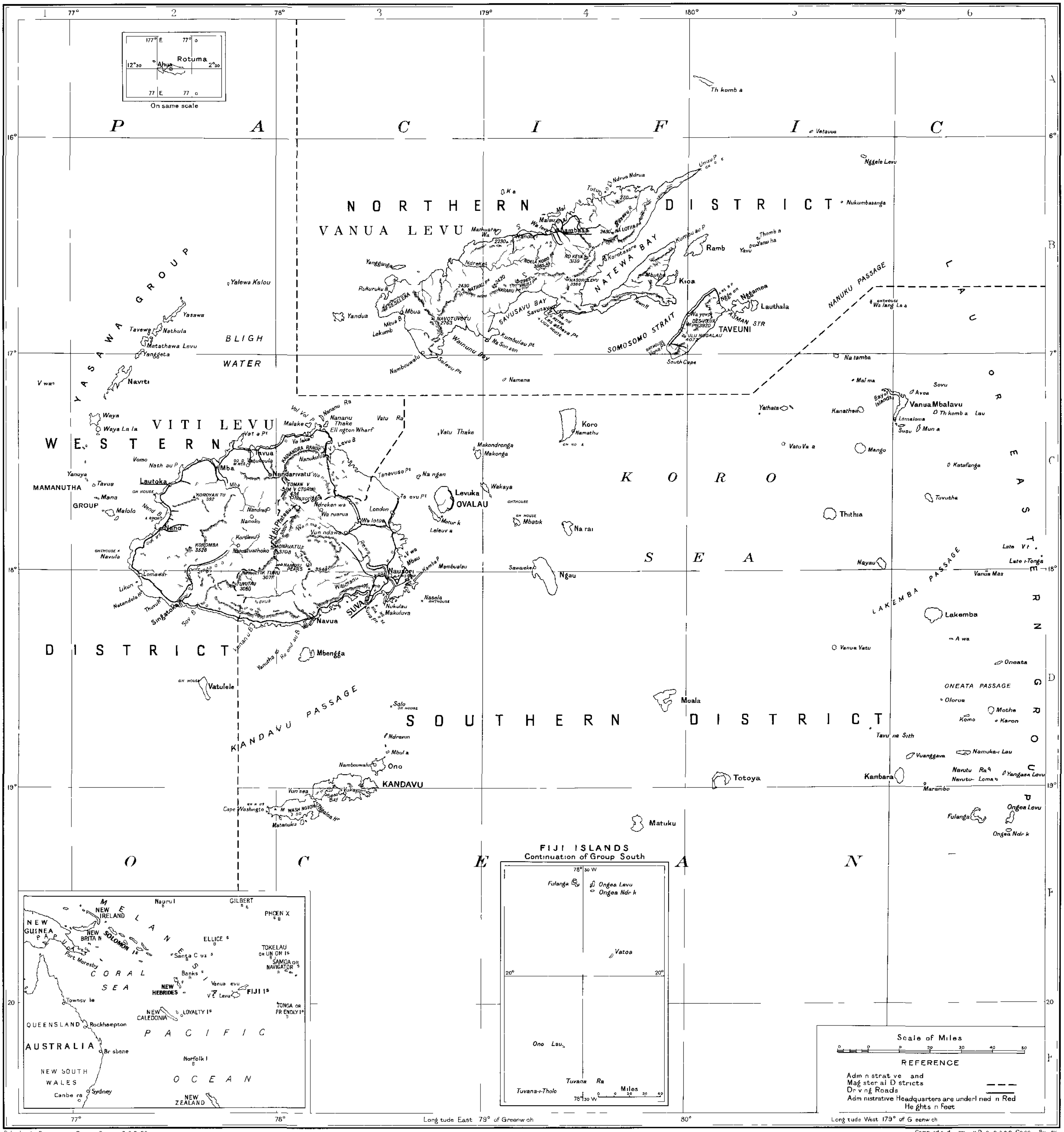
Receipts	Expenditures	
	b. Wages and Salaries	X%
	c. Payments to other Sectors	Y%
	d. Profits, rent, etc. (incl. stock change)	Z%
a. Total Receipts 100	e. Total expenditures	100

The assumption to be made is that in year t <u>total</u> receipts will alter from that of year t-1 but that the pattern of disposal will remain constant. However, if evidences are that any component, e.g. wages, have substantially changed the above assumption must be modified.

Generally speaking the main indicator required is total receipts for each industry. In some cases this may be arrived at by obtaining physical output and raising this by the price of the product. Crop intelligence report of agricultural officers, market reports, forecasts of all types, price indices and indices of other activities such as building construction--all these will help determine the trend in total receipts. Good judgment, however, is an absolute necessity.

From the gross domestic product, broad estimates of national income may be derived on the basis of import and export figures and banking statistics on external transactions.

Ideally national income totals for the year t-1 should be published about June of year t+1 and "crash" estimate for year t, as 'projection for year t', either simultaneously or immediately after. The strict provisional nature of the "crash" estimate must be emphasized if published for general use; users in government circles are expected to know about this. June is stipulated because Fiji's annual national budget is presented in November.



P A C I F I C
O C E A N
NORTHERN DISTRICT
VANUA LEVU
WESTERN DISTRICT
VITI LEVU
SOUTHERN DISTRICT
KORO SEA
YASAWA GROUP
LAU OR EASTERN GROUP
BLIGH WATER
NATEWA BAY
SAVUSAVU BAY
SOMOSOMO STRAIT
NANUKU PASSAGE
LAKEMBA PASSAGE
ONEATA PASSAGE
KANDAVU PASSAGE
MAMANUTHA GROUP
Lambasa
TAVEUNI
Lauthala
Rotuma
On same scale
Lautoka
Mba
Tavua
Nandarivatu
Nandi
Singatoka
Navua
SUVA
Nausori
Levuka
OVALAU
Koro
Ngau
Wakaya
Mbengga
Vatulele
KANDAVU
Ono
Moala
Totoya
Matuku
Lakemba
Vanua Mbalavu
Mango
Thithia
Kambara
Oneata
Fulanga
Ongea Levu
FIJI ISLANDS
Continuation of Group South
Vatoa
Ono Lau
Tuvana-i-Tholo
NEW GUINEA
NEW IRELAND
NEW BRITAIN
SOLOMON IS
GILBERT
ELLICE
TOKELAU
SAMOA OR NAVIGATOR
FIJI IS
TONGA OR FRIENDLY IS
NEW HEBRIDES
NEW CALEDONIA
LOYALTY IS
CORAL SEA
QUEENSLAND
AUSTRALIA
NEW SOUTH WALES
Sydney
Brisbane
Rockhampton
Port Moresby
Norfolk I
NEW ZEALAND
Scale of Miles
REFERENCE
Administrative and Magisterial Districts
Driving Roads
Administrative Headquarters are underlined in Red
Heights in Feet
Longitude East 179° of Greenwich
Longitude West 179° of Greenwich