මාණ්ඩලික පත්‍රිකා
STAFF STUDIES

ශ්‍රී ලංකා මහ බැංකුව
CENTRAL BANK OF CEYLON

කාර්ය මණ්ඩල අධ්‍යයන

STAFF STUDIES

ශ්‍රී ලංකා මහ බැංකුව

CENTRAL BANK OF CEYLON

6 වැනි කාණ්ඩය	1976 අප්‍රේල්	1 වැනි කලාපය
Vol. 6	April, 1976	No. 1

CONTENTS

The views presented in these papers are those of the authors and should not be interpreted as necessarily, indicating the views of the Central Bank of Ceylon.

CONTENTS

Notes on Contributors

Terrence Saundranayagam	—	Senior Economist, Social Accounts Division, Economic Research Department.
Dr. P. A. S. Dahanayake	—	Senior Economist, Economic Development Division, Economic Research Department.
Sirimevan Colombage	—	Economist, International Finance Division, Economic Research Department.
M. R. Fernando	—	Senior Economist, Economic Indicators Division, Economic Research Department.
U. Vidanapathirane	—	Economist, Money & Banking Division, Economic Research Department.
Gratien Jayamaha	—	Economist, Public Finance Division, Economic Research Department.
Dr. Gamini Abeysekera	—	Economist, Public Finance Division, Economic Research Department.
Dr. Wimal Hettiarachchi	—	Senior Economist, Money & Banking Division, Economic Research Department.
Dr. H. N. S. Karunatilake	—	Director of Economic Research, Economic Research Department.

SRI LANKA'S GROSS NATIONAL PRODUCT 1950 - 1958[1]

TERRENCE SAVUNDRANAYAGAM

The aim of this study is to make an estimate of Gross National Product for the years 1950 to 1958 using as far as possible the same sources and methods used in the Central Bank's series from 1959 onwards.

While estimates of Sri Lanka's National Income in the 1960s have been improved both as regards methodology and the reliability of data used one serious drawback has remained. This is the lack of a consistent series on National Income, going back before 1960. This study seeks to go some way in remedying this statistical hiatus by making an estimate of Gross National Product for the years 1950 to 1958 which would be comparable with the Central Bank's series from 1959 onwards. It may be useful firstly, to briefly review the estimates of Gross National Product made in the late 1940s and in the 1950s.

The first set of National Income estimates of Sri Lanka was published by Dr. B. B. Das Gupta and covered the years 1937, 1938, 1942, 1943 and 1948[2]. In 1949 Mr. K. Williams who was then the Director of Census and Statistics published what came to be the first official estimates of Sri Lanka's National Income[3]. Williams estimated two separate aggregates, Gross National Product and Gross National Expenditure which were however identical by definition. His estimate of Gross National Product was the sum of ten separately computed items: 1. Domestic exports, 2. Locally produced articles consumed in Ceylon, 3. Trade, 4. Transport, 5. Professions, 5. Personal and Domestic Services, 7. Rent, 8. Capital Development, 9. Government and 10. Income from abroad.

---

1. The preparation of this study required a large amount of work mainly the collection and processing of data from a number of sources and the classification of data available in the Customs Returns, the Census Reports and the Public Accounts. For assistance in all this, I am grateful to Mr. K. A. D. P. Kariyapperuma, Mr. M. I. M. Hussain and Miss Hyacinth T. Perera. I am also grateful to Dr. Thilak Ranaweera for reading through the script and making useful comments.

2. These estimates were published as an appendix to the Report of the commission on social Services — Sessional Paper XII of 1949.

3. K. Williams, The National Income of Ceylon.

William's system recognised the basic structure of Sri Lanka's economy as well as the data available at the time. He therefore made separate estimates of income arising in the modern sector and the traditional sector. Income originating in the export sector was estimated chiefly from the Customs returns as total value of exports less the value of imported inputs used. The value of imported inputs was estimated as 50 per cent of the value of fertilizer inputs and 100 per cent of imports of tea chests and certain chemicals. The distribution costs before exports reached Customs were also included in this estimate.

The data available at the time precluded any direct estimate of the value of goods and services produced in the domestic (or non-export) sector. The main sources of data for this estimate were the 1946 Census Report, which also gave estimates of incomes of persons in various economic categories and the Public Accounts. Three per cent of total production was added on under the item 'other' to cover production not already accounted for. Income from abroad, foreign travel and investment income as well as private donations and immigrant transfers were added to the total value of production in the export and non-export sector to obtain Gross National Product.

These estimates were revised by the Department of Census and Statistics and estimates of Gross National Product using William's method were made available for the years 1938 and 1945 to 1960. The Census Department revised these estimates for the years 1963 to 1965, so that the series upto 1962 was not comparable with the estimates from 1963 onwards.

The main impetus towards an improvement of National Income estimates in the 1950s came from the National Accounts Questionnaire sent out by the Statistical Office of the United Nations[1]. The census Department's estimate of Industrial Origin of Gross National Product, was probably arrived at by disaggregating Williams estimates and making appropriate adjustments. The exact sources and methods used

---

1. At that time the Census Department replied to 6 of the 9 tables asked for in the questionnaire. 1 Expenditure on Gross National Product 2 Industrial Origin of Gross Domestic Product. 3 Distribution of the National Income. 4 Composition of Gross Domestic Capital Formation 5 Composition of Private Consumption expenditure and 6 External Transactions.

in estimating this table are not available[1]. This estimate was revised in 1958 and again 1963, but no attempt was made to make the estimates in the old series consistent with the revised estimates. In fact two separate estimates of Gross National Product have been published for the years 1953 and 1963. Beginning with 1963, the Department of Census and Statistics has published a revised estimate of Gross National Product by industrial origin[2].

A series on Industrial Origin of Gross National Product for the period 1950 to 1960 was estimated by Donald Snodgrass[3] for the Economic Growth Center of Yale University. This series was based largely on the Census Department's estimate – "The two tables are in fact identical except for three points of deviation. The items "construction" and "ownership of dwellings" have had added to them rural subsistence construction and rural house rents respectively. Any other deviations.....................are mainly explained by differing treatment of taxes and subsidies"[4]. The series of the Economic Growth Center has not been extended beyond 1960, as far as we are aware.

Dr. M. R. P. Salgado made an estimate of Sri Lanka's national income in the years 1939 to 1954 for his Ph.d. dissertation. I have not been able to refer to this work.

A detailed estimate of Gross National Product was first published in the Central Bank's Annual Report for 1958. The estimates of Gross National Product published from 1959 to 1965 were a comparable series. Upto 1965 the Central Bank's series was estimated as the sum of net output of the export sector and the domestic sector. Estimates of Gross National Product were shown under production for export and production for domestic use.

---

1. "There is no written manual of procedure on this matter and each occupant of the relevant office in the department has had to devise his own methods" Donald R. Snodgrass – Ceylon. An export economy in transition (1966) Richard D. Irwin Inc. Homewood – Illinois. footnote page 254.

2. Statistical Abstract of Ceylon – 1967/1968 also, Dept. of Census and Statistics, National Accounts of Ceylon 1963 to 1968 published 1970.

3. Donald R. Snodgrass "Ceylon: An export economy in transition" - table A8 page 279.

4. Donald R. Snodgrass – op. cit. page 254.

The sources and methods used in preparing these estimates have been outlined in the Technical Note on National Product and Expenditure, in the Bank's Annual Report for 1961. Broadly, the estimates improved both the quality and the coverage of the data used. This series therefore constituted a significant improvement on William's system. The Central Bank first published an estimate of Gross National Product by industrial origin in its Report for 1966. This estimate was further revised in 1967 to conform as far as possible with the format recommended by the United Nations[1]. The Bank also provided a comparable series of Gross National Product by industrial origin from 1959 to 1967. The estimates of Gross National Product published by the Bank in subsequent years has used the same sources and methods as given in the Bank's "Technical Note on National Product and Expenditure" in its Annual Report for 1967[2]. The quality of some of the data used has of course been improved over the years.

Gross National Product: 1950-1958

The series of Gross National Product from 1950 to 1958, which is presented in this article uses the same sources and methods as outlined in the Technical Note referred to above. In addition, estimates of Gross National Product at constant prices have been based on the year 1959 so as to make it comparable with the Central Bank's series of real Gross National Product. A detailed description of the sources and methods used have been given in the appendix. These estimates are based largely on data available in the Statistical Abstracts of Ceylon, the Public Accounts, the Census Reports for 1946 and 1953 and on the Central Bank's Survey of Consumer Finances 1953. The deflation of current price estimates did present some difficulty however largely because the indices used to deflate the Central Bank's series could not always be used. To a large extent this was overcome by using the Cost of Living Index (Domestic Group). The indices used to deflate each sub group have been given in pages 5 43 & 44 of the appendix.

A comparison of the estimates of Gross National Product made in this study with other available estimates is made in Table I. The estimates in this table are shown at current factor cost prices and at

---

1. A system of National Accounts and Supporting Tables-UN New York-1958.
2. Central Bank of Ceylon Annual Report 1967 page 38.

constant 1959 prices[1]. A detailed estimate of Real Gross National Product giving a breakdown by industrial origin, has not been made earlier. Dr. Rasaputram has, however estimated Gross National Product at constant (1948) prices for the years 1938 and 1947 to 1954[2], while Mr. Snodgrass has made an estimate of total Gross National Product at 1953 prices for the years 1950 to 1960[3]. The relevant estimates from 1950 onwards, are also shown in the table.

These estimates show very large falls in Gross National Product measured at current prices and smaller but significant declines in real Gross National Product in the years following the Korean boom of 1951 and the tea boom of 1955. This is probably due to the fact that these estimates have not adequately covered productive activity in all sectors of the economy. Our estimates show that while Gross National Product at constant (1959) prices did reach a high level in 1951 (following the Korean boom) and in 1955 (following the increase in tea prices in 1954 and 1955) this was not followed by a fall in real Gross National Product in the years immediately following. Mr. Snodgrass' estimates show a fall in real Gross National Product in 1956 and 1957 and a marginal increase in Gross National Product in 1952. Dr. Rasaputram's estimates show a fall in real Gross National Product in 1953 while his estimate for 1954 is only marginally above his estimate of Gross National Product in 1952. Our estimates show that real Gross National Product has increased in each of the years since 1950, although the increase in 1956 and 1957 has been marginal. The fall in Gross National Product at current factor cost prices in 1951 is explained by the fact that the high prices following the Korean boom did not continue after 1951.

1. The current price estimates shown are those of the Department of Census and Statistics (the revised Williams estimates) and the estimates made by Mr Donald Snodgrass for the Economic Growth Center of Yale University (See Ceylon, An export Economy in transition - Richard D. Irwin Inc. Homewood Illinois 1966-Table A8 page 279). We have added net factor income from abroad to Mr. Snodgrass' estimate of Gross Domestic Product at current factor cost prices.

2. W. Rasaputram : Gross National Product of Ceylon at constant (1948) prices. Central Bank of Ceylon - Bulletin - January, 1956. Dr Rasaputrams estimate was based on the current factor cost price estimate of the Department of Census and Statistics. He has also made an estimate of Sri Lanka's "Real Geographical Product" for the years 1926 to 1957:, see W. Rasaputram: The influence of foreign of trade an the level and growth of Ceylon's National Income 1926 – 1957 Central Bank of Ceylon – 1967.

3. D. Snodgrass – op.cit. table A3 page 271.

Table 1

Estimates of Gross National Product by Industrial Origin

(Rs. Million)

	1950	1951	1952	1953	1954	1955	1956	1957	1958
A. Gross National Product at Current Factor Cost Prices									
1. Census and Statistics Dept.	3868	4619	4507	4491	4748	5234	5096	5200	5493
2. Economic Growth Centre	3887	4549	4260	4557	4703	5411	4820	5157	5463
3. Estimates made for this study	3999	4546	4385	4685	4974	5245	5242	5421	5662
B. Gross National Product at Constant Prices									
1. Economic Growth Centre (at 1953 prices)	4003	4520	4660	4901	4934	5291	4852	5219	5549
2. Dr. Rasaputram's Estimates (at 1948 prices)	3355	3541	3731	3639	3779				
3. Estimates made for this study (1959 prices)	4465	4822	5059	5108	5256	5584	5601	5679	5779

Sources: — 1. Dept. of Census & Statistics Statistical Abstracts of Ceylon.

2. W. Rasaputram: Gross National Product at constant (1948) prices:
   Central Bank of Ceylon Bulletin — January 1956.

3. D. Snodgrass: Ceylon, An Export Economy in Transition — Richard
   D. Irwin Inc: Chicago, Illinois 1966.

The rates of growth of Gross National Product at both current and constant prices as obtained from our estimates is given in the table below.

Table 2

Rates of Growth of Gross National Product

	1951	1952	1953	1954	1955	1956	1957	1958
At current factor cost prices	13·7	−3·5	6·8	6·2	5·4	−0·1	3·4	4·4
At constant (1959) prices	8·0	4·9	1·0	2·9	6·2	0·3	1·4	1·7

It is seen that the highest increases in Gross National Product have been registered in 1951 and in 1955. At the same time the average rate of growth of Gross National Product has been higher in the first half of the 1950s. The reasons for this can be traced to the performance of the agriculture sector and especially to the contribution of export agriculture to Gross National Product.

The predominance of agriculture in the economy, can be observed from the close correspondence between the growth of the agriculture sector ond the growth of Gross National Product. The

Table 3

A comparison of rates of growth of Gross National Product and value added in the agriculture sector

	1951	1953	1955	1957	1958
A. At current factor cost prices					
1. Gross National Product	13·7	6·8	5·4	3·4	4·4
2. Agriculture, Forestry, Hunting & Fishing	9·6	6·7	6·0	−0·2	3·9
B. At constant (1959) prices					
1. Gross National Product	8·0	1·0	6·2	1·4	1·7
2. Agriculture, Forestry, Hunting & Fishing	4·3	−1·9	6·7	−0·3	3·3

direct influence of agriculture in total Gross National Product is however not immediately apparent from this. This is because the processing of tea, rubber and coconut is included as a manufacturing activity in our estimates. At the same time a significant part of the contribution of the trade and transport sectors is also derived from agriculture. The contribution of the agriculture sector to Gross National Product is seen from the table below. It must be noted however that a number of service activities as well as Government activity is directly or indirectly related to agriculture. Thus it is safe to conclude that in the 1950s, the agriculture sector accounted for nearly 70 per cent of productive activity in the economy.

Table 4

The Direct Contribution of Agriculture to
Gross National Product – at constant (1959) prices

		1950	1955	1958
1.	Agriculture, Foresrty, Hunting & Fishing	1871	2288	2270
2.	Processing of Plantation Crops	310	345	362
3.	Transport	119	126	123
4.	Trade	317	437	331
5.	Total	2617	3196	3086
6.	Gross National Product at constant (1959) prices	4465	5584	5779
7.	5 as percentage of 6	58·6	57·2	53·4
8.	Export agriculture	1506	1860	1722
9.	8 as percentage of 6	34	33	30

The concomitant of the predominance of the agriculture sector was the close dependence of the economy on the exports of tea, rubber and coconut. As seen from table 4 the proportion of Gross National Product which can be directly traced to exports amounted to over 30 per cent in the 1950s. The influence of exports on the Sri Lankan economy was however much higher than is indicated by this ratio. This is because prosperity in the export sector had an indirect effect on income and employment in all other sectors. It is necessary therefore to trace the relation between exports and Gross National Product during this period.

In the early 1950s the trend in commodity prices was upward. Tea prices which were pegged below their market level during the war years showed a rising trend from the late 1950s. The biggest increases in tea prices however came in late 1954 and 1955. Rubber and coconut prices increased in spectacular fashion as a result of the Korean war. The prices of rubber and coconut products more than doubled from their earlier levels in 1951 and early 1952. Although prices declined from 1952 onwards they were still higher than in the pre-Korean war years. Data on production and prices are given in table 10.

These trends in export commodity prices acted as a strong incentive to increase production. This was particularly true of rubber production. Producers of rubber responded quickly to high prices partly by bringing in idle trees into production but mainly by the slaughter tapping of all available trees. The production of tea and coconut also adjusted to the increase in prices, but with a lag.

The producer response to high prices had an important effect on the growth of Gross National Product. The slaughter tapping of rubber had an adverse effect on the level of production in later years. In the case of tea the lagged response to the relatively high prices of 1950 and 1951 served the industry well when tea prices rose from about 1953 to the peak levels of of 1954 and 1955. Coconut production too increased gradually from about 1952 and reached its highest level for the decade in 1955. This combination of prices and high production contributed to a very favourable rate of growth of Gross National Product in the first half of the 1950s.

After 1955 however the trend in export prices was downward. At the same time only tea production increased significantly from its level in the early 1950s. Rubber production was around the same level as in the 1950s while coconut production dropped from its 1955 level. Given the importance of export agriculture, the increase in Gross National Product was therefore much smaller after 1955. Thus the marginal rate of growth in Gross National Product in 1956 and 1957 as shown in our estimates, is mainly due to the fact that the rate of growth of the agriculture sector which is influenced to a large extent by the performance of export agriculture, was negative in these two years.

The performance of the export agriculture sector had an important influence on the rest of the economy. Our study of Gross National Product in the years 1950 to 1958 has shown that the level of activity in the domestic sector was highest in the years following high export prices. This was particularly true of the construction and services sectors. On the other hand the decline in the value of output of the manufacturing sector in 1952 and 1953, reflects solely the fall in value added in the processing of rubber and coconut consequent on the drop in export prices.

Both production and prices in the domestic agriculture sector (paddy, subsidiary food crops and fruits and vegetables) increased gradually throughout the 1950s. Paddy production was influenced largely by government incentives such as the guaranteed price scheme and the fertilizer subsidy scheme. At the same time the increased pressure of population on available land served to encourage the use of improved methods of cultivation. Production of subsidiary food crops however did not receive the same amount of encouragement from the State, and increased at a slower pace.

Thus, while export agriculture exerted a strong influence on the economy the increase in production in the domestic sectors was sufficient to ensure a positive rate of growth of real Gross National Product.

Real National Income

Table 7 shows estimates of "Real National Income", i·e· Gross National Product at constant (1959) prices adjusted for changes in the terms of trade. The influence of high export prices on the economy is apparent from this table. Thus it is seen that real national income has been highest in years of high export prices. The loss of resources due to changes in the terms of trade, after 1955 has been lower than in the early years of the decade mainly due to the fall in the import price index. (Since the terms of trade effect measures the rate at which Sri Lanka's exports exchange for her imports, an increase in export prices or a fall in import prices will reduce the net outflow of resources from Sri Lanka).

Table 5

The Terms of Trade (1959=100)

	1950	1951	1952	1953	1954	1955	1956	1957	1958
Import price Index	99	120	93	94	165	110	103	98	97
Export Price Index	88	112	112	112	104	100	100	106	98
Terms of Trade	111	106	82	84	101	109	102	92	98

Source: Central Bank of Ceylon.

According to our estimates real national income increased by 24·2 per cent in the period 1950 to 1958. The increase in real National Product in the same period was 29·42 per cent. It is significant however that for the years 1956 to 1958 real national income increased by only 2·0 per cent while real national product increased by 3·2 per cent.

Table 6

Gross National Product at Current Factor Cost Prices

(Rs. Million)

	1950	1951	1952	1953	1954	1955	1956	1957	1958
1. Agriculture, Forestry, Hunting & Fishing	1,613.9	1,768.6	1,765.9	1,884.4	2,095.5	2,220.7	2,127.8	2,122.7	2,205.5
2. Mining & Quarrying	16.7	21.4	22.5	23.0	22.1	24.3	34.3	34.0	27.3
3. Manufacturing	630.1	742.2	438.1	551.6	647.5	621.7	568.8	586.4	623.9
4. Construction	142.1	178.0	218.1	221.8	200.9	222.9	296.9	297.6	274.0
5. Electricity Gas, Water & Sanitary Services	5.8	5.9	6.0	6.3	6.6	6.8	7.3	8.6	9.0
6. Transport, Storage & Communication	372.2	440.3	452.0	468.9	453.5	454.5	493.2	525.5	537.6
7. Wholesale & Retail Trade	543.2	690.4	712.4	693.5	656.5	734.8	689.6	756.3	740.5
8. Banking Insurance & Real Estate	34.5	39.3	37.7	40.2	42.8	45.2	45.1	46.7	48.8
9. Ownership of Dwellings	141.0	148.3	151.4	156.1	161.2	168.4	172.9	181.2	193.3
10. Public Administration & Defence	121.7	125.2	147.0	171.6	194.2	224.1	239.6	257.7	283.9
21. Services n. i. e.	433.0	450.3	479.5	505.4	539.9	582.8	616.7	657.3	758.7
12. Gross Domestic Product	4,054.2	4,609.9	4,430.6	4,722.8	5,020.7	5,306.2	5,292.2	5,474.0	5,702.5
13. Net Factor Income from abroad	-55.0	-64.2	-45.5	-37.8	-46.6	-61.3	-49.8	-52.6	-40.7
14. Gross National Product	3,999.2	4,545.7	4,385.1	4,685.0	4,974.1	5,244.9	5,242.4	5,421.4	5,661.8

Table 7

Gross National Product at (Constant) 1959 Prices

(Rs. Million)

	1950	1951	1952	1953	1954	1955	1956	1957	1958
1. Agriculture, Forestry, Hunting & Fishing	1,870·8	1,951·3	2,047·3	2,008·3	2,144·5	2,288·1	2,203·6	2,198·1	2,269·6
2. Mining & Quarrying	27·0	27·9	29·0	29·3	28·3	30·9	42·9	42·0	35·9
3. Manufacturing	629·6	606·0	601·6	608·5	615·9	649·6	639·6	661·7	703·7
4. Construction	158·2	194·3	235·5	241·1	222·2	244·7	320·6	306·5	271·0
5. Electricity, Gas, Water Sanitary Services	7·3	7·4	7·3	7·7	8·0	7·8	8·2	9·5	9·0
6. Transport, Storage & Communication	429·1	498·4	506·5	525·9	513·6	506·5	539·7	550·6	534·1
7. Wholesale & Retail Trade	604·9	753·7	769·1	752·7	725·4	806·6	744·7	770·9	747·9
8. Banking, Insurance & Real Estate	38·4	42·9	40·7	43·7	47·4	49·6	48·7	48·1	48·3
9. Ownership of Dwellings	154·9	161·9	163·5	169·7	178·3	184·9	186·7	186·6	191·2
10. Public Administration & Defence	157·0	160·5	186·3	213·9	241·6	261·2	273·5	281·0	295·3
11. Services n. i. e.	450·1	474·4	513·3	540·5	575·6	615·1	642·4	674·0	714·0
12. Gross Domestic Product	4,527·3	4,878·7	5,100·1	5,141·3	5,300·7	5,645·0	5,650·6	5,729·0	5,820·0
13. Net Factor Income from abroad	-62·4	-57·0	-40·7	-33·8	-44·9	-61·3	-49·8	-49·7	-41·5
14. Gross National Product	4,464·9	4,821·7	5,059·4	5,107·5	5,255·8	5,583·7	5,600·8	5,679·3	5,778·5

Table 8

Real National Income

	1950	1951	1952	1953	1954	1955	1956	1957	1958
1 Gross National Product at Constant (1959) Factor Cost Prices	4464·9	4821·0	5059·4	5107·5	5255·8	5583·7	5600·8	5679·3	5778·5
2. Terms of Trade effect due to Export of:									
i Tea	41·3	−116·0	−193·8	−173·8	−125·1	254·5	111·2	−36·3	36·4
ii Rubber	72·2	359·4	35·6	− 17·8	− 26·4	30·1	11·6	− 22·1	− 29·7
iii Three Major Coconut Products	61·7	34·6	− 94·5	− 53·7	− 44·0	− 79·4	− 70·7	− 58·2	− 24·2
iv Other Products	2·7	10·4	− 11·0	− 17·8	− 5·7	− 1·7	3·5	4·5	6·9
v All Products	177·9	288·4	−263·6	−263·0	49·0	203·5	55·6	−112·1	− 10·5
3. Gross National Income at Constant (1959) Factor Cost Prices	4642·8	5109·4	4795·8	4844·5	5304·8	5787·2	5656·4	5567·2	5768·0

Table 9
Gross National Product and per Capita Income

(Rs. Million)

	1350	1951	1952	1953	1954	1955	1956	1957	1957
1. Gross National Product at factor cost prices	3999	4546	4385	4685	4974	5245	5242	5421	5662
2. Gross National Product per capita at factor cost prices	521	577	543	565	584	601	587	592	603
3. Gross National Product at constant (1959) prices	4465	4822	5059	5108	5256	5584	5601	5679	5779
4. Gross National Product per capita at constant (1959) prices	582	612	627	616	617	640	627	620	616

Table 10

Production and Prices – Tea, Rubber & Coconut

	1950	1951	1952	1953	1954	1955	1956	1957	1958
Tea (million lbs,) ..	306	326	317	343	367	380	376	398	413
Rubber (million lbs.) ..	254	235	216	221	210	210	214	220	224
Coconut (million nuts) ..	1970	2225	2442	2274	2212	2599	2512	2072	2035
Tea (Average market price per lb.) Rs. ..	1·77	1·90	1·73	1·91	2·56	2·20	2·19	1·86	1·82
Rubber (Average market price per lb.) Rs. ..	1·73	2·18	1·41	1·38	1·14	1·31	1·19	0·96	1·21
Coconut—									
Copra (producer price per candy) Rs. ..	203·85	245·94	156·29	203·09	180·97	146·03	159·32	182·91	208·92
Coconut oil (Colombo market price per ton) Rs. ..	1377·12	1629·72	978·60	1274·39	1119·05	945·11	977·04	1031·61	1225·07
Desiccated Coconnt (Producer price per lb. Rs. ..	0·83	0·61	0·44	0·53	0·45	0·35	0·41	0·44	0·51

Source: Department of Census & Statistics – Statistical Abstracts.

Table 11

Agriculture and Manufacturing at Current Factor Cost Priae

	1950	1951	1952	1953	1954	1955	1956	1957	1958
Agriculture, Forestry, Hunting and Fishing	1613.9	1768.6	1765.9	1884.4	2095.5	2220.7	2127.8	2122.7	2205.5
Tea, Rubber and Coconut	1037.4	1170.7	1048.7	1127.5	1217.9	1198.9	1219.8	1149.3	1194.3
Other agriculture	451.1	473.0	590.4	629.9	742.3	881.5	753.6	814.7	852.6
Forestry, Hunting and Fishing	125.4	124.9	126.8	127.0	135.3	140.3	154.4	158.7	158.6
Manufacturing									
Processing of Tea, Rubber and Coconut	371.5	489.4	178.2	299.9	400.9	355.0	304.1	299.2	301.7
Factory Industry	218.8	218.5	222.1	208.9	205.7	225.2	222.4	242.6	277.1
Cottage Industry	39.8	34.3	37.8	42.8	40.9	41.5	42.3	44.6	45.1

Table 12

Agriculture and Manufacturing at constant (1959) prices

	1950	1951	1952	1953	1954	1955	1956	1957	1958
Agriculture, Foresty, Hunting and Fisning ..	1870.8	1951.3	2047.5	2008.3	2144.5	2288.1	2203.6	2198.1	2269.6
Tea, Rubber and Coconut ..	1109.4	1178.0	1182.6	1194.5	1211.2	1284.8	1242.9	1262.9	1301.3
Other Agriculture ..	614.5	644.8	735.3	685.6	798.8	872.8	812.3	784.1	818.3
Foresty, Hunting and Fishing..	146.9	128.5	129.6	128.2	134.5	130.5	148.4	151.1	150.0
Manufacturing									
Processing of Tea, Rubber and Coconut ..	310.2	318.4	308.2	322.8	331.8	344.9	342.5	351.8	362.2
Factory Industry..	255.0	242.7	244.7	231.1	231.8	251.8	244.2	255.0	288.1
Cottage industry..	64.4	44.7.	48.7	54.6	52.3	52.7	52.9	54.9	53.4

APPENDIX

Estimates of Gross National Product – 1950—1958
Sources and Methods

This series has been estimated, using as far as possible the same sources and methods, as in the Central Bank's series from 1959. Data in respect of some sectors however, were found to be insufficient or unavailable and indirect estimates of value added in these sectors had to be made. These instances are referred to in the description that follows:—

1. Agriculture, Forestry, Hunting and Fishing

Data on production and prices were obtained from the Statistical Abstracts of Ceylon. Estimates of value added in Tea, Rubber, Coconut, Paddy and Livestock were obtained by deducting the cost of materials and services used from producer values. Value added in subsidiary foodcrops was estimated by applying a coefficient to the producer value of subsidiary foodcrops. This coefficient was based on a study made by the Central Bank in the early 1960s and was thought to be appropriate in estimating value added in the 1950s. In the case of a number of other items, producer values were estimated from data on expenditure obtained from the Central Bank's Survey of Consumer Finances 1953. These items include tobacco, betel and arecanuts, herbs and spices and fruits and vegetables. Estimates of value added in forestry were made, partly on the basis of per capita expenditure (firewood and timber used in furniture and matches) and partly from data on production of plywood and timber available in the Statistical Abstracts of Ceylon. Estimates of value added in fish production were also made from data available in the Statistical Abstracts.

2. Mining and Quarrying

Value added in this sector includes the following: Salt, Graphite, Gems, Clay, Limestone, Sand, Bricks and Cabooks.

Value added in salt and graphite was estimated from data on production and prices available in the Statistical Abstracts. Value added in gemming was estimated from data on exports of gems available in the Customs Returns. The producer values

of clay, limestone, sand, bricks and cabooks were estimated from the value of building construction. Value added was estimated by applying a coefficient to producer values.

3. **Manufacturing**

Value added in this sector is made up of (i) value added in Factory Industry, (ii) Value added in the processing of Tea, Rubber and Coconut, and (iii) Value added in Cottage Industry.

In the Ceneral Bank's series, the estimate of value added in Factory Industry, is based on the annual survey of Industries conducted in the first quarter of each year. As it is impracticable to conduct a similar survey in respect of each of the years from 1950 to 1958, it was decided to employ an indirect method in estimating value added in factory industry. In estimating value added in factory industry therefore, the estimate of value added as obtained from the Survey of Industry 1952, conducted by the Department of Census and Statistics was used as a bench-mark. Estimates of industrial production in years other than 1952 were based on the index of industrial production computed by the Department of Census and Statistics and on data on imports of raw-materials.

Estimates of value added in the processing of Tea and Rubber were made from data on production and prices as available in the Statistical Abstracts. Value added in the processing of coconut products (coconut oil, dessicated coconut and copra) was estimated from data on exports of these products obtained from the Customs Returns. Price data relating to coconut products were obtained from the Statistical Abstracts of Ceylon.

Value added in cottage industry was estimated from data on incomes, obtained from the Report of the Census of 1953. These data have been adjusted for changes in population, and wage rates in estimating value added in the years 1950 to 1958.

4. Construction

Value added in this sector is estimated as the sum of (i) value added in building construction, (ii) value added in the installation of heavy machinery and (iii) value added in Government construction activity, i. e. roads, bridges, irrigation works, etc.

Value added in building construction was estimated by using an indirect method. In the Central Bank's series the value added in building construction is estimated by multiplying the value of selected building materials used by 4.47. The building materials used include cement, iron and steel, electrical fittings, brass fittings, paints and distemper. The multiplier of 4.47 is based on data obtained from the Central Bank's Survey of Private Investment 1963. In estimating the value of building construction in the period 1950 to 1958 the same method was used. The value of the multiplier was however scaled down to make allowance for lower costs in the construction sector in the 1950s.

Value added in government building activity was estimated from the Public Accounts.

Value added in the installation of heavy machinery was estimated from the c. i. f. value of imports of heavy machinery as obtained from the Customs Returns.

5. Electricity, Gas, Drainage and Water Supply

Value added in electricity is estimated from the Public Accounts, as equal to total salaries and wages paid for generation, transmission and distribution of electricity.

Value added in drainage and water supply is estimated as a ratio of total emoluments paid in the Department of Water Supply and Drainage and of emoluments paid by local authorities which provide water supply and drainage services.

6. Transport and Communication

Total value added in this sector consists of value added in the following: (a) Railways, (b) Omnibus Services, (c) Post & Telecommunication, (d) Port Commission, (e) Taxis, (f) Lorries and (Road Haulage.)

Value added in Rail transport was estimated from data on passenger mileage and gross receipts of the Ceylon Government Railway.

Value added in tram and trolley bus services was also estimated from data on passenger mileage and gross receipts.

Sufficient data on bus transport service in the period 1950 to 1958 were not available. Value added was therefore estimated by using the 1959 estimate as a benchmark and correcting this estimate for changes in the number of buses as registered with the Commissioner of Motor Traffic.

Value added in Government enterprises – i. e. Post & Telecommunication and Port Commission – was estimated from the Public Accounts.

Value added in taxi services and chauffeur driven cars was obtained as the product of the estimated income per vehicle per year multiplied by the number of registered taxis. An allownace was made for private motor vehicles used for hire. Data on incomes were estimated from the Census of 1953. The number of motor vehicles was estimated from data available in the Statistical Abstracts.

The sources and methods used in estimating value added in road haulage (transport) are described in section 7 below.

7. Wholesale and Retail Trade

Value added in trade and transport is obtained by applying a distribution margin to the c. i. f. value in the case of imports and to producer values in the case of locally produced goods. Where retail and producer prices are available, the distribution margin is estimated as the difference between retail values and producer values. Value added is apportioned 70 per cent to trade and 30 per cent to transport. This ratio is based on the results of a Survey of Distribution conducted by the Department of Census & Statistics in 1951.

Value added in wholesale and retail trade is estimated separately for (a) Local goods (b) Exports (c) Imports.

(a) Value added in wholesale and retail trade of local goods is estimated separately for coconut and coconut oil, other food-crops, tobacco, betel and arecanuts, firewood, livestock, tea, fish and industrial products. The distribution margin is estimated as the difference between the retail value and the producer value. This is allocated 70 per cent to trade and 30 per cent to transport.

(b) Exports

Value added in wholesale and retail trade of exports is estimated separately for tea, rubber, coconut and other exports.

Value added in tea and rubber was estimated as

> Market value of production
> Less Producer value
> Less Export duties
> Less Transport.

Value added in coconut was estimated as the sum of value added in coconut, copra and coconut oil.

Value added was estimated as:

> f. o. b. value of exports
> Less: Market value of exports
> Less: Export duty.

Value added in trade and transport of other exports is estimated by applying a coefficient to the F. O. B. value of exports, less export duties – This is allocated 70 per cent to trade and 30 per eent to transport.

(c) Imports

Value added in imports was estimated separately for imports of personal consumption goods, imports of raw materials (excluding industrial raw materials) and imports of investment goods. The distribution margin was estimated as a percentage of the c.i.f. value of goods coming under each of these categories as follows:

> Imports of personal consumption goods – 40 per cent
> Imports of investment and intermediate goods – 35 per cent

As described earlier the distribution margin is allocated 70 per cent to trade and 30 per cent to transport.

Net value added in Wholesale and Retail Trade by government trading enterprises was also taken into account in making this estimate. In the Central Bank's series value added is estimated from the Public Accounts, as equal to salaries and wages paid under Advance Accounts. As the presentation of Government Accounts before 1958 did not permit an estimate on these lines, value added was estimated by applying a ratio to the value of imports of rice flour and sugar. This ratio was adopted from estimates of value added by government trading enterprises in 1959 and 1960.

8. Banking, Insurance and Real Estate

In the Central Bank's estimates value added in this sector is estimated as equal to the sum of salaries, wages, profits and depreciation of (a) Commercial banks (b) The Central Bank (c) Insurance Companies (d) Government Credit Institutions and Private Credit Institutions, less profits of the Central Bank. It was considered impracticable to obtain data on the lines required above for the period from 1950 to 1958. Value added by this sector for the period from 1950 – 1958 was, therefore, estimated as equal to 0·86 per cent of value added in all other sectors. This percentage is based on the ratio of value added in the Banking sector, to all other sectors, in the years 1959 and 1960.

9. Ownership of Dwellings

In the Central Bank's estimates value added in this sector is estimated as the assessed value of buildings as fixed by local authorities for rating purposes, less the value of rates paid and the estimated cost of repairs. Since actual rents are higher than assessed values an allowance is made for under assessment. The data for the Central Bank's estimates are obtained direct from the respective local authorities. The Central Bank estimates rural rents as equal to one-fifth the value of urban rents, except Colombo. Rents of commercial buildings are deducted to obtain value added in the ownership of dwellings.

In this estimate it was found to be impossible to obtain reliable data on assessed values etc. This estimate was therefore, based on the number of housing units, as obtained from Census of Housing of 1953, adjusted for changes in population. Assessed values and rents and rates paid were estimated pro rata, from the Central Bank's estimates of value added in the ownership of dwellings in 1959.

10. Public Administration and Defence

Value added was estimated as equal to, salaries and wages paid in the Ministries and Government Departments coming under this sector, the salaries and wages of employees in Government commercial activities run an advance accounts and salaries of local Government employees. The imputed value of Government buildings is added to this figure.

The data were obtained from the Public Accounts. Estimates of salaries of Local Government employees and the imputed value of Government buildings were based on data available in respect of the year 1959.

11. Services n. i. e.

Value added in this sector is made up mainly of the following:

(a) Education and Health Services (b) Broadcasting and Meteorology (c) Recreation and Entertainment (d) Domestic and Utility services (e) Hotels and Restaurant Services (f) Personal Services and Professional and Institutional Services.

Value added in Education and Health Services and Broadcasting and Meteorology was estimated from the Public Accounts as equal to salaries and wages paid.

Direct data in respect of the other categories in this sector are not available.

Value added in Recreation and Entertainment Services, Domestic and Utility Services, Hotels and Restaurant Services and Personal Services is estimated from data on incomes of persons in these categories available in the Report of the Census of 1953. Incomes estimated from this source were extrapolated by the increase in population and adjusted for changes in wage rates between 1953 and the year in question. Estimates for 1950, 1951 and 1952 were also based on incomes as reported in the 1953 census. This method assumes an unchanged proportion of persons employed in this sector to total population in 1953.

Value added in Professional and Institutional Services was estimated from data on incomes of persons in these categories, available in the Reports of the Commissioner of Inland Revenue.

12. The sum of value added of items 1 through 11 is equal to Gross Domestic Product.

Net factor income from abroad is added to Gross Domestic Product to obtain Gross National Product.

Net factor income from abroad is the net difference between the inflow and outflow of factor incomes to and from Sri Lanka respectively. This is estimated from the Balance of Payments Record. As the outflow of factor income exceeds the inflow this is shown as a negative quantity.

Gross National Product at Constant (1959) Prices

Changes in Gross National Product from one year to the next, valued at current prices, reflect both price·changes and quantity changes. Estimates of Gross National Product are therefore also made at prices prevailing in a base year. Valuation at a constant base year price eliminates price changes from the base year leaving an estimate of real Gross National Product. The Central Bank's estimates of real Gross National Product are based on the year 1959. In this study too, Gross National Product for the years 1950 to 1958 have been valued at 1959 prices, so as to obtain a series which would be comparable with the Central Bank's series of Gross National Product at constant (1959) prices.

Estimates of Gross National Product at constant (1959) factor cost prices have been obtained by deflating each of the corresponding items in the detailed estimates of Gross National Product at current prices by a price index or by extrapolating value added in 1959 by an output index.

A breakdown of the items in each sector and the indices used are shown in the annexed table.

Estimates of Gross National Product from 1950–1958
Constant (1959) prices

Extrapolators/Deflators
1959=100

1. **Agriculture, Forestry, Hunting and Fishing**

Tea	..	output index
Rubber	..	output index
Coconut	..	output index
Toddy	..	output index
Coconut husks	..	output index
Cadjans	..	output index
Subsidiary Foodcrops	..	Cost of Living index
Fruits and vegetables	..	Cost of Living index
Livestock	..	output index
Tobacco	..	Cost of Living index
Betel and Arecanuts	..	Cost of Living index
Minor export crops	..	Export volume index
Government agricultural services	..	Wage rate index
Fishing	..	output index
Medicinal herbs	..	population index
Spices–local consumption	..	Cost of Living index
Forestry	..	Wage rate index of workers in agriculture

2. **Mining and Quarrying** .. Wage rate index of workers in industry and commerce.

3. **Manufacturing**

   (a) Factory and Cottage Industry .. Cost of Living index–domestic group.

   (b) Processing of tea, rubber and coconut .. output index

4. **Construction** .. Cost of Living index–domestic group.

5. **Electricity, Gas, Water and Sanitary Services**

   .. Wage rate index of
   .. Government Technical
   .. and Clerical Employees.

6. **Transport, Storage and Communication**
    Railway   ..   Wage rate index of all
                                                  Central Government
                                                  Employees.

    Omnibuses   ..   Wage rate index of
                                                  workers in Industry and
                                                  Commerce.

    Posts and Telecommunication   ..   Wage rate index of all
                                                  Central Government
                                                  Employees.

    Port Commission   ..   Wage rate index of
                                                  workers in Industry and
                                                  Commerce

    Motor cars, taxis etc.   ..   – do –
    Road haulage (Lorries)   ..   – do –
7. **Wholesale and Retail Trade**   ..   Cost of Living index
                                                  Domestic Group
8. **Banking Insurance and Real Estate**   Wage rate index of
                                                  workers in Industry and
                                                  Commerce
9. **Ownership of Dwellings**   ..   Cost of Living index
                                                  Domestic Group
10. **Public Administration and Defence**   Wage rate index of all
                                                  Central Government
                                                  Employees
11. **Services**   ..   Cost of Living index
                                                  Domestic Group

Real National Income

Real National Income is derived by adjusting estimates of Gross
National Product at constant (1959) prices for changes in the terms of
trade[1]. The terms of trade effect means the movement of the prices of
Sri Lanka's exports in relation to the movement of the prices of her
imports, measured from a base year. In other words this means the
net loss or gain of income due to the rate at which Sri Lanka's exports
exchange for her imports.

---

1. The terms of trade here refers to the commodity terms of trade as measured
    by Central Bank trade indicies. This is measured by the ratio of the import
    price index in any year to the export price index in that year expressed as a
    percentage thus

    $\dfrac{Px}{Pm}$ x 100 where Px is the export price index and Pm the import price index.

    Therefore, terms of trade as used here refers to the net barter terms of trade.

The terms of trade effect on Sri Lanka's real product is measured as follows:—

$$V \left(\frac{1}{Pm} - \frac{1}{Px} \right)$$

where

V   is the f.o.b. value of exports in a given year at current prices.
Px   the export price index for that year.
Pm   the import price index for that year.

The net gain or less due to movements in the terms of trade is obtained by –

1.   Deflating the f.o.b. value of exports in any year by the import price index in that year;

2.   Deflating the f.o.b. value of exports by the export price index in that year.

If the difference between these two amounts is negative, it indicates that the movement of the terms of trade has diminished Sri Lanka's real National Income by the amount of the difference. Similarly, if the difference is positive, it indicates that Sri Lanka's real National Income has increased by the amount of the difference. That is, the movement of the terms of trade have been unfavourable and favourable respectively.

In estimating real national income, exports are divided into four components –

1.   Tea.
2.   Rubber.
3.   The three major cocount products.
4.   Other export products.

The f.o.b. values of tea, rubber and coconut products are deflated first by the all imports price index and then by the respective export price indices for tea, rubber and coconut products. The value of other export products is deflated by the export price index and the import price index respectively. The amount of the difference under each category will show the loss gain in income due to movements in the terms of trade in respect of tea, rubber, coconut products and all other exports. The total loss/gain in income due to movements in the terms of trade is the algebraic sum of the four sub-totals.

ECONOMIC ASPECTS OF BRAIN DRAIN*

P. A. S. DAHANAYAKE

Introduction

In recent years there has been a growing concern over the flow of human capital from the developing to the developed countries, which is often referred to as 'brain drain'. A recent study by a regional body adopts as a working definition that brain drain involves "the external migration of personnel at the skilled, technical and professional levels for employment abroad, under circumstances in which they could otherwise have been employed at once, or in the near future, productively at their proper, attained level of professional skill, in their own countries".[1] This definition, however, includes even those personnel who leave their home country for temporary or short-term employment abroad – an element that some others prefer to exclude from the definition of brain drain.[2]

There had been a considerable interest shown recently in the problem of brain drain by economists, by governments and also by international organisations. Most of the studies on the problem seem to assume that the flow of human capital out of the developing countries adversely affect development efforts of these countries. Some studies concentrate more on the factors that cause brain drain than on overall assessment of economic welfare of all parties involved in the problem. The present paper attempts to bring out some economic and welfare[3] implications of brain drain with special reference to Sri Lanka

---

1. Colombo Plan Bureau, **Special Topic: Brain Drain**, New Delhi, October – November, 1972, p.1

2. J. R. Cortes, "Brain Drain and Counter Brain Drain in the Philippines" **Philippines Economic Review**, Vol. XII, 1973, p.627.

3. In this paper welfare is viewed, in terms of welfare economics, as the well – being or happiness of individuals in a society (rather than the well-being of the state whose objective may be to maximise its military and economic power) as affected by economic causes.

I

Causes of Brain Drain

The common reasons for brain drain have been outlined in a recent Colombo Plan study[1]. These could be summarised as follows :

Push Factors

The factors that drive people from their mother country, in general are :

    (i) High rate of unemployment and under-employment among skilled personnel ;

    (ii) Slow rate of economic growth and lack of opportunities ;

    (iii) Low salary and wage scales ;

    (iv) Lack of incentives for professional advancement ;

    (v) Lack of professional and technical equipment ;

    (vi) Relatively low status or the professional and skilled personnel in the total administrative system ; and

    (vii) Limited participation or non-participation of professionals and skilled persons in the decision making process.

Pull Factors

Factors that attract skilled personnel to the more developed countries are :

    (i) Better opportunities to come into contact with intellectual comperes and the stimulation and appreciation that result therefrom ;

    (ii) Shortages of manpower in the fields in receiving countries which provide employment opportunities for migrants ;

    (iii) Higher salaries and standard of living ; and

    (iv) Better educational facilities for migrants' children.

It may appear that most of these push and pull factors are economic and only a few are non-economic factors. In addition to the above mentioned factors which are more of a general nature, there could also be factors which may be specific to different countries and also to different individuals. For instance, political, cultural, religious and such other factors may also prompt skilled persons belonging to certain minority groups to emigrate.

---

1. Colombo Plan Bureau, op. cit., pp. 1—3

There could also be certain non-economic factors affecting the welfare of immigrants in their new situations; and some of these factors may have adverse effects on their welfare. For instance, the lack of social and cultural affinities that an immigrant has been used to in his own country may make him less happy; and sometimes those may even act as 'pull-back' factors. However, since there is no apparent general tendency for immigrants to return to their home countries, economic factors that attract immigrants appear to be stronger than those pull-back factors.

II

An overall assessment of welfare involved in the flow of human capital would require an examination of the implications of the movement for the person migrating, for others both in the country left and the country entered, and for the rest of the world. In a Paretian sense[1], two conditions must be met for an improvement of welfare: (1) that the emigrant improves his own welfare, and (2) that nobody else in either the country left or the country entered, or in the rest of the world is made worse off.

1. Assuming that the individual is the best judge of his own welfare and that the potential migrant is motivated solely by economic reasons and also, given perfect mobility and perfect knowledge, emigration could be viewed as a movement towards the optimum.

Economic reasons for emigration could arise due to a divergence between private and social values. Some countries, especially the developing ones, may not pay their potential emigrants the value of their marginal product. This may be due to such factors as the wage policy of the government, over-supply of human resources etc. Whatever the reasons, under-payment of wages would reflect a misallocation of world human resources, and the result would be a tendency for human capital to migrate from under-paid locations to places where wages are higher, provided there are no barriers for the

---

1. The conditions for a situation of optimum welfare, as enunciated by V. Pareto is defined as "a position from which it is not possible, by any reallocation of factors, to make anyone better off without making at least one person worse-off" (E. J. Mishan, **Welfare Economics: Ten Introductory Essays**, 2nd Ed., New York, 1969, p.22.). The conditions for an improvement in welfare toward this optimality are met "if at least one person is better-off and no one being worse-off", because then "the whole community is better off" (**Ibid**, p.12).

free movement. Such a movement, generally, is a movement towards the optimisation of the migrant's own welfare as well as towards an optimum allocation of world resources, assuming that no imperfections exist.

Brain drain, however, could take place for non-economic reasons as well. Among these, climatic conditions, political factors, educational facilities, language etc. are some of the influential ones. From the migrants point of view these factors may well improve his welfare in the new situation; however these present a problem in quantiative analysis.

Lack of perfect knowledge may cause the potential emigrant to misjudge about his welfare in the new country. Similarly, any restrictions on his freedom to emigrate could be an impediment for a movement towards the optimum.

2. The second condition for a Paretian optimum is hard to satisfy; and it is in this respect that brain drain has attracted most attention. If there are no market imperfections, if the persons are paid the value of their marginal product in the free market and if there are no externalities and distributional effects resulting from brain drain, then the condition that no one else would be made worse-off would be satisfied, and there wouldn't have been any problem. In reality, however, it is claimed that several market imperfections come into play which make brain drain a problem especially to the developing world :

(a) There could be welfare losses to those remaining in the country due to the following :

(i) If the wage paid to a prospective emigrant is less than the value of his marginal product, then his leaving the country could result in a loss to that country by an amount equal to the excess of his contribution over and abvoe his wage. For instance in the diagram below the marginal value product of four skilled workers in a perfectly competitive economy is given by the rectangles A, B. C. & D. However, the wage paid to all the four workers is determined by what the marginal worker, i.e. the 4th, is worth. Thus their wage is W. Suppose the

highly skilled worker 1 whose marginal product is relatively higher than that of the others emigrates; then, those remaining behind will lose the excess of his contribution to the country which is the shaded area[1].

Marginal Value Product

W

A
B
C
D

1   2   3   4

No. of Workers
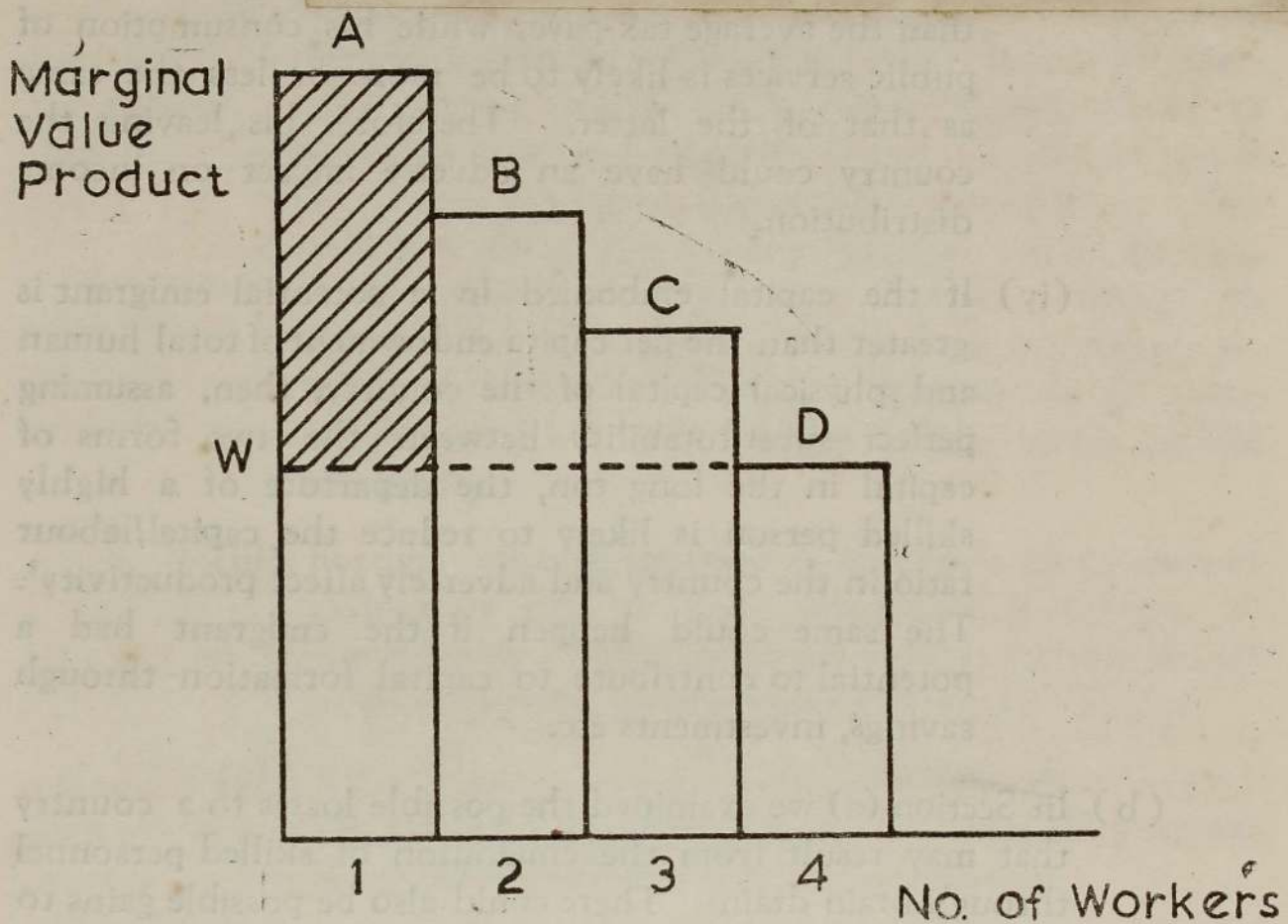
(ii) If skilled persons contribute external economies for which no payment is received by them, then the country is likely to suffer a loss from their emigrating. For instance a highly skilled person's work could be complementary to both the skilled as well as unskilled workers. The knowledge and experience of a highly qualified engineer or a surgeon may enhance the knowledge and skill of other fellow workers. The reduction in the supply of such highly skilled persons could, therefore, adversely affect the productivity of their fellow workers.

1. N. D. Aitken, "The International Flow of Human Capital: Comment", American Economic Review, Vol. 58, June, 1968, pp.540-41.

(iii) The potential emigrant might contribute more in the form of taxes to the provision of public services than what he receives from such services. The highly qualified person is likely to be in a relatively higher income level and therefore would pay more taxes than the average tax payer while his consumption of public services is likely to be more or less the same as that of the latter. Therefore, his leaving the country could have an adverse impact on income distribution.

(iv) If the capital embodied in a potential emigrant is greater than the per capita endowment of total human and physical capital of the country, then, assuming perfect substitutability between the two forms of capital in the long run, the departure of a highly skilled person is likely to reduce the capital/labour ratio in the country and adversely affect productivity[1]. The same could happen if the emigrant had a potential to contribute to capital formation through savings, investments etc.

(b) In Section (a) we examined the possible losses to a country that may result from the emigration of skilled personnel through brain drain. There could also be possible gains to the same country from brain drain :

(i) It is not often uncommon that in certain developing countries some highly educated persons are under-employed. For instance, in India and Sri Lanka there could be instances where even science graduates are employed as clerks. These countries have fairly high rates of unemployment especially among the educated. In such circumstances, emigration of the educated would relieve the employment pressure among the educated at home. Even if a highly qualified person who is 'fully' employed emigrates his place could be taken by an equally qualified person who is under-employed, and the employment pressure is likely to

---

1. H. B. Grubel and A. D. Scott, "International Flow of Human Capital", *American Economic Review*, Vol. 56, May 1966, p. 270.

be thereby relieved right down the line[1]. Emigration under such circumstances, therefore, is likely to improve the welfare of all parties concerned.

(ii) Very often in countries, such as Sri Lanka, that face balance of payments difficulties, there are restrictions on the assets that an emigrant could take with him. Most potential emigrants, by the time they decide to leave, would have acquired a fair amount of assets which they are compelled to leave behind. The married emigrants often leave with their families. As a result, the capital/labour ratio is bound to increase due to emigration under such circumstances, which according to traditional analysis, would raise, in the long run, the average income of the people remaining.

(iii) Foreign exchange transfers by emigrants on account of savings or gifts to their relatives and friends, or expenditure on holidaying at home, could be a source of foreign exchange earnings to the home country.

(iv) Reduction in the supply of skilled personnel through brain drain is likely to improve the bargaining power of the remaining and thereby their income.

(c) From the point of view of the country that attracts skilled personnel on account of brain drain, economic effects thereof are likely to be advantageous. So long as the emigrant improves his welfare and the welfare of nobody else in the new country is adversely affected thereby, emigrant's entry to that country is a movement towards the optimum. It is even possible that the entry of a skilled person may improve not only his welfare but also the welfare of others as well.

If the country of entry is short of skilled labour and, other things being equal, if the marginal productivity of skilled labour in the country as a whole is in the increasing

---

1. Harry G. Johnson says that emigration under conditions of over-supply provides a natural safety valve and therefore may not be considered a "brain drain" (see his article "Some Economic Aspects of Brain Drain", *Pakistan Development Review*, Vol. VII, No. 3, Autumn 1967, p. 382.

range, entry of a skilled person into that country is likely to result in the marginal product of that person being greater than his marginal cost, which will be beneficial to the economy and therefore to the total welfare.

The welfare of a citizen of the country of entry could, however, be adversely affected, if emigration of skilled persons result in a reduction in the marginal productivity of labour and thereby the real wages. The emigrants themselves may be better-off if their incomes are higher than what they earn in their home countries, but they have made the residents in the country of entry worse-off.

(d) The effects of brain drain on the rest of the world (that is those other than in the country left, in the country of entry and the migrants), are often ignored, but not less important. The potentially largest international benefit may accrue through research and experiments that the highly skilled migrants may be able to undertake in the developed countries where facilities are more readily available. Furthermore, with greater availability of better facilities, technology etc. emigration is likely to increase productivity which may indirectly benefit the developing world through international economic aid etc.

III

Brain Drain in Sri Lanka

Emigration of skilled personnel from Sri Lanka attracted public concern only recently when it began to accelerate rapidly. Prior to that although a few highly skilled persons left each year it was not considered a problem as such probably because the numbers involved were negligible. But in recent years the numbers of such persons leaving the country reached considerably high levels as could be seen from Table 1.[1]

---

1. It might be noted that the data available on brain drain in Sri Lanka are inadequate, the reason being that the particulars of persons leaving the country are not systematically collected and maintained by authorities concerned (see Note to Table 1) The lack of accurate data on brain drain can be a serious handicap for future assessment of the problem.

Table 1

Trained Personnel who left for Employment Abroad

Category	May 1971 to April 1972	May 1972 to April 1973	May 1973 to April 1974	May & June 1974
Doctors	108	171	238	41
Engineers	54	113	94	14
Accountants	23	41	88	11
University Teachers	—	15	24	2
Other Teachers	82	55	52	4
Lawyers	8	35	13	2
Technicians	—	20	27	15
Nurses	14	11	2	1
Others*	90	142	83	12
Total	379	603	621	102

* Others include dentists, economists, and other skilled personnel.

Note: These data relate only to those persons who entered into agreements with the government to remit fixed proporations of their earnings abroad to Sri Lanka – a requirement that existed between 1971 and 1974. Apart from these which the Department of Immigration and Emigration was required to maintain for follow-up purposes, no other data on emigration of skilled personnel seem to have been systematically maintained. For this reason, data prior to 1971 and after 1974 could not be obtained.

Source: Government of Sri Lanka, Sessional Paper No. X of 1974– Report of the Cabinet Committee Inquiring into the Problem of Technologically, Professionally and Academically Qualified Personnel leaving Sri Lanka. November, 1974.

The developed countries seem to attract the majority of Sri Lanka's skilled emigrants. For instance in 1972 about two-thirds of the emigrants went to developed countries while the developing countries have attracted the rest. A few highly qualified persons have also joined international organizations.

The Cabinet Committee that was appointed recently to study and report on the problem of brain drain in Sri Lanka mentions in their report[1] the following as the major reasons for emigration of skilled persons from Sri Lanka:

---

1. Government of Sri Lanka: op. cit.

(i) inadequate income;

(ii) lack of opportunities for development of professional com-
petence and advancement;

(iii) dissatisaction with working conditions;

(iv) absence of adequate promotional prospects;

(v) inadequacies in education of children.[1]

All these above could be considered as 'push' factors, while 'pull'
factors could evidently be (a) higher income, (b) better opportunities
for professional competence, (c) better working conditions, (d) better
standard of living, and (e) better educational facilities and oppor-
tunities for children. The cabinet committee findings reveal that
higher income abroad is the greatest attraction for almost all profes-
sional groups. Hence, it could safely be assumed that the highly skilled
persons who leave Sri Lanka, are in general, economically better off in
their new situations.

What could be the impact of their leaving on those left behind?
It is common knowledge that Sri Lanka is faced with many problems
connected with over–population. Her per capita income, being still
below U. S. $ 200 per year, is very low; her rate of unemployment is
very high and she has to bear a heavy welfare services bill every year
which takes a considerable slice of the budgetary expenditure. The
more important phenomenon and the one that is more relevant to the
problem of brain drain, is the very high rate of unemployment among
the educated. According to the Consumer Finance Survey of 1973[2],
about 45.9 per cent of those who have passed the G.C.E. (Ordinary
Level) or above, and 16.2 per cent of the University Graduates were
unemployed at that time.

In the face of this alarmingly high rate of unemployment among
the educated, should brain drain be considered a serious problem?
Brain drain may be a problem for concern if those who leave cannot
be replaced from among those who remain, without adversely affecting
the welfare of those who remain and / or the productivity of the
economy.

---

1. Though education facilities are available, this may be interpreted as the
   dissatisfaction with the abolition of English medium in education which
   they probably view as affecting the quality and standard of education.

2. Central Bank of Ceylon, **Survey of Sri Lanka's Consumer Finances**, 1973,
   Colombo, 1974.

Doctors and engineers constitute the largest professional groups that tend to emigrate from Sri Lanka. These two groups together account for about 49 per cent of the highly skilled personnel emigrated in the past. According to the findings of the Cabinet Committee (referred to earlier) most of the emigrants of these groups were relatively young who could easily be replaced by the current levels of output of the University of Sri Lanka. For instance, the current level of output of doctors by the University is about 240 per year and the estimated annual fresh intake of doctors required for the Health Department is about 120 per year in which case the Cabinet Committee conludes that there could be a surplus in the supply of medical graduates[1]. In the case of engineering graduates too there seems to be a similar surplus when the cadre for engineers in the public sector is compared with the numbers passing out presently from the University.

It must be pointed out, however, that the Cabinet Committee does not seem to have examined the requirements of medical doctors on the basis of a population/doctor ratio, which no doubt would have been more appropriate. Sri Lanka ranks fairly high among her developing neighbours when this ratio is taken into account. For instance, according to **The Economic Times – India and Asia Annual,** 1973, Sri Lanka's population per doctor is about 37,000 whereas in the economically better-off developing countries such as the Philippines, Thailand and Malaysia, the same is 98,000, 85,000 and 42,000 respectively. But compared with a developed country such as Japan whose population per doctor is 9,000, Sri Lanka's population / doctor ratio is not all that satifactory. Thus if an appropriate population/doctor ratio is taken as a norm, Sri Lanka may not have a surplus of doctors.

The problem may be similar in the case of engineers too. The cadre in the puplic service and the puplic corporations, which the Cabinet Committee Report seems to have relied more on, is hardly an adequate measure of demand. With greater emphasis on economic development, engineers' services could increasingly be required in the private sector as well. Hence a surplus in these two categories-doctors and engineers-who tend to emigrate in greater numbers is less likely to exist. In these two categories replacement too is likely to be more difficult than in the case of categories like economists, accountants, etc., in view of the specialized nature of training required in the case of the

---

1. Government of Sri Lanka, **Ibid,** p. 14.

former. Furthermore, where there is no surplus in a particular category of skill replacement involves a real resource cost to the government, whereas no such cost would be involved when there is a surplus.

Therefore, with regard to the groups such as economists, accountants, university teachers, administraters, etc., the problem seems to be less serious. Fore one thing the number of young graduates passing out of the University every year and who could be absorbed into these groups appears to be much higher than the numbers leaving the country; and for another not all those who pass out annually are fully employed.

In these circumstances, the outflow of trained personnel could be viewed as a problem in Sri Lanka only in the case of those categories of skilles which cannot easily be replaced without adversely affecting the welfare of the community. As for other categories where replacement is no problem, emigration could really be a blessing in disguise.

Another important aspect of Sri Lanka's emigration is her foreign exchange policy concerning the emigrants' transfer of assets. Since the early sixties it had been Sri Lanka's policy to limit, for balance of payments reasons, the amount of assets that an emigrant could take away to a very small amount, This in effect compels the emigrants to leave behind almost all of their assets which will no doubt raise the capital/labour ratio within the domestic economy. Other things being equal, an improvement in the capital/labour ratio is likely to raise productivity and per capita income.

The more important aspect of this problem is apparently the lack of proper coordination between the supply of and the demand for trained personnel, or in other words, between the man-power training and the proper assesment of the country's requirements. The very high rate of unemployment among the educated is either because there has been an over-investment in man-power training or because of under-utilisation of trained man-power due to certain constraints on economic growth. It is important, therefore, that any constraints on growth are overcome so that faster economic growth could absorb the abundant skilled labour.

In Sri Lanka, education has been free and the expenditure that the government would have incurred on education and training of a highly skilled person could be considerable. Then, from the point of view of the state, emigration of such a person could be a loss to the government. But on the other hand if that person is unemployed or someone else who is equally qualified, who can take his place, is unemployed, then one could argue that emigration of that person will not only improve his own welfare but also improve the welfare of another at home who will take his place. Loss to the government in such cases, on account of the migrant's education, therefore, could be viewed as only a potential loss and not an actual loss.

The loss to the government is potential in the sense that when there is unemployment among the skilled personnel, outflow of some of them without causing a shortage in the supply may not cause an actual loss; because as the numbers leaving are unemployed, it is immaterial to the government, as far as education cost is concened, whether they remain or emigrate. But it could be a potential loss, in that if some day the economy were to expand and be able to absorb oll of them, their non-availability by then would amount to a loss. However, for a slow growing economy where new additions to the unemployed take place steadily, that would be an extreme possibility, Outflow of skilled personal (except those who are hard to replace). therefore, from a country where unemployment among the educated is high could be some sort of a safety valve that reduces unemployment pressure. However, the gain to the country that attracts such educated personnel is an actual gain which would amount to a tranfer of real resources (in the form of human capital), in most cases, to developed countries, but for which no compensation is received.

IV

Some Policy Implications

It is, generally, accepted that on account of brain drain both the emigrants and the developed countries to which they emigrate are the gainers while the developing countries from which emigration takes place are the losers. If that is the case, one is justified in suggesting that the gainers should be asked to compensate the losers.

To effect a payment of compensation by the developed countries, an international agency such as the IBRD could initiate a special fund to which the developed countries could be asked to contribute a reasonable sum periodically. Outright grants from this fund could be made to developing countris, based on a suitable formula (such as the ratio of skilled personnel left to total working population) that would reflect the magnitude of the loss to each country on account of brain drain.

As for the emigrants themselves, they could be required to pay a special tax at the time of departure from their home country[1]. However, such a tax could hardly be justified in a country such as Sri Lanka where the impact of emigration on the economy is minimal by reason of high unemployment among the educated. In such a situation theemigration tax could, however, be selective in that certain categories of skills which are hard to replace be taxed more than or to the exclusionof others. In fact those categories where unemployment rates are high may even be encourage to emigrate[2].

The basic couse of brain drain being economic unde-development, a more general policy would call for an integrated approach with measures for faster economic growth and more attractive remuneration and service conditions for highly skilled personnel as its main elements. The specific nature of the problem and therefore the specific policies required may, however, differ from country to country. For instance, in countries where a scarcity of trained man-power exists-as is the case in most developing countries in Africa-the problem may call for more restrictive policies of counter brain drain. In countries, such as Sri Lanka, where rates of unemployment among the educated are very high and for that reason man-power shortage is not a serious prablem, restrictive approach to brain drain may not be advisible. In such situations, what is urgently required would be a more dynamic approach to economic growth to ensure faster growth that could absorb the excess man-power.

---

1. West argues in favour of an 'emigration tax' more as a fulfilment of inter-generation obligation to other individuals in the home country than as a compensation payable by gainers to losers (E G. West. "Welfare Economics and Emigration Taxes", Southern Economic Journal, July, 1969, pp.52-9).

2. With greater emphasis on higher education being conducted in the official language, the consequent decline in the proficiency in English may have been in recent years, a serious handicap to many young graduates to find jobs abroad, which probably made the problem of unemployment among the educated more serious.

REFERENCES

1. Aitken, N. D., "The International Flow of Human Capital: Comment", American Economic Review, Vol. 58, June, 1968 pp. 539-45.

2. Bhagwati, Jagdish. et.al., "The Brain Drain Symposium", Journal of Development Economics, Vol. 2, No. 3, September, 1975.

3. Colombo Plan Bureau, Special Topic: Brain Drain – Country Papers, the Working Paper, and the Report of the Social Topic Committee Prepared for the Meeting of the 22nd Consultations Committee 1972, New Delhi, October–November, 1972.

4. Cortes, Josefina. R., "Brain Drain and Counter Brain Drain in the Philippines", The Philippine Economic Review, Vol. XII, Nos. 1 & 2, 1973, pp. 627-49.

5. Grubel, H. B. and Scott, A. D., "The International Flow of HumanCapital", American Economic Review, Vol. 56, No. 2, May 1966, pp. 268-74.

6. ...., "The International Flow of Human Capital: Reply", American Economic Review, Vol 58, June, 1968, No. 3, Part I, pp. 545-58.

7. Government of Sri Lanka, Sessional Paper No. X. 1974: Report of the Committee Inquiring into the Problem of Technologically, Professionally and Academically Qualified Personnel leaving Sri Lanka, Colombo, November, 1974.

8. Johnson, H. G., "Some Economic Aspects of Brain Drain", Pakistan Development Review, Autumn, 1967. pp. 379-406.

9. Mc Kay, Lloyd, "The Brain Drain", a Paper submitted at a seminar, at the University of New England in 1971 (mimeo).

10. Mishan, E. J., Welfare Economics: Ten Introductory Essays, 2nd Ed. New York, 1969.

11. Nagarajah, K. V., "Brain Drain: A Preliminary Survey", Indian Economic Journal, January/March, 1970, pp. 324-42.

12. West, E. G., "Welfare Economics and Emigration Taxes", Southern Economic Journal, Vol. XXXVI, July 1969, pp. 52-9

THE PERFORMANCE OF
THE CONVERTIBLE RUPEE ACCOUNTS
SCHEME 1972-75

M. R. FERNANDO AND SIRIMEVAN COLOMBAGE

In July 1972, the Government introduced the Convertible Rupee Accounts Scheme (CRA) as an incentive to step up exports of a non-traditional nature, particularly of gems. This was in addition to the other exchange and fiscal incentives that were in force. Exporters in the non-traditional sector had already been given the facility of FEECS, tax holidays, import duty rebates etc. Under the Convertible Rupee Accounts Scheme, a percentage of foreign exchange earnings (f.o.b. value) of exports of non-traditional or minor export products and some services are permitted to be credited to a convertible rupee account. Exporters of these items can utilize CRA funds for the payment of imports, travel abroad and other payments which are not of a capital nature.

The improvement of the non-traditional export sector is vital to an economy like ours, since the overall performance of the main plantation industries, the traditional sector of the economy, has continuously been dissappointing over the last fifteen years. The general indications are that the performance of that sector will continue to decline further. The table below gives Sri Lanka's trade balance during the last ten years.

As shown in Table 1, the trade deficit which amounted to Rs. 13 million in 1965 rose tremendously to the unprecedented magnitude of Rs. 1,421 million in 1975. The deficits in the balance of payments have occured since 1958 on a continuing basis except in 1965 when the deficit was marginal. This was primarily due to the fact that import payments of the country rose faster than export earnings. As import prices have risen faster than export prices, import capacity has virtually stagnated. While the import bill has continued to rise

Table 1

Trade Balance   (1965 to 1975)

(Rs. Million)

Year	(1) Exports	(2) Imports	(3) Trade Balance =((1) − (2))
1965	1909	1922	− 13
1966	1674	2018	− 344
1967	1650	1985	− 335
1968	1976	2356	− 380
1969	1909	2655	− 746
1970	2016	2332	− 316
1971	1931	2218	− 287
1972	1898	2153	− 255
1973	2346	2644	− 298
1974	3400	4663	− 1263
1975	3913	5334	− 1421

Source: Central Bank of Ceylon

rapidly there has been a downward movement in export earnings, particularly earnings from traditional exports. For decades, Sri Lanka's export trade had been dominated by the three primary commodities tea, rubber and coconut, which together accounted for more than 90 per cent of foreign exchange earnings. This heavy commodity concentration of exports made export earnings vulnerable to adverse price and demand trends in international markets. Realizing the fact that continued dependence on these three commodities is fraught with danger, certain remedial measures were adopted to induce export earnings so as to meet larger import requirements. One of the remedial measures lies in the effort to diversify the export sector of the economy. A serious effort has to be made to increase our export income by widening the area of non-traditional exports. The convertible rupee accounts scheme was introduced with the object of rapidly promoting the growth of non-traditional exports thus diversifying Sri Lanka's export structure and thereby easing the pressure on the balance of payments. Thus by introducing such an incentive, it was expected that with all these supplementary financial incentives, exporters would maximize their foreign exchange earnings and provide the necessary base for sound and sustained growth.

Another objective of the scheme was to provide an incentive to route export earnings through official channels and thereby reduce illicit trade and smuggling with consequent loss of foreign exchange to the country. It was estimated that during the period 1969-1974, at a minimum, the foreign exchange loss to the country as a result of smuggling activities was in the region of Rs. 1,000 million. The leakage of foreign exchange in the earlier years, was to some extent, due to the inability of exporters, businessmen and others to purchase certain imported goods and to have access to foreign exchange legally for travel and other expenditure. The Government has introduced the convertible rupee accounts scheme in order to prevent the illegal appropriations of our national wealth in the form of foreign exchange by allowing exporters and businessmen to credit a certain percentage of their foreign exchange earnings (f.o.b. value) of exports to convertible rupee accounts which they can utilize for the payment for imports, the attractiveness of the unofficial market is reduced.

Scope of the Study

In this paper we discuss the extent to which the CRA scheme has been successful in achieving its two basic objectives of promoting non-traditional exports, and restraining black market operations in foreign exchange. We also examine the purposes for which the CRA funds have been utilised.

Operational aspects of the scheme are summarized in the first part of the paper. The second part explains the sources of CRA funds. This is followed by a third part which reviews the uses of CRA funds. Achievements and shortcomings of the scheme are discussed in the last two sections of the paper.

The analysis in this paper is restricted in several respects. We have not attempted to analyse whether this scheme had any effect on under-invoicing or over-invoicing practices in external trade. The net gain in foreign exchange for comparative investments of domestic resources in all sectors of the economy are not analysed here. We do not examine the overall implications of the CRA scheme on resource allocation of the economy and the long term impact of such reallocations on economic growth and development. Further analysis on these lines will be useful for a comprehensive study of the scheme and an assessment of this type of discriminatory foreign exchange incentives as a tool of economic planning and resource allocation.

Outline of the Scheme

Initially, the Convertible Rupee Account scheme was introduced as an incentive for the export of gems. From July 11, 1972, 25 per cent of foreign exchange earnings from gem exports was allowed to be credited to such accounts. With effect from 1st January 1973 this scheme was extended to cover all earnings from general non-traditional exports with a rate of 2 per cent. The items that came under the scheme were:–

(a) Merchandise exports, excluding black tea in bulk, crepe sheet and scrap rubber, coconut oil, desiccated coconut, copra, fresh nuts and coconut fibre;

(b) Earnings from tourism.

Foreign exchange earned by individuals from the export of paintings, sculpture and other individual and original works of art, writings, literary and scientific and other material for publication and from the professional and consultancy services were also entitled to CRA facilities from 1st January, 1973, at the rate of 25 per cent. Later on, the scheme was extended to cover such earnings of institutions, companies and other pluralistic associations as well.

With a view to providing further inducement to exporters of non-traditional commodities, the Government raised the rate applicable to these products from 2 per cent to 3 per cent, effective from 2nd November 1973. Although coconut fibre was originally excluded from the Convertible Rupee Account scheme, Government decided in January 1974 that processed coconut fibre, coir yarn, coir twine and coir rope should be brought within the scheme. Credits at 3 per cent of the f.o.b. value were thus allowed with effect from 14th November 1974. With effect from November 1974, the rates with which credits are made to CRAs were revised as follows:–

(a) Earnings from export of gems – 20 per cent.

(b) Merchandise exports, excluding black tea, crepe, sheet, and scrap rubber, coconut oil, desiccated coconut, copra, fresh coconut and fibre – 5 per cent.

(c) Tourism – 5 per cent.

(d) Exports and sales to tourists by individuals of original paintings, sculpture and other works of art of an original and independent nature – 20 per cent.

(e) Professional and consultancy services, rendered by individuals, firms, institutions, companies or other pluralistic associations – 20 per cent.

With effect from 25th November 1974, 20 per cent of the f. o. b. value of gem studded jewellary and 20 per cent of the value of the craftsmanship of the jewellary were also included in this category. In the Budget Speech for 1976, it was proposed to change the 5 per cent rate to a variable scale, depending upon the product and its net foreign exchange earnings up to a maximum of 15 per cent.

Convertible rupee accounts may be held in current, savings and deposit accounts at the option of the account holder. Under this scheme, it is permitted to transfer from a current account to a savings account or deposit account or vice versa. However, interest payments are not allowed for these accounts. The account may be drawn on for local disbursements freely, if desired. The drawings from these accounts cannot be re-credited. Re-credits are allowed only where drawings have been authorised for an approved purpose and has not been utilized or been under utilized for such purpose for a valid reason. Where large sums are held in convertible rupee accounts and the account holder desires to have liquid funds for business operations, the balances held in convertible rupee accounts are permitted to be pledged as security against loans and overdrafts. No overdrafts are permitted on the Convertible Rupee Accounts themselves.

The CRA scheme is a strictly non-transferable scheme and there is no provision for the transfer or sale of any foreign exchange by the holder of a CRA to any other person. The following table gives the present rates applicable to earnings from various goods and services exported with effective dates.

Table 2

Rates applicable to export proceeds to be credited to CRAs with effective dates

Date with effect from which credit may be made	Gems	Craftsmanship of gem studded jewellery	Black tea exported as tea in packets or tea in bags	Merchandize exports (excluding black tea in bulk, crepe, sheet & scrap rubber, coc. oil, desiccated coconut, copra, fresh coconuts & coconut fibre)	Processed coc: fibre, coir yarn, coir twine & rope	Tourism	Exports of individuals of their paintings, sculptures and other original & individual works of art.	Exports by individuals of their writings, literary, scientific & other material for publication	Professional & consultancy services rendered by individuals	Professional & consultancy services rendered by institutions, firms, companies and other pluralistic associations
11th July 1972 ..	25									
1st January 1973 ..	25		2	2		2	25	25	25	
23rd August 1973 ..	25		2	2		2	25	25	25	2
2nd November 1973 ..	25		3	3		3	25	25	25	3
14th November 1973 ..	25		3	3	3	3	25	25	25	3
7th November 1974 ..	20		5	5	5	5	20	20	20	5
25th November 1974 ..	20	20	5	5	5	5	20	20	20	5

Source: Central Bank of Ceylon.

Funds which are credited to convertible rupee accounts can be used for financing imports, travel abroad and to make other payments which are not of a capital nature. The items that were allowed to be imported are :-

(i) Imports

(a) passenger vehicles subject to the ceiling value presently approved ;

(b) capital goods subject to the prior approval of the Minis-try of Industries and Scientific Affairs ;

(c) all imports now allowed under trade quotas, actual user items and industrial raw materials ; and

(d) any other imports at the discretion of the Controller of Imports and Exports.

(ii) Travel – limited facilities for business, holiday travel or medical treatment.

(iii) Education – limited facilities for travel for education only.

(iv) Training – training required for the industry earning the convertible rupees.

(v) Purchase of goods from the tourist shops of Ceylon Hotels Corporation.

Export Performance

Table 3 provides data on sources of convertible rupee funds for the period 1973 – 75.

During the past 3 years, the total foreign exchange earned by CRA holders from all sources was Rs. 259,960,000. These earnings have increased consistantly since the begining of the scheme. The total sum credited to Convertible Rupee Accounts in June 1973 (first month that the data are available) was Rs. 17·9 million. It had increased by 201 per cent to Rs. 54·2 million in December 1973. Earnings from all items and other transactions in 1974 have increased to Rs. 143·3 million or by 164 per cent. At the end of 1975, this figure stood at Rs. 259·9 million and recorded an increase of 81 per cent over the last year. This shows that the CRA earnings from all non-traditional exports have increased during 1973-75 by 380 per cent or by about 4 times.

Table 3

Sources of Convertible Rupee Funds
(1973-75)

(In thousand rupees)

	June 1973	December 1973	December 1974	December 1975	Percentage increase in 1974 over 1973	Percentage increase in 1975 over 1974
1. Gem Exports	16,319	45,490	109,305	165,001	135	51
2. Exports of Industrial Products	⎱ 1,342	⎱ 6,786	20,703	62,876	⎱ 341	204
3. Exports of Agricultural Products			8,027	18,470		130
4. Exports of Fish Products			1,225	2,697		120
5. Earnings from cultural activities and services	⎱ 4	⎱ 51	8	23	⎱ 137	188
6. Earnings from professional & consultancy services			113	226		100
7. Earnings from tourism	286	874	3,160	8,271	262	162
8. Other exports	—	—	95	745	—	684
9. Re-credits	—	—	693	1,651	—	138
10. Total credits	17,951	54,202	143,329	259,960	164	81
11. No. of Accounts opened	282	709	1,290	1,878	82	45
12. Average amount per account holder	64	76	111	138	46	24

According to the above table, of all items of non-traditional exports, gem exports have been the strongest contender for the convertible rupee facility over this period. CRA earnings from gem exports which amounted to Rs. 46·4 million in 1973 have increased to Rs. 165 million in 1975. This is an increase of 255 per cent over the 1973 figure. This phenomenal increase in export earnings from gems after this facility was introduced is an indication of the magnitude of the loss of foreign exchange which the country had suffered earlier. However, its relative importance has declined from 86 per cent in 1973 to 63 per cent in 1975. Partly, this has been due to the lower level of export earnings from the sale of gems and partly because other items in the scheme enjoyed better prospects. The rate changes proposed in the Budget 1974, downwards for gems and upwards for others, have further reduced the bias towards more earnings from gems being credited to CRA accounts.

The second highest CRA earner was industrial products which earned Rs. 62·8 million worth of CRA up to December 1975. The next came export of agricultural products which earned Rs. 18·5 million. Tourism Rs. 8·3 million, fish products Rs. 2·7 million, professional and consultancy services Rs. 249,000 and other exports Rs. 745,000 at the end of December 1975.

Sectoral composition of CRA funds is given in table 4.

Table 4

Sectoral Composition of Convertible Rupee Funds

(1973 – 1975)

Per cent

	1973	1974	1975
1. Gems	85.77	76.26	63.47
2. Industrial Products		14.44	24.19
3. Agricultural Products	12.52	5.60	7.10
4. Fish Products		0.85	1.04
5. Cultural Activities and Services	0.09	0.01	0.01
6. Professional and consultancy services		0.08	0.08
7. Tourism	1.61	2.20	3.18
8. Other exports		0.07	0.48
9. Re-credits		0.29	0 64
10. Total credits	100.00	100.00	100.00

A significant feature of the changes in the sectoral composition of CRA funds in these years has been the relative decline in the contribution of gem exports and a sharp improvement in the share of industrial exports. CRA earnings through exports of industrial products have increased from 14 per cent in 1973 to 24 per cent at the end of 1975. Compared with other sectors that have enjoyed the CRA facility, this is the only sector which recorded a substantial increase in its contribution to CRA earnings over this period. All the other sectors registered only marginal increases in their contributions to total funds. CRA earnings from agricultural products as a percentage of total credits have increased to 7 per cent in 1975. In 1974, it was 6 per cent. Although there is a gradual increase in the contributions of the tourist industry from 1.6 per cent in 1973 to 2.2 per cent in 1974 and to 3.2 per cent in 1975, it is not appreciable considering the facilities provided for the industry. The flow of funds to convertible rupee accounts by providing professional and consultancy services and by selling original and independent works of art has risen marginally.

The number of convertible rupee accounts with the authorised dealers at the end of December 1975 was 1878. At the begining there were only 282 accounts. There was a substantial growth in the number of CRA accounts in this period; the number of accounts increased by 151 per cent in 1973, 82 per cent in 1974 and 45 per cent in 1975. It is observed from Table 3, that the rate of increase of credits to CRA accounts is higher than the rate of increase of the number of acccunts. It indicates that convertible rupee funds are concentrated in the hands of a fewer account holders. The behavior of the average amount per account holder during this period also supports the argument. Although the rate of increase of the number of accounts opened has declined, the average amount per account holder has increased from Rs. 76,000 in 1973 to Rs. 138,000 at the end of 1975.

The variations of the convertible rupee accounts with authorised dealers for 1973-75 are given below.

Table 5

Convertible Rupee Accounts with Authorised Dealers
(1973 - 1975)

			1973	1974	1975
Indegeneous Banks	..	..	291	756	1093
Foreign Banks	..	..	418	534	785
Total	..	..	709	1290	1878

Source: Central Bank of Ceylon.

At the begining of the scheme, foreign banks of the country accounted for 59 per cent of the total CRA accounts. This composition has changed in favour of indegenous banks in the following years, and now the total number of accounts in indegenous banks has increased from 41 per cent in 1973 to 58 per cent in 1975.

Utilisation of CRA Funds

Funds which are accumulated in convertible rupee accounts can be used for financing imports, travel abroad and to make other payments which are not of a capital nature. The total amount of convertible rupees utilised for these purposes has increased continuosly over the past three years. A sum of Rs. 22·6 million was utilised in 1973 and it increased to Rs. 59·1 million in 1974 and Rs. 93·1 million in 1975. As a ratio of the total import bill of the country, convertible rupee funds utilised in 1973 amounted to 0·86 per cent. This ratio rose gradually to 1·28 per cent in 1974 and 1·74 per cent in 1975.

The amount of debits increased fourfold during the past three years. On the other hand, credits to the accounts doubled. Thus, the rate of utilization of convertible rupees (ratio of debits to credits) has been increasing steadily. During 1973, a sum of Rs. 22·6 million was utlised out of a credit total of Rs. 54·2 million; this represents a utilisation rate of 42 per cent. The utilisation rate in 1974 was 66 per cent and it rose to 79 per cent in 1975. The utilisation rate in respect of the credit and debit totals upto end of 1975 was 67 per cent.

Table 6 shows the pattern of utilisation of convertible rupee funds. Evidently, imports have been the mainstay of convertible rupee debits. In 1973, 85 per cent of debits was utilised for imports. The share allocated for imports declined slightly to 82 per cent in 1974 and it rose again to 87 per cent in 1975.

Table 6

Uses of Convertible Rupees

Period	Imports		Travel		Local Expenses		Total Debits	
	Rs.Mn.	%	Rs.Mn.	%	Rs. Mn.	%	Rs.Mn.	%
1973	19,143	84·59	3,037	13·42	0,451	1·99	22,630	100·00
1974	48,522	82·08	7,146	12 08	3,350	5·66	59,109	100·00
1975	81,424	87·43	9,322	10·01	2,382	2·56	93,128	100·00
Cumulative total as at December, 1975	149,089	85·30	19,505	11·16	6,183	3·54	174,777	100·00

Source: Central Bank of Ceylon.

Table 6 shows the composition of imports brought under Convertible Rupee Accounts. The bulk of covertible rupees has been utilised for importation of investment and consumption goods. In 1973, 85 per cent of total debits was used for imports. The proportion of convertible rupee debits allocated for imports in 1974 was 82 per cent and it was 88 per cent in 1975.

Table 7 shows the values of import licences issued during the past three years against CRA funds. On the basis of these data, it is seen, the bulk of outlays has been utilised for importation of trade quota items which mainly consisted of durable consumer goods. In 1975, 31 per cent of import outlays has been for trade quota goods; it was 48 per cent in both the previous two years. The major portion of import payments under trade quotas was allocated for chemicals and textile dyes. The other major trade quota items imported were electrical appliances, wire products, hand tools, chemical products, door and window fittings, and office equipment. Raw materials are also allowed to import under the CRA Scheme.

Table 7

Value of Import Licences issued against CRA Funds

	1973		1974		1975	
	Value Rs.'000	Percentage	Value Rs.'000	Percentage	Value Rs.'000	Percentage
Trade Quota Items	8,742	47·83	14,236	47·21	12,656	31·28
Raw Materials	5,678	31·04	8,630	28·12	9,769	24·75
Motor Vehicles	3,466	18·94	3,743	12·42	9,160	22·64
Direct User Items	293	1·59	3,358	11·13	5,499	13·59
Industrial Machinery and Plants	106	0·57	187	0·62	3,375	8·34
Total	18,292	100·00	30,154	100·00	40,459	100·00

In 1975, outlays on raw materials amounted to 24 per cent of CRA import payments; the proportions allocated for raw materials in 1973 and 1974 were 31 per cent and 28 per cent respectively. There has been a decline in the ratio of outlays on raw materials to total import outlays, over the past three years. Partly, this was attributable to larger import bill on direct user items and industrial plants and machinery. Durable consumer goods such as radiograms, electric organ and cloth as well as goods other than for personal use like scales, balances and machine spares were imported under the direct user category. The balance of Direct User imports which amounted to 1·6 per cent of the import bill in 1973 rose gradually to 5·9 in 1974 and 13·6 per cent in 1975. The higher demand for durable consumer goods, particularly electrical appliances, provides encouragement to CRA holders to make more such imports. The rise in imports of industrial raw materials and plant is noteworthy. In 1973, only a sum of Rs. 105,845 was utilised to import plant and machinery and this amount rose to Rs. 5,677,649 in 1975.

On the whole, the composition of imports under the CRA scheme has changed considerably. The relative importance of the outlays on motor vehicles, direct user items and industrial plant and machinery has increased at the expense of trade quota items and industrial raw materials. Given the fact that industrial raw materials and industrial plant and machinery are tied directly to investment activities, it appears that the share of convertible rupees utilised for these purposes has not been very impressive.[1] During the three years between 1973-75, the funds used to import investment and intermediate goods amounted to 31 per cent of total import outlays; 28 per cent for industrial raw materials and 3 per cent for plant and machinery. On the other hand, this share has not shown steady growth; it was 32 per cent in 1973, 30 per cent in 1974 and 32 per cent in 1975.

Measures should be taken to allocate a larger amount of convertible rupees to step up imports of a capital nature, rather than allow imports of items such as motor vehicles and direct user items which may create adverse spillover effects. Considering the tendency for fuel prices to increase, a higher level of imports of motor vehicles

---

1. It should be noted here that some commodities which can be treated as raw materials -e.g. chemicals and textile dyes are catogorised under Trade Quota items. In general, however, industrial raw materials and industrial plants and machinery are more closely linked with productive activities.

will result in a further increase in the import bill on oil. The sum of Sri Lanka rupees allocated for motor vehicles and direct user items amounted to 26 per cent of import outlays; 18 per cent for motor vehicles and 8 per cent for direct user items. Also, the amount used for motor vehicles and direct user items increased consistently; 20 per cent in 1972, 24 per cent in 1973 and 37 per cent in 1975.

The annual average ratio of convertible rupees used for travel as a ratio of total debits for the period 1973-75 was 11·68 per cent; 13·42 per cent in 1973, 12·08 per cent in 1974 and 9·56 per cent in 1975. The amount of convertible rupees spent on travel has more than doubled. Finally, convertible rupee holders have also used their funds to buy goods that are available for sale at tourist shops. Approximately 3 per cent of total debits were used to purchase such items during 1973-1975.

Achievements

The Convertible Rupee Account scheme was introduced in order to achieve two objectives; firstly, to step up exports of a non-traditional nature, particularly minor agricultural products and gems and secondly, to induce such earnings to flow through official channels. Of the non-traditional exports, the results achieved in the field of gem exports are most satisfactory. The spectacular increase in earnings from gem exports in 1973 and 1974 (Rs. 140·8 million and Rs. 109·5 million respectively) as compared with the magnitudes in any previous period indicates that the convertible rupee account facility has provided a strong boost not only for increasing the export volume but also for routing such exports through official channels. In fact, in 1973, the highest rate of increase shown in the value of export earnings of any important commodity was in the gem industry. According to customs data, export earnings from precious and semi-precious stones at Rs. 140·8 million in 1973 showed a significant increase of Rs. 128·8 million in relation to 1972. (In 1972 earnings from gem exports were Rs. 12 million). Until recently export earnings from gems through official channels were at a low level.

Earnings from other non-traditional exports have also risen. The earnings from selected industrial products have increased from Rs. 51·0 million in 1972 to Rs. 229 million in 1973 and to Rs. 509·6 million in 1974 or by 349 per cent and 123 per cent respectively.

The increase in 1973 was in contrast to a marginal increase of 3.7 per cent in 1972. In 1974, earnings from selected industrial exports more than doubled. These exports have been increasing both in volume and value over the last two years. When compared with the previous years, earnings from other agricultural and non-industrial exports, fish products and tourism for 1973 and 1974 also showed a distinct departure from the traditional trend.

As a result of these achievements, the non-traditional exports rose to 23 per cent of total exports in 1973, and the share of traditional exports fell to 77 per cent, which is an all time low level. The contribution of non-traditional exports to total export earnings in 1974 was 29 per cent, a further percentage increase of 6 per cent over that of 1973.

The success of this new export strategy could be primarily attributed to the positive measures that have been taken to promote exports. However, it is rather difficult to quantify or assess the role of the convertible rupee incentive in comparison with the various other incentives such as FEECs, tax holidays, tax concessions, etc. in increasing exports. But compared to other measures, the inducement provided by the CRA scheme is much more significant in the field of non-traditional exports. The increase in exports of gems and an expansion in gemming activities could be largely attributed to the CRA scheme. In the earlier years, the leakage of foreign exchange through black market operations had been mainly due to the inability of exporters and businessmen to purchase certain imported goods and to have access to foreign exchange legally for travel and other expenditures. This demand has to some extent been met through the operations of the CRA scheme.

There are indications that this scheme is now being progressively broadened to cover larger areas of non-traditional exports. The increase in the number of accounts and the amounts credited to these accounts also illustrate the success of the scheme.

Exports of gems accounted for 5.81 per cent of total export earnings of the country in 1973 while the corresponding figure for 1974 is 3.44 per cent. In comparison, earnings from gem exports were only about 0.2 per cent of total exports in 1970.

The noticeable increase in gem export earnings was mainly due to CRA facilities. But the incentives other than convertible rupees have also more or less contributed to higher earnings from gems. The State Gem Corporation established in November 1971 exported 26·8 per cent of the total exports of gems during the period August–December 1972. In 1973, the Corporation exported 28·8 per cent of gems. Although the FEEC scheme has been in operation since 1968, the sluggish growth of gem export earnings until 1972 shows that the FEEC scheme has not been effective in promoting the gem trade or in channelling exports through official organizations.

Tax exemptions for earnings from gem exports were granted with effect from 1st April 1972. Partly, as a result of this concession, the average monthly earnings from gem exports rose to Rs. 10·6 million in 1973 when compared to the figure of Rs. 1·5 million for the period July–November 1972. Prior to the tax exemption, CRA benefits were partly siphoned-off by high marginal rates of taxation coupled with compulsory savings.

Deficiencies of the Scheme

Under the new promotional measures, all non–traditional export proceeds qualify for both CRA and FEECs. Under the present set up, exporters are entitled to a FEECs premium of 65 per cent of the earnings in Ceylon Rupees in addition to the earnings received at the parity rate. However, only earnings on exports of packeted tea do not qualify for FEECs. For these exporters convertible rupees are given on the value of exports excluding FEECs. When such an exporter imports an article using the CRA funds and if that article is subject to FEECs under the existing procedure, such FEECs have to be paid from the CRA funds. As a result, the convertible rupee benefit of 2 per cent for these importers falls to 1·2 per cent when the FEECs is paid from this account. This in a large measure negates the incentive given to the non–traditional sector. This sort of discrimination is in fact, one of the negative aspects of the scheme. Thus, it could be suggested that all types of exports entitled to CRA should be granted convertible rupees at the official parity rate.

This aspect can be looked at one of two ways. On the one hand, all these facilities should not be given to the same exporters who constitute only a fraction of the total number of exporters of the

country.   And on the other hand, incentives other than the convertible rupee facility, such as FEECs; tax rebates etc,.   have not been very effective either in promoting the non-traditional exports or in bringing foreign exchange operations in the black market into legal channels.   In utilizing the convertible rupee funds, it can be suggested that imports which are subject to FEECs should be allowed at the FEECs rate and the whole payment inclusive of FEECs, should be made out of convertible rupee funds, the suggested modification of the CR Accounts maintained at official rate of exchange would enable the import of essential goods which are not subject to FEECs. Withdrawals for imports would generally qualify for FEECs.   This would be a check on the imports of non essentials.   The release of FEECs for domestic purposes would help local purchases and would assist the import substitution programme.   FEECs element, however, would be included with CRA, when money is drawn from CRA for the purposes of local disbursements.

One of the deficiencies of the scheme is that under the CRA scheme, only the earnings in convertible currencies from exports qualify for CRA benefits.   Therefore, earnings in other currencies will not qualify for this benefit.   Proceeds arising through bilateral trade agreement between Sri Lanka and another country – since convertible currencies are not involved in these transactions – will not qualify for CRA benefits.   For instance, exporters to China were denied CRA.   It is feasible to expand our exports to China, our largest trading partner, but private sector exporters prefer to export their commodities to other countries with whom we do not have payment agreement in order to get CRA benefits.   In the long run, it is disadvantageous to the country since private exporters prefer to undertake individual export orders to non–payment agreement countries, rather than to build up long term continuing export trade with payment agreement countries.   It is, however, interesting to note that the benefits of the CRA were given on exports of the same items to Afghanistan.   Also, exports to Asian Clearing Union countries (Sri Lanka, Iran, Pakistan, India, Nepal and Bangladesh) presently qualify for CRA facilities.   If these exporters will continue to qualify for CRA facilities, then, there would be a case for exports to payment agreement countries too being given the same facilities.   It is important that exports to all possible markets should be encouraged without any discrimination so as to support the export drive.   The main

objective of the CRA facility is to provide an incentive for increasing non-traditional products in general. Therefore, there appears to be no reason why exporters of non-traditional goods to China, together with exporters of such goods to other countries with whom we have bilateral payment agreements should not be given CRA facilities.

The facilities allowed to holders of CRAs have sometimes been used for importation of luxury articles and for purposes which are not of an essential nature. Under the direct user permits, imports of luxury items such as radiograms, electric organs, cassette players etc. have been allowed. On the one hand, to allow articles of this kind to be imported is highly unreasonable at a time when the basic essential imports are cut down to the bearest minimum levels and on the other hand, it has widened the opportunity for smugglers to sell their contraband openly along with the articles imported or purchased from tourist shops through CRA funds.

This scheme, as we have noted earlier, was designed to step up production and exports of non-traditional goods. It has had the effect of bringing in the private sector to participate in the diversification of the economy which hitherto had been a traditional import-export economy. In practice, CRA facilities have been utilized by State Corporations such as the Ceylon Petroleum, the State Gem, and the Ceylon Coconut Board. These Corporations were set up as state monopolies with the object of promoting their respective activities in the national interest. The government has furnished the capital, liberal allocations of foreign exchange and other assistance to them to function as state monopolies. It does not seem to be fair to grant these government enterprises the promotional concessions that were granted to the weaker section of domestic industries. It is irrational to grant further concessions to monopolies when all their needs are met by the State.

Under the present procedure, the entire CRA facilities accrue to the intermediaries such as export dealers while the producers of export commodities who actually need and deserve incentives do not receive any benefit. In the case of the tourist industry, for instance, the CRA facilities accrue to local travel agents while the hoteliers and transport agents who provide the bulk of services to tourists do not qualify for CRA. Similarly, producers of minor agricultural

exports too are not granted CRA. In these circumstances, the local exporters whose function is to link local producers with foreign buyers receive the entire benefits of CRA. To overcome these shortcomings it can be suggested that the total receipts of CRA should be allocated among all those who contribute to the export promotion especially producers of non-traditional products instead of granting such facilities only to the last stage exporters.

From the viewpoint of the development of local industries, the CRA scheme has some adverse implications. Certain consumer goods which can be produced locally such as synthetic textiles, leather cloth and transistor radios have been imported largely under the scheme. Given the fact that consumers prefer imported commodities to the locally produced, the demand tends to get diverted from local goods to imported items. The reduction of the demand for local goods restrains the possibilities of expanding local industries. Thus, the inflow of imported commodities which can be produced locally siphons-off the effects of direct and indirect import restrictions which designed to provide protection to infant industries in the economy.

The number of CRA holders amounts to less than 2,000 and it constitutes only a very low proportion of the total number of exporters. The more interesting fact is that out of this limited number of holders, only a very few exporters are able to maintain fairly large balances in their accounts. This means that the whole financial operation of the CRA scheme is in the hands of a small group. From an income distributional standpoint, this leads to push up the share of incomes of this group because the goods imported under the CRA are sold at very high prices in the domestic market.

Table 8
Sources of Convertible Rupee Funds

(Rs. thousands)

	No. of C.R. A/CS opened	1 Gems	2 Industrial Products	3 Agricultural Products (2+3+4)[1]	4 Fish products	5 Cultural Activities and Services	(5+6)[1]	6 Establishment Services and Consultancy Services	7 Tourism	8 Other exports	9 Re-Credits	Total Credits
1973 June	282	16,319		1,342			4		286			17,951
July	358	22,754		2,067			7		448			25,276
August	447	26,567		3,291			12		512			30,382
September	516	29,705		4,060			14		687			34,466
October	576	36,118		4,890			23		704			41,734
November	652	41,155		5,907			36		772			47,869
December	709	46,490		6,786			51		874			54,202
1974 January	752	48,872		7,449			131		1,015			57,467
February	791	49,802		8,645			147		1,140			59,734
March	839	51,813		9,998			165		1,362			63,339
April	881	55,525		11,542			176		1,611			68,855
May	929	60,321		12,947			239		1,646			75,154
June	984	63,049	9,148	5,078	860	5		47	2,044	56	403	80,691
July	1,062	78,981	12,390	5,404	878	6		51	2,320	70	448	100,547
August	1,113	82,271	13,267	5,694	1,006	6		56	2,577	79	452	105,407
September	1,145	85,497	14,952	6,333	1,037	7		68	2,698	82	457	111,130
October	1,181	90,651	16,239	6,801	1,164	7		100	2,994	90	535	118,583
November	1,244	93,739	17,541	7,280	1,189	7		101	3,101	92	563	123,614
December	1,290	109,305	20,703	8,027	1,225	8		113	3,160	95	693	143,329
1975 January	1,346	111,995	33,515	9,334	1,286	9		114	3,288	106	714	160,259
February	1,391	115,126	36,718	10,056	1,358	9		119	3,587	114	746	167,834
March	1,424	119,225	39,615	10,590	1,423	10		180	3,890	117	776	175,823
April	1,455	123,616	41,682	11,117	1,457	11		181	4,236	146	801	183,245
May	1,507	128,333	43,969	11,696	1,760	12		206	4,607	150	821	191,552
June	1,556	131,689	47,478	12,041	1,834	12		210	4,963	160	1,398	199,785
July	1,612	140,053	50,911	13,379	1,933	18		212	5,495	190	1,493	213,685
August	1,677	144,195	52,661	14,347	2,128	18		214	6,340	262	1,532	221,698
September	1,719	149,345	55,244	15,507	2,308	18		218	6,845	320	1,582	231,387
October	1,784	155,332	59,477	16,753	2,428	20		223	7,556	401	1,583	243,775
November	1,828	160,602	61,451	17,711	2,508	23		225	7,986	559	1,608	252,662
December	1,878	165,001	62,876	18,470	2,697	23		226	8,271	745	1,651	259,960

1. Breakdown is not available for the period prior May 1974.

Source: Central Bank of Ceylon.

Table 9

Uses of Convertible Rupee Funds

	1 Travel	2 Imports	3 Miscella- neous expenses	4 Local purchases	Total Debits
1973 June	417	1,769	14	—	2,200
July	649	3,000	286	—	3,935
August	1,005	4,848	296	—	6,149
September	1,383	7,875	354	—	9,612
October	1,607	12,338	394	—	14,340
November	1,780	16,301	428	—	18,516
December	3,036	19,142	451	—	22,630
1974 January	3,248	22,493	494	—	26,235
February	3,412	25,578	508	—	29,498
March	3,539	29,460	536	—	33,535
April	3,723	31,893	588	—	36,204
May	6,185	33,051	613	—	39,904
June	6,662	36,106	753	4	43,525
July	7,164	43,882	809	4	51,859
August	7,410	48,953	847	17	57,227
September	7,959	51,829	1,181	17	60,986
October	8,444	59,519	3,470	17	71,449
November	9,500	64,253	3,727	19	77,498
December	10,183	67,665	3,782	19	81,649
1975 January	10,529	73,569	3,959	19	87,578
February	10,824	77,561	3,998	19	91,903
March	11,429	81,515	4,010	19	96,974
April	12,163	86,764	4,044	19	102,990
May	12,893	91,831	4,146	27	108,898
June	13,479	115,795	4,180	32	133,487
July	14,350	120,996	4,412	57	139,817
August	15,081	125,244	4,545	58	144,929
September	16,013	130,946	4,910	68	151,936
October	16,953	137,766	5,566	82	160,367
November	18,477	144,108	5,726	83	168,394
December	19,505	149,089	6,092	91	174,777

Source: Central Bank of Ceylon

Table 10

Composition of Non-Traditional Exports

Year	Gem Exports		Exports of Industrial Products		Exports of Non-Industrial Products		Exports of Fish Products		Tourism		Total
	Rs. Mn.	% Change over previous year	Rs. Mn.	% Change over previous year	Rs. Mn.	% Change over previous year	Rs. Mn.	% Change over previous year	Rs. Mn.	% Change over previous year	Rs. Mn.
1968	2·0		5·1		111·7		2·3		11·0		132·1
1969	0·5	−75	5·2	2	115·4	3	3·0	30	17·0	54	141·1
1970	4·3	760	7·6	46	114·4	−0·1	4·8	60	21·5	26	152·6
1971	3·4	−21	44·3	483	112·4	−0·2	4·9	2	20·3	−6	185·3
1972	12·3	261	39·6	−11	113·4	0·1	11·4	133	44·0	117	220·7
1973	140·8	1045	206·5	421	162·4	43	22·4	96	80·0	82	612·1
1974	109·5	−22	482·8	134	283·3	74	26·8	20	107·1	34	1009·5

Source: Central Bank of Ceylon

Table 11

Non – Traditional Exports

	1968	1969	1970	1971	1972	1973	1974
1. Earnings from non-traditional exports (Rs. Mn.)	132·1	141·1	152·6	185·3	220·7	612·1	1009·5
2. Total Export earnings(Rs.Mn.)	2,035	1,916	2,033	1,947	2,009	2,617	3,472
3. Non-traditional export earnings as a percentage of total export earnings	6·5	7·4	7·5	9·5	11·0	23·3	29·0

Source:　Central Bank of Ceylon

Table 12

Export Volume Indices for Non – Traditional Exports

	20 Minor products	% Change over the previous year
1967	100	—
1968	116	16·00
1969	118	1·72
1970	122	3·39
1971	125	2·46
1972	128	2·40
1973	157	22·66
1974	151	−3·82

Source:　Central Bank of Ceylon.

Table – 13

Export Volume of Other Agricultural and Non-Industrial Commodities

	1967	1968	1969	1970	1971	1972	1973	1974
1. Coconut by-products group								
Coir fibre – bristle th. cwt.	538.0	563.9	506.7	474.0	534.1	531.3	578.3	645.0
Coir fibre – Mattress	1,065.0	1,260.0	1,180.3	1,172.6	1,307.2	1,289.5	1,441.1	1,429.0
Coconut shell Charcoal	273.0	319.0	385.2	583.4	629.9	539.2	566.2	581.0
2. Spices group								
Cinnamon Quills	52.8	61.8	65.9	70.0	72.6	77.0	87.3	99.2
Cinnamon Chips	7.9	16.6	21.6	12.7	15.3	21.5	40.8	51.8
Cardamons	2.4	2.5	3.2	4.0	3.7	4.2	3.7	3.0
Pepper	2.0	16.2	17.9	1.9	0.9	2.1	40.4	6.6
Cloves	0.8	1.0	4.6	5.5	0.2	2.1	12.1	11.3
3. Other Agricultural products Group								
Cocoa beans	23.2	34.8	25.4	29.9	30.1	30.7	22.6	20.2
4. Unmanufactured: – Tobacco Mn. lbs.	0.9	1.3	0.7	0.5	1.5	1.5	1.5	1.2
5. Manufactured products Group								
Precious and Semi precious stones Th. Carat	24.9	196.0	136.6	184.9	n.a.	288.2	649.7	682.4
Jewellery & goldsmiths ware Th. Tr. Oz.	—	—	—	—	—	—	—	2.5

Source: Central Bank of Ceylon

PROBLEMS OF AND PROSPECTS FOR THE PULP AND PAPER INDUSTRY IN SRI LANKA*

UPANANDA VIDANAPATHIRANA

Introduction

The importance of paper and paper board in the day to day requirements of people are well known. These requirements increase with the process of development of a country. The majority of the developing countries, however, have not become self-sufficient in their requirements of paper and paper board. Although this industry is generally considered to be capital intensive, the amount of capital employed could be varied. Since this is an industry with an agro-chemical base, it occupies an important position in agricultural economies. In Sri Lanka, the average expenditure on the import of paper and paper board during the period 1970 to 1975 has been Rs. 38 million per annum. The establishment of a pulp and paper industry based on local raw materials alone has therefore become of primary importance in the national economic context. This study is primarily concerned with the development problems of this industry in Sri Lanka with special reference to large scale production. The study also focuses on the production prospects for the industry based on small scale production units.

Basic Problems in the Large Scale Production of Pulp and Paper

In the present context where paper is in short supply and imports are restricted it is necessary to increase capacity for the domestic production of paper and paper board and to utilise the available local manufacturing capacity to the maximum in order to meet the demand of paper and paper board. In addition to the object of

reaching self-sufficiency in paper a programme to produce for export may be desirable because of the substaintial local raw material content in the product.

Table 1

Percentage Rate of Capacity Utilisation at Valachchenai Pulp and Paper Mill 1971-74

Year	1971	1972	1973	1974
Percentage rate of Capacity Utilisation ..	86	63	85	76

The quickest way of reducing the gap between supply and current demand is the full utilisation of available manufacturing capacity. However, the Valachchenai Mill of the Eastern Paper Mills Corporation,** the monopoly producer, has not been able to utilise the existing capacity to the maximum. The annual capacity of paper and paper board at the Valachchenai Mill is 22,500 tons. Table 1 reveals the percentage rates of capacity utilization during 1971/74. The average annual rate of under-utilization during the period 1971 to 1974 has exceeded 22 per cent. Although such a rate of under-utilisation of capacity may not be considered excessive in relation to other public sector industries in Sri Lanka, the rate of under-utilisation in this industry is of special significance from a national standpoint in view of the acute shortage in the supply of paper and paper board and the higher prices that the domestic consumer has to pay. Capacity under-utilisation has heavy social costs and constitutes wastage of scarce resources.[1] According to the information supplied by the Eastern Paper Mills Corporation (EPMC) the major causes for such a high degree of under-utilisation of capacity were shortages of raw materials and water, technical factors, frequent repairs to machinery and labour problems which together with other factors resulted in a total loss of 3922 hours of production in 1974.

** From January 1st 1976, Eastern Paper Mills Corporation is known as National Paper Corporation.

1. National Council of Applied Economic Research – "Under Utilisation of Industrial Capacity". New Delhi, India, 1966.

Table 2

Demand and Supply of Paper & Paper Boards
(1970 – 1974)

(Tons)

	1970	1971	1972	1973	1974
Local Production					
News print[1]	—	—	—	—	—
Fine paper[2]	7939	7792	8934	10914	9160
Paper Board[3]	826	541	4545	4101	4464
Other paper[4]	333	844	797	4322	3665
Total Local Supply	9098	9177	14276	19337	17289
Imports					
News print	4585	11785	11186	6457	8244
Fine paper	6105	3863	2370	2972	1030
Paper Board	8001	5570	1820	594	36
Other paper	14709	6129	6367	2903	1399
Total ·Import	33400	27347	21743	12926	10709
Total Supply	42498	36524	36019	32262	27998
Projected Demand[5]					
News print	23100	26150	27700	29600	31600
Fine paper	15000	16135	17100	18300	19500
Paper Board	6000	6725	7400	8100	9000
Other Paper	13900	14940	15800	17000	18100
Total Projected Demand	58000	63950	68000	73000	78200

Source: Eastern Paper Mills Corporation.

1. News print   — News print in sheets and reels.

2. Fine paper   — Typewriting, Duplicating, Banks and Bonds, Printing and writing, Offset Printing, Cartridge Paper, Azuralaid Ledger, Poster Paper, Manifold.

3. Paper Board   — Straw Board, Box Board, Manilla Board, Bristol ivory etc. Chip Board, Art Board, Cup Board, Excercise Book Covers, Other Bonds.

4. Other Grades — Greaseproof Glassine, Tissue (hard& soft), Coated paper and Board, Kraft Paper, Manilla Envelope, Kraft liner, Corrugating Medium, Miscellaneous.

5. The projected demand has been estimated by the E. P. M. C., the monopoly supplier of paper and paper board, on the assumption of the existence of a free market and an unrestricted demand for these products,

Table 2 indicates that the available total supply of paper products have not been sufficient to meet the projected demand for these products. Moreover, a large proportion of the totel domestic supply was imported, while the local mill has been working below capacity. The rates of under-utilisation given in Table 1 should be compared with the percentages of imports to focus upon the gravity of the problem in terms of the foreign exchange burden to the country.

Many of the present problems in the paper industry are associated with its location. The location of pulp and paper factories should be determined by the availability of water and raw materials in sufficient quantities, satifactory transport facilities, electricity and means of effluent disposal.

However, since most of these factors have not been taken into consideration in the location of this particular industry in Sri Lanka, it has created obstacles not only for the fuller utilisation of capacity but has also resulted in an increase in other expenditures, e.g., transportation costs.

Althogh water is not a major item of expenditure in the pulp and paper industry, the fact that a large amount of water is required in the production process necessitates the placing of a greater emphasis on the availability of water in close proximity to the factory site[1]. Further, since the quality of water should be maintained in terms of specifications, purification of water too is essential. However, the dual problems facing the pulp and paper mills namely the insufficiency of water on the one hand and the inability to maintain the quality of water on the other, have had a depressing influence on the efficiency of production. While the scarcity of water has become a routine feature at the Valachchenai factory there had been a loss of 128.30 production hours in 1974 due to this factor alone.

1. F.A.O. — "Economics of Pulp and Paper Enterprices and Financial Analysis' in Guide for Planing Pulp and Paper Enterprises—Rome 1973. (p.-147)

Although as stated earlier, the expenditure incurred in the supply of water in the production process is a minimal proportion in terms of the total cost of production[1] the adverse effects on the efficiency of production due to shortage of water and the deterioration in the quality of water, have not been insignificant.[2]

Although the available water at the Valachehenai Mill had been sufficient to meet the requirements of production at the beginning, it had become insufficient as the Mill's capacity was increased. The single machine used at first in the production process required 1·5 million gallons of water per day. The requirements of water were estimated to increase to 2·5 million gallons per day with the installation of the second machine for production of paper board[3]. The current consumption of water at the Mill is 2·8 million gallons per day while functioning at a level below full capacity. Thus, since the water available at the Vakaneri Tank is insufficient even to meet the current production capacity further expansion in capacity will no doubt lead to difficulties in production[4].

The production capacity at the Valachchenai Mill is expected to be increased to 18,000 tons per annum in 1976. The additional requirements of water to meet the capacity increase will be 0·8 million gallons per day[5]. Although the Sandwell Report of 1967 recommended the expension of capacity of this Mill by installing a machine with an annual production capacity of 9,000 tons for the manufacture of writing and printing paper under project II stage 2 of the Pulp and Paper Industry, this recommendation had not been implemented to date due to the inability of obtaining 5 million gallons of water per

1. In the budget for the year 1975 the expenditure on water per ton have been estimated as follows:
   Paper Products made out of straw—6% of total expenditure
   Paper   —9%
   Paper Board   —9%

2. The requirements of water for the mill are being obtained from the Vakaneri Tank situated 5 miles away. During the dry season the low level of water in the tank results in the pumping of impurities together with water, which causes a retardation in production efficiency

3. Eastern Paper Mills Corporation - Pulp and Paper Industry in Ceylon, Vol. I Colombo 1970 (p-76)

4. The water retention capacity of the Vakaneri Tank is as follows:
   above sluice - 10450 acre feet
   area at top water level - 1120 acres

5. Cost statements of the Valachchenai Mill for the year 1974 were based on an estimate of 50,498 gallons of water for the production of 1 ton of paper and paper board.

day to operate 3 machines[1]. A further proposal had been the integration of the existing production facility of 75 tons per day / 22500 tons per annum at Valachchenai with additional facilities for 200 tons per day / 60,000 tons per annum[2]. The estimated requirements of water to meet this expansion in capacity is 9 million gallons per day or 10,000 acre feet of water per annum. This proposal might lead to a problematic situation since the proposals for the expansion of production have not taken into consideration the availability of a sufficient amount of water especially in a situation where it had been found difficult to maintain even the available capacity owing to the non-availability of water[3].

It has been decided that one of the following three alternatives, namely:

(i) increasing the storage capacity at the Vakaneri Tank;

(ii) construction of a new storage reservoir upstream on the Maduru Oya and

(iii) pumping water from the Mahaveli Ganga, should be taken into consideration in obtaining sufficient water for the industry.

The consultants of the pulp and paper industry have pointed out that the most reliable source to ensure the supply of at least 2¾ million gallons of water per day is the Mahaveli Ganga[4]. However, since the Mahaveli Ganga is located 30 miles away from the Valachchenai Mill, non-availability of capital resources has become the major bottleneck in implementing this proposal[5]. Although unit costs of production in an industry could normally be reduced by an expansion in capacity arising out of increased outlay and service facilities, the pulp and paper industry in Sri Lanka has not been able to achieve

---

1. Sandwell Report (V 1873/1) 28th April, 1967.

2. Eastern Paper Mills Corporation – Prospects for the expansion of the Pulp and Paper Industry in Sri Lanka – Colombo August 1974 (p-3)

3. In this discussion, availability of water had been taken as the only factor affecting expansion of capacity. Other factors that affect expansion of capacity will be discussed later.

4. Report on the water supply scheme for Valachchenai Mill, 1961 – M/s Husband and Company Consultants.

5. According to the Report on the water supply scheme for Valachchenai Mill, 1961; the cost of providing a pipeline of 18" diameter for a distance of 52,000 yards from the Mahaveli Ganga to Valachchenai Mill is Rs. 14·7 million.

such economies because of the adverse effects arising out of non-availability of water which is an independent variable in the manufacturing process.

The primary reason in favour of the establishment of a pulp and paper industry at Valachchenai was the availability of direct raw materials mainly straw, in close proximity. Out of an input of local raw materials amounting to 80 per cent of the total input, more than 60 per cent is straw[1]. It is unfortunate that this industry which is located in close proximity to the source of the main raw material has not been able to muster this raw material in sufficient quantities. Further heavy expenditure has been incurred in the procurement of raw materials. A considerable sum, many more times than the procurement costs have been spent on transport of these raw materials.

Table 3

Purchase Price and Total Expenditure on the Procurement of Straw

(Rupees per ton)

	1969	1970	1971	1972	1973	1974
Purchase price	50·00	50·00	50·00	50·00	50·00	60·00
Total expenditure at Factory premises inclusive of transport charges	98·30	118·22	115·18	151·00	134·85	218·55

Source: Eastern Paper Mills Corporation.

The Table 3 indicates that while in 1969 the total cost per ton of paddy straw to the EPMC was 96 per cent higher than its purchase price, the relevant rate for 1972 had been 200 per cent. In contrast to an increase of Rs. 10/- per ton in the purchase price of straw in 1974 as against 1973, the rate has increased to 265 per cent in 1974. Considerable expenditure has to be incurred by the pulp and paper industry on the procurement of straw as this item cannot be preserved or stored for a considerable length of time. This is not a factor peculiar to Sri Lanka but is common in all developing countries where soft-wood, the traditional raw material of the industry is not found in

---

1. Eastern Paper Mills Corporation, Cost Statements.

plenty and agricultural residuals are utilised instead. The costs are high where straw is used as a raw material since in addition to the cost of collecting, considerable sums have to be spent on handling, baling, transportation and storage[1].

Table 4

Cost of Straw by Major Cost Categories

(Rupees per ton)

	1970	1972	1974
Payment to suppliers	50·00	50·00	66·93
Transport cost[1]	15·81	32·96	32·44
Baling, Stocking, bundling, roofing[2]	28·06	46·13	63·33
Administrative and overhead[3]	13·19	9 05	28·61
Miscellaneous works	11·16	12·86	26·24
Total cost	118·22	151·00	218·55
Total supply of straw (Air dry tons)	13547	22609	11690

Source: Eastern Paper Mills Corporation

Notes : 1. Includes internal transport
2. Includes loading and unloading
3. Includes salaries and wages, stationery and electricity.

It is intelligible from Table 4 above, that the major constituents in the per ton cost other than the purchase price are the cost of baling, stocking, bundling and roofing. While in 1970, this item constituted 23 per cent of the per ton cost, it amounted to 29 per cent in 1974. The increase in the per ton cost of this category of expenditure during the period 1970 had been 125 per cent. This increase was due to the fact that more equipment and labour have been utilised in the former. Furthermore, the quantity of straw purchased in 1974 declined by 15 per cent as compared to 1970. The transport costs in 1974 showed an increase of over 120 per cent as compared to 1970.

---

1. F. A. O. 'Fibrous Raw Materials" by Morris Wayman in "Guide for Planning Pulp and Paper Enterprices – Rome 1973 – (p. 255)

The factors for the increase in the average per ton cost were the decline in the total amount of straw procured and the increase in the price of fuel. Administrative and overhead costs too have shown a two-fold increase between 1970 and 1974. This item of cost was 12 per cent of the total per ton cost in 1974.

Table 5

Quantity of Straw Purchased (distance-wise) 1971 – 1974

Air dry tons

Distance from factory—miles	Centre	1971	1972	1973	1974
—	Factory site	6,595	5,490	4,171	2,471
16	Koduwamadu	2,878	2,319	1,596	1,310
16	Punanai	250	245	131	22
58	Samanthurai	6,082	6,824	3,987	2,839
55	Veerapura	2,251	563	561	214
60	Oluvil	357	3,901	1.576	2,401
40	Thumbankerni	2,525	2,004	1,732	1,733
74	Uhana	157	204	176	189
26	Arasadichchenai	260	1,050	1,253	506
Total		21,355	22,609	15,548	11,690

Source: Eastern Paper Mills Corporation.

At present the Valachchenai Mill procures straw from within a radius of 100 miles. There are 9 collecting centres where modern machines are used in baling operations. While the maintenance costs of these centres have been considerably large, there has been a continuous decline in the amount of straw collected at these centres since 1972. According to the figures given in the Table 5, the quantity of straw collected in 1974 was approximately half the quantity collected during 1971.

There is a variation in the expenditure incurred by straw collecting centres depending on the amount of straw collected. Quantities collected at a few collecting centres, the distance from the factory to the centre and the expenditure per ton of straw collected in 1974 are as follows:

Table 6

Expenditure on the Collection of Straw in 1974 in Some Selected Collecting Centres

Centre			Distance from factory (miles)	Collection (Tons)	Expenditure per ton (Rs.)
Punanai	..	..	16	22	609
Weerapura	..	..	55	214	407
Uhana	..	..	74	187	335
Oluvil	..	..	60	2,400	200
Samanturai	..	..	58	2,400	200

The Table 6 indicates that greater utilisation of capacity at the centres will considerably reduce per ton expenditure on collection. These collection centres are located in the Batticoloa and Amparai districts. While the acreage of paddy cultivated in these two districts amounted to 278,408 acres, the straw available from this acreage is approximately 139,203 tons[1]. If a wastage factor of 10 per cent is assumed, at least 60 per cent out of the 90 per cent remaining should be made available for the pulp and paper industry. However, the Valachchenai mill was able to procure only 15 per cent of the total supply in 1974. The Eastern Paper Mills Corporation has estimated a requirment of 40,715 tons of straw during 1975 in terms of current capacity at the Valachchenai Mill[2]. To achieve this target, the collection centres should at least quadruple the collection. An advanced method of collecting straw will have to be used for this purpose. The success in the collection of straw will also be an important factor in projecting the expansion of capacity at the Valachchenai Mill.

Another problem associated with the location of the industry is the distance from and to the capital city of the country. It has been estimated that the import content of the aggregate input at the Valachchenai Mill is 20 per cent. These imported inputs need to be transported 180 miles from Colombo to the Mill site by train or by lorry. Similarly, the produce of the mill also has to be transported a similar distance to reach the main sales outlets. This has resulted in

---

1. According to the publication 'Pulp and Paper Industry' —(Vol. 1) this estimate had been based on a supply of ½ ton of straw for each acre of paddy cultivated in these two districts in 1974

2. Eastern Paper Mills Corporation – Budget for 1975

heavy expenditure on transport[1].   The utilisation of facilities at the Port of Trincomalee that would reduce transport costs have not received serious consideration[2].   This would indicate that the shipping services offered by the Shipping Corporation and the distribution procedure of products of the Valachchenai Mill have not been geared for mutual benefit.   However, a feasibility study may be necessary to evaluate as to whether the Shipping Corporation should undertake shipping services to the Port of Trincomalee to facilitate the transporation of produce of the Valachchenai Mill by sea. Co-ordination between the Shipping Corporation, the port authorities and other organisations will be necessary to provide the required facilities.

Technical factors have also affected adversely in the efficient operation of the Valachchenai Mill.   These alone have contributed to a loss of 959 hours of work in 1974.   Approximately, 50 per cent of the loss could be accounted for by deficiencies in the mixture of raw materials which resulted in the malfunctioning of machinery, while the balance was due to defects in machinery[3].   Raw materials having long fibre in sufficient quantities is required for the efficient operation of machinery and for the production of strong paper.   In the absence of raw material with long fibre in sufficient quantities a well balanced mixture input should be fed in for the proper functioning of machinery. A proper input mix will only be possible if a device that would record the correct mix is provided.   In 1974, 713 hours of production were lost owing to repairs to machines In this connection it may be relevant to mention that certain developing countries have developed novel processes to reduce inefficiencies in this industry.   A proper and continuous recording procedure by maintaining individual history sheets for each machine will be a possible solution[4]. Such maintenance procedures are required to lengthen the effective life of machinery and to obtain a product of acceptable quality.   It will also cause savings in

---

1·   The cost of transporting raw materials from Colombo to Valachchenai is approximately Rs. 77·50 per ton in 1975.
2·   Naylor G. W., Report of the Reconaissance Misson to Ceylon in connection with the State Industrial Corporations (Govt. Press, Colombo, 1966) (p.11)
3·   The resulting low strength or poor quality of paper owing to the absence in sufficient quantities of raw material with long fibre is known in paper production terminology as "wet and dry and break"
4·   V. Poddar, "How to raise the level of efficiency of the pulp and paper mills in developing countries" – Expert Group Meeting in Pulp and Paper – Unido, Vienna, 1971.

overheads. The Valachchenai Mill has lost 223 hours in 1974 due to failure in electricity supply, Although this could be considered an extraneous factor, it indicates the importance of co-ordination with external agencies to maintain efficient production levels.

There may have been a general upliftment of the economic and social conditions of the population in the Eastern Province due to the establishment of this industry as it has provided employment and additional source of income by way of supply of raw materials such as straw to the rural area.[1] On the other hand, the present location of the industry appears to have contributed adversely to its commercial viablity. It had resulted in heavy expenditure on transportation and has also resulted in a low capacity utilisation level. If the industry was located in an area where water, raw materials and other factors were available in economically feasible quantities, the contribution to the rural economy would have been greater and the profitability would have been higher. The two-fold considerations namely, the impact of the industry on the economy and the profitability of the industry which are the major satisfying conditions for any industry, therefore are equally valid for the pulp and paper industry too.[2]

The cost that would be incurred to provide increased production capacity based on a large scale production method will be uneconomical in the existing set up. Further a major implication of the local pulp and paper industry is the high cost of imported raw material input. Between 1971 and 1974 the percentage of imported raw materials in the total input averaged to 21 per cent. In value terms this input was 68 per cent of the total input value.[3]

---

1. According to the data supplied by EPMC., the value of straw collected during the period 1957-1974 amounted to Rs. 12·6 million and this can be treated as a fact that contributed to raise the income of people in rural areas in Eastern Province.

2. M. D. Bryce, Industrial Development, A guide for accelerating Economic Growth, McGrove Hill Book Co., Inc., New York (p. 15).

3. The imported raw materials are mainly bleached kraft and bleached sulphate while the local raw materials are mainly straw and waste paper, Waste paper is however a very small proportion of the total input.

Table 7

Raw Material Input – Domestic and Import Content

	1971		1972		1973		1974	
	Local	Im-ported	Local	Im-ported	Local	Im-ported	Local	Im-ported
Quantity of raw materials (tons)	14257	3410	16128	4896	25323	6405	16989	4185
Percentage in terms of quantity	81	19	23	23	80	20	80	20
Value of raw materials (Rs. Million)	1·59	4·34	3·04	6·20	5·85	7·57	3·80	11·9
Percentage in terms of value	25	75	33	65	44	56	24	76

Source: Central Bank of Ceylon

Note: 1· Import prices are c.i.f.
2· Local prices are based on the landed costs.

The Table 7 indicates that in 1974, imports contributed to 20 per cent of the total quantity of the raw material input while the cost of these inputs was 76 per cent of the total input cost. The need to import certain raw materials was a result of the non-availability of domestic raw materials having long fibre. Use of raw materials such as straw which contains short fibre results in the production of paper with insufficient strength. Such fibre affects the efficient functioning of machinery too. Thus, if the production process is to function smoothly, the proportion of raw material with long fibre should be substantial.

Coniferous timber which is a raw material with long fibre is the traditional raw material of the pulp and paper industry. However, developing countries in the tropics have successfully utilised bamboo, kenaf, tropical coniferous pines, sugar cane waste etc·, in place of traditional raw materials. These can be grown in Sri Lanka too[1]. Straw which constitute 60 per cent of the raw material input are

---

1· Experiments conducted at the Valachchenai Mill utilising these raw materials have been successful. Further the cultivation of these raw materials have been successfully experimented at the Punani farm and in lands belonging to the Forest Department.

available in large quantities in the country. Unfortunately, even after 20 years of the establishment of the industry, it has not been possible to obtain locally the required amount of raw material with long fibre. Consequently, the adverse effects of the increasing import prices for these items have been felt in the industry. While the quantity of imported raw material has increased by 23 per eent during the period 1971 to 1974, their import value has increased by 140 per cent.

Further, although certain raw materials such as bamboo, hard-wood and kenaf are available locally, the Valachchenai Mill does not possess the required equipment to process them[1]. Plans have been drawn up to use hardwood in large quantities at the Embilipitiya Mill. However, machinery that could process local raw materials has not been installed at the Mill. It could, therefore be stated that not only had there been a neglect in the production of local raw materials but there had also been a neglect in the usage of locally available raw materials.

A major expenditure category in the industry other than the expenditure on imported raw materials is the expenditure on chemicals[2]. The import content of chemicals too is high in this industry.

The Table 8 indicates that the average import content of the chemicals used during the period from 1971 to 1974 at the Valachchenai Mill had been 74 per cent of all chemicals used and in value terms 60 per cent of the total. The utilisation of locally produced chemicals have increased by 125 per cent during this period, while that of imported chemicals have increased by 100 per cent. During the same period the increase in the value of the local and imported chemicals has been 125 per cent and 366 per cent respectively.

---

1. Arrangements have been made to import a chipper machine.
2. Chemicals are used in the pulp and paper industry for the following purposes:
   (i) to bleach pulp to give the required whiteness;
   (ii) to size paper for the attainment of required water resistence and other properties that give good writing and printing characteristics;
   (iii) to obtain the required smoothness for better printing and ink receptivity;
   and (iv) for surface treatment to give required characteristics to suit specific uses.

Table 8

The Utilisation of Chemicals – Locally Produced and Imported

	1971		1972		1973		1974	
	Local	Imported	Local	Imported	Local	Imported	Local	Imported
Quantity (tons) ..	766	2557	882	2477	1826	4524	1689	5345
Percentage in terms of total utilised quantity ..	24	76	26	74	29	71	24	76
Value (Rs. Million) ..	1·19	1·45	1·35	1·57	2·12	3·32	2·70	6·76
Percentage in terms of value ..	45	55	46	54	39	61	29	71

Source: Central Bank of Ceylon

Note: 1. Import prices are c.i.f.
2. Local prices are based on the landed cost

The industry uses caustic soda, salt cake, chlorine, lime etc., of which caustic soda, chlorine and lime have been available locally. The chemicals that are in use in the pulp and paper industry are determined by the pulping process used. Presently, the Valachchenai Mill uses sulphur that is imported instead of caustic soda that is available locally[1]. This is because of the fact that the factory has used the mono–sulphate pulping process. The selection of the proper pulping process suited for Sri Lanka should be based on the local availability of chemicals in order to save foreign exchange.

It is stated that the Embilipitiya Mill, when it commences operations in 1976, would use the soda process which uses caustic soda and chlorine[2]. It is estimated that the factory would require 3375 tons and 714 tons respectively of these items per annum. It may be relevant to note that the annual capacity at the Paranthan Chemicals Factory is 1600 tons of caustic soda and 1400 tons of chlorine

---

1. The basic methods of producing pulp for manufacture of paper are the chemical process, part chemical and mechani   process. Chemical process is appropriate where non-traditional raw-materials such as straw are used since chemicals have to be used to remove the extraneous matter that is found in the raw materials.

2. Eastern Paper Mills corporation – Pulp and Paper Industry in Ceylon. Vol. 1 – Colombo 1974.

respectively.   This would indicate that an expension in the capacity for the production of caustic soda would be nececsary to sustain a large pulp and paper industry in Sri Lanka.   Since chemicals would also be needed to meet the requirements of the small–scale and hand–made paper industry, the increase in the production of paper would no doubt require the expension of capacity at the Paranthan Chemicals Factory.

The relatively high prices of locally produced chemicals too have contributed to the high cost of production of locally produced paper and paper board.   The Valachehenai Mill has spent Rs. 4·19 million and Rs. 1·7 million on caustic soda and chlorine respectively during 1974.

Table 9

Price of Chlorine and Caustic Soda – May, 1975

	Locally produced(i)	Foreign(ii)	
		Low	High
Chlorine (I ton) ..	Rs. 3,800	Rs. 871	Rs. 1,063
Caustic Soda – Solid			
(1 ton) ..	Rs. 4,080	Rs. 1,898	Rs. 2,248

Sources: (i) Paranthan Chemicals Corporation
              (ii) Chemical Marketing Report,
                    May, 1975.

It is apparent from table 9, that the prices of the Paranthan Chemicals Corporation, for caustic soda is double that of the foreign price while the price of chlorine is more than four times the foreign price.   This indicates that the high price of locally produced chemicals can have an adverse effect on production costs.   It is therefore necessary to bring down the prices of chemical inputs to produce pulp and paper in an economically viable manner.

In view of the facts that have come to light in the above discussion, it may not be feasible to have a capacity of more than 20,000 tons per annum for any single pulp and paper mill that will be established in Sri Lanka.   The proposed expansion of capacity at the Valachchenai Mill to 60,000 tons per annum and the establishment of

a factory of 90,000 tons[1] capacity in the North Central province might therefore create bottlenecks arising out of the limited availability of raw materials, water and even capital[2]. The cost that would be incurred to provide increased production capacity based on large scale production methods will be uneconomical in the existing set up. However, since the expasion of the paper and paper board industry is of utmost importance, there is a need to consider the feasibility of opening up small scale production units together with large scale production facilities.

Small-Scale Pulp and Paper Production Units vs Large-Scale Pulp and Paper Mills

The scale of production is determined by the grades to be manufactured at the mills, the quantity produced, the existing economies of scale for production units of various size and other related factors[3]. The definition of the scale of a factory may vary from country to country. In the major pulp and paper exporting countries, mills producing upto 200 tons per day of chemical pulp, newsprint or kraft liners are considered small-scale units[4]. In India, mills producing 50 to 100 tons per day are considered to be of a large-scale nature while those producing 5 to 10 tons per day are considered as small-scale[5]. Production units wherein a good proportion of the total output is made up of writing and printing paper, wrapping paper and mill board and whose output is less than 10 tons per day are generally considered to be small-scale units[6].

The large-scale production units of pulp and paper in Sri Lanka are those mills which are included in the development plan of the Eastern Paper Mills Corporation[7]. The capacity of Valachchenai

---

1. Eastern Paper Mills Corporation – proposals for the expansion of the pulp and paper industry in Sri Lanka, Colombo, May, 1974.

2. It is estimated that the establishment of a mill in the North Central province to produce 300 tons per day 90,000 tons per annum would cost Rs 850 million while the foreign component would be Rs. 400 million.

3. F.A.O. – small scale industrial pulp and paper production – Proceedings of the conferencej on pulp and paper development in Asia and the Far East–Vol. I, United Nat ons. Bangkok 1962 (P–142).

4. Ibid

5. V. Podder, A Guide to Manufacture of Paper on Small-Scale; Times of India, Bombay, India, 1960 (p-1).

6. F.A.O. – Pulp and Paper Development in Asia and the Far East–Vol. 1.

7. All Production units that are covered under the development plan have a capacity of more than 10 tons per day.

Mill is 35 tons of paper and 40 tons of paper board per day. Small-scale production units have been introduced in Sri Lanka only during the recent past.   While the pilot project established at Piliyandala in 1974 has a capacity of $\frac{1}{3}$ ton per day, the units at Kotmale, Attanagalle and Mahiyangana produce strawboard at a current capacity of $\frac{1}{2}$ ton per day.   These units have not so far developed into commercial viable enterprises.

The Suitability of Partly Mechanised and Labour Intensive Production Processes

Although the quality of paper and paper board produced by partly mechanised and labour intensive units are inferior, such products could however meet market requirements.   The establishment of partly mechanised units are dependent on the techno-economic status of each country.   Since consumer tastes do not demand an extra degree of fineness of the products[1] and because the process tends to be of a low cost nature,[2] partly mechanised processes seem to suit developing countries such as Sri Lanka.

Unlike traditionally labour intensive industries such as handloom weaving and ceramics, the hand made paper industry has not taken root in this country.   This may be because of the fact that specialised equipment is required in this industry even though they may have a limited output and may need relatively efficient operatives.   A high degree of attention to the production process is required without which the final product would not be marketable.   Proper training can produce efficient operatives.   Paper and paper board of the utility class manufactured in these labour intensive production units have been found to have output of an acceptable quality at a reasonable cost[3].

---

1.   The writer had the opportunity of inspecting the products manufactured at the Piliyandala Pilot Project.   These products namely bond paper, drawing paper, packing paper, linen paper, greeting cards, straw board and waste paper board, all of which were manufactured under the guidance of Indian experts were of an acceptable quality.

2.   An evaluation made in 1972 revealed that production units having a capacity of 3 tons per day are able to produce wrapping paper and writing paper at relatively low costs as compared to production costs at the Valachchenai Factory for these items.   Please see 'A National Plan for the Development of the Paper and Paper Board Industry in Ceylon by S. S. Silva, CISIR, Colombo, 1972.

3.   S. S. Silva – Preliminary Project Study on the establishment of hand made paper and paper board industry in Ceylon, CISIR, Colombo, 1972.

A major bottleneck in the establishment of capital intensive production units for the manufacture of paper, in Sri Lanka is the non-viable nature of the distribution pattern of raw material sources. Cost of procurement of straw, the major raw material input is very high. The Valachchenai Mill requires 225 tons of straw per day to meet its daily capacity of 75 tons of paper and paper board. 450 acres of paddy per day or 135,000 acres of paddy per annum will be required to obtain this quantity of straw[1].

Table 10
District-wise Supply of Paddy Straw 1973/74

Zone and District		Extent Sown (Acres)		Total	Supply of Straw (Tons)
		Maha 1973/74	Yala 1973/74		
Wet Zone	..	384,014	336,959	720,973	360,486
Colombo	..	60,604	54,430	115,034	57,517
Kalutara	..	50,932	47,226	98,158	49,079
Galle	..	57,424	54,610	112,034	56,017
Matara	..	48,106	47,287	95,393	47,696
Kegalle	..	27,466	26,825	54,291	27,145
Ratnapura	..	37,061	35,227	72,288	36,144
Kandy	..	48,424	44,352	92,776	46,388
Nuwara–Eliya	..	18,107	12,512	30,619	15,309
Badulla	..	35,890	14,490	50,380	25,190
Dry Zone	..	933,824	383,280	1,317,104	658,552
Puttalam	..	34,007	11,015	45,022	22,511
Kurunegala	..	142,582	112,973	256,555	128,277
Matale	..	28,163	16,116	44,279	22,139
Moneragala	..	21,656	4,568	26,224	13,112
Jaffna	..	86,735	11,425	98,160	49,080
Vavuniya	..	55,860	4,187	60,047	30,023
Mannar	.	47,422	4,334	51,556	25,778
Anuradhapura	..	134,805	30,811	165,616	82,808
Polonnaruwa	..	70,264	43,572	113,836	56,918
Trincomalee	..	57,126	10,933	68,059	34,029
Batticaloa	..	91,141	25,648	116,789	58,394
Amparai	..	101,021	60,598	161,619	80,809
Hambantota	..	46,079	30,990	77,069	38,534
Uda Walawe	..	16,163	16,110	32,273	16,136

Note: 1· Based on information available in the Annual Report of Central Bank of Ceylon, 1974.
    2· Based on the assumption that 1 acre of paddy will yield ½ ton of straw.

1· Based on the assumption that ½ ton of straw could be obtained from each acre of paddy. 3 tons of moisture free straw are required to manufacture 1 ton of paper and paper board.

In considering the distribution pattern of the sources of straw and the difficulties in its collection, it would seem that partly machanised and labour intensive production units are more appropriate for the local conditions. For instance 5,400 acres of sown paddy could produce the annual requirement of straw for a factory that has a capacity of 3 tons of paper and paper board per day. This would mean that it is feasible to establish such units in every district in the country.

The expansion of the capital intensive pulp and paper industry in Sri Lanka could lead to economic problems in the country mainly due to the balance of payments difficulties faced by the country. A capital intensive unit for the production of pulp and paper would have a relatively high cost of which approximately 75 per cent will be in foreign exchange.

Table 11

Estimated Total Investment[1] on New Capital Intensive Projects

(Rs. Million)

	Local	Foreign	Total
Embilipitiya Project ..	190	135	325
Rajangana Project ..	450	400	850

Sources: Eastern Paper Mills Corporation.

The capital requirements for the establishment of a partly machanised labour intensive unit is relatively low as compared to the capital required to establish a capital intensive unit. The estimated investment in 1974 for the Kotmale unit which has a capacity of ½ ton per day had been Rs. 3.5 million[2]. Further reductions in the cost of establishing a partly mechanised labour intensive unit is possible since such units can be locally fabricated. The capital requirements for these units are determined by the scale of production

---

1. Inclusion of FEECs and import duties has inflated the local cost relative to the foreign cost.

2. The Polonnaruwa Mill which has the same capacity cost Rs. 5 million in 1975 mainly due to inflationary trends in the economy.

and the number of employees required for such production.   For instance, the Batapola Paper Production unit which produces 75 lbs. of paper by employing 20 labourers incurred an estimated capital cost of Rs. 50,000.

Partly mechanised and labour intensive units have a better employment generating capacity in relation to capital intensive units. In capital intensive units the ratio of capital to employment is approximately 1: Rs. 58,000[1]. The ratio of capital invested per labourer in a partly mechanised unit will be 1: Rs. 16,000 (approximately)[2]. For a labour intensive unit the ratio will be 1:2,500 (approximately)[3]. The severe unemployment that exists in Sri Lanka demands the establishment of partly mechanised and labour intensive units.

The prices and general overhead expenditures which largely contributed to the determination of per unit costs are low in partly mechanised and labour intensive units. The low capital investments result in the accruel of low interest and depreciation charges. The high effluent disposal expenditures incurred by capital intensive units are not applicable to partly machanised and labour intensive units. Further the products of these units could be sold locally and thereby reduce transport costs.

The machinery required for partly mechanised and labour intensive units could be fabricated locally, thereby creating employment for the manufacturing industries and savings in foreign exchange. In terms of the Agreement between the Eastern Paper Mills Corporation and Voith-Krauss Muffei Consortium in 1973, the cost of machinery for the Embilipitiya Mill will amount to DM. 28 million[4].

---

1. Based on a capital investment of Rs. 92 000,000 and a labour force of 1560 at the Valachchenai Mill in 1971. An allowance of 10% had been given for the labour employed in import and distribution at the head office in arriving at the above employment figure.

2. Capital requirements for a unit producing more than $\frac{1}{2}$ ton per day of paper and paper board have not been estimated. The investment as well as the labour employed varies with capacity. V. Podder states that the labour required for units that have a capacity of 2 tons and 5 tons per day will be 70 and 166 respectively. The capital required for the establishment of a unit having a $\frac{1}{2}$ ton capacity and a labour input of 20 have been estimated at 1974 price levels.

3. Based on a capital investment of Rs. 50,000 for a unit producing 75 lbs. per day with an employment factor of 20 persons. Based on the performance of the Batapola Paper Products Unit managed by the Ministry of Planning.

4. Tappos, "A second integrated pulp and paper mill for Sri Lanka in pulp and paper journal of Sri Lanka Vol. 1 No. 1 Sep. 1974.

The experiments conducted by the Industrial Development Board in in the local fabrication of machinery required for partly mechanised units have been encouraging. The machinery used at the Kotmale unit have been fabricated locally. This also shows as to how the light engineering industries in Sri Lanka could benefit by the estiblishment of partly mechanised units which can be fabricated locally.

Problems in the Development of a Partly Mechanised and Labour Intensive Paper Industry in Sri Lanka

The low costs that prevail in partly mechanised and labour intensive production units will compensate for the inferior quality of paper produced in relation to the high quality of products of capital intensive units. The continuity of this type of unit is dependent on the economies that exist in their unit costs of production. Although the establishment of partly mechanised and labour intensive production units at the most feasible locations can achieve low costs of production, non-economic factors seem to be affecting the profitability of such units. The partly mechanised unit established at Kotmale, for which a feasibility study was not done prior to its establishment, has been unsuccessful since the factory does not have sufficient water for its operation during dry weather. Drying of paper board too had not been possible at this unit during rainy weather.

Currently only strawboard is manufactured by the partly mechanised process. The marketability of strawboard has been difficult, since such products face competition from high quality products coming out of capital intensive units. Unless a co-ordinated plan is established for the capital intensive, partly mechanised and labour intensive production units, the latter two types of production units will be at a disadvantage[1].

A co-ordinated plan for the production of pulp and paper that would permit the expension of partly mechanised and labour intensive units will be necessary to avoid shortages in paper, to provide additional employment and to utilise the raw materials that are dispersed

---

1. Since the straw board produced by the Sri Lanka Industrial Development Company could not be sold, the Ministry of Industries have required the Eastern Paper Mills Corporation to purchase part of the unsold straw board for sale through its own outlets.

throughout the country.   If such a co-ordinated plan is not drawn up these two categories of units will not, on its own, be able to face competition from the capital intensive units.   It will also be necessary for the Ministry of Small Industries to take a special interest in these units; like in the case of the handloom industry.

There had been no techno-economic feasibilty study on the most feasible size pertaining to small-scale paper production units. Further, experimentation on maintenance of quality of product and the minimization of costs of production in such units is of utmost urgency.

In view of the inability of capital intensive units to meet demand targets, it is necessary to encourage partly mechanised and labour intensive production units, so as to enable the country to reach the levels required for self-sufficiency in paper and paper board. Facilities for sale of the products as well as financial assistance for the estiblish-ment of such units are necessary. It is also necessary to allocate, depending on techno-economic factors, the types of products that should be manufactured by each of the categories of production units specified above.   Accordingly while those products of capital intensive units could be broadly earmarked for export, the products of the partly mechanised and labour units could be made available to meet local demand.

MOBILISING DOMESTIC CAPITAL RESOURCES IN SRI LANKA 1964 - 73

(A Review)

GRATIEN JAYAMAHA

The shortage of capital [1] was felt by Third World countries especially after the Second World War, when many of them became independent and most of them embarked on programmes of economic development. Capital has usually been accorded the key role in the development process and in this context the rate of savings determines the level of capital formation. This is especially so in the case of developing countries such as Sri Lanka, where the factor endowment reveals a scarcity of capital.

The capital required for development should be raised by domestic accumulation or should be obtained from abroad. The net overseas contribution of resources to developing countries has declined in recent years because of a slackening in the inflow of foreign capital, official and private combined. Hence, it is the common belief that the domestic sector must play a key role in generating capital for developing countries rather than depend on foreign capital.

Many economists emphasise capital accumulation as the major factor governing the rate of development. W. Arthur Lewis [2] in emphasising the need to accumulate capital from domestic sources, has stated that the

"central problem in the theory of economic growth is to understand the process by which a community is converted from being a five per cent to a twelve per cent saver".

---

1. In this paper capital is taken as denoting physical capital or capital formation in the ordinary national accounting sense. However, Simon Kuznets in his book Capital Formation and Economic Growth 1955. p. 21 suggests that the definition of capital be broadened to include all uses of current output that contribute to a long term rise in national product per capita, such as outlays on many items now classified under consumption, eg. outlays on education, recreation and material luxuries that contribute to the greater health and productivity of individuals and all expenditures by society that serve to raise the morale of the employed population.

2. W. Arthur Lewis, Theory of Economic Growth (New York, Harper and Row 1970) pp 224 - 225.

On the other hand the U.N. also stresses the need to mobilising domestic resources, in order to reduce the gap between the developed and developing countries of the world. The International Development Strategy in paragraph 41 identifies certain measures that the developing countries should take for a fuller mobilisation of the whole range of their domestic resources, while the Lima Action Programme (Section D (e) Paragraph (xxxiii) states that

"the developed countries should refrain from taking any steps which may interfere either directly or indirectly with the full and efficient mobilisation of the domestic resources of developing countries. There must not be any external interference in the programmes and priorities of the developing countries designed to achieve such mobilisation".

Both these pronouncements, which view the issue from different standpoints are of considerable significance. Hence, specific standards should be set up for their practical achievement.

The object of this paper is to provide a brief outline of domestic sector financial developments in Sri Lanka during the decade 1964-1973. Apart from describing the salient features in mobilising domestic capital resources in Sri Lanka, an attempt is made to appraise recent developments.

Mobilising Domestic Capital Resources

The mobilisation of domestic capital resources in Sri Lanka is particularly difficult since the level of income is relatively low. The source of mobilising domestic capital is savings. Low income does not permit enough savings to be diverted into investment and as a result domestic capital formation as depicted in Table 1 has been low. The extremely low level of capital formation in developing countries such as Sri Lanka could be primarily ascribed to a vicious circle of poverty. To break through this vicious circle of poverty, a nation must cut back on consumer spending and increase savings. Mobilisation of domestic capital requires the creation of an economic surplus which could be defined in economic terms as the

"excess of production over the minimum subsistence needs of the population".

Table 1

Gross Domestic Capital Formation in Sri Lanka (at current market prices)

Rs. Million

	1964	1965	1966	1967	1968	1969	1970	1971	1972 (Provisional)	1973 (Provisional)
1. Private Sector	627·9	513·7	577·9	737·0	823·6	1,378·1	1,338·4	1,280·3	1,370·2	1,599·2
2. Government and Public Enterprises(a)	485·2	499·5	617·2	640·0	875·6	875·1	1,216·5	968·9	747·4	1,030·4
3. Gross Domestic Capital Formation	1,113·1	1,013·2	1,195·1	1,377·0	1,699·2	2,253·2	2,554·9	2,249·2	2,117·6	2,629·6
(3) as a percentage of G.N.P.	15·1	13·4	15·3	16·8	19·1	24·2	26·4	23·1	21·1	25·3

Source: Central Bank of Ceylon

(a) Including corporations.

In other words, if domestic capital is to increase the economy must generate a surplus above current consumption that can be tapped and directed into productive investment.

The total amount of capital resources mobilised from the domestic sector can be regarded as the total sum of saving in the government, business and individual sectors. For each sector, saving is equal to the excess of income over expenditures on current account

The decision to save by each sector in an economy is influenced by the ability, the willingness and the opportunity to do so[1]. Thus each sector's savings can be written as a function of these three factors.

$$S = f(A, w, o)$$

Each of the independent variables of this equation would be functions of other economic and non-economic variables.

The ability to save would depend on such factors as real income (y), structure of population or dependency rates (n) and wealth (k). This may be denoted as

$$A = g(y, n, k, \cdots)$$

The willingness to save would depend on such factors as interest rates (i), cultural factors (c), the stage of life that one individual is in the life cycle (l). This willingness equation may be denoted as

$$w = h(i, c, l, \cdots)$$

The opportunity to save depends on such factors as the extent of financial intermediation available to the savings units (F) and on the possibility of using self generated funds for financing one's own investment (I_r). Thus the opportunity equation may be denoted as

$$0 = p(F, I_r \ldots)$$

In each sector this study estimates its savings as far as it is possible to do so. In view of the inadequate state of statistical information certain parts of the study will not have a much sounder statistical foundation.

---

1. Financial Intermediaries and National Savings in Developing Countries— U. Tun Wai – p. 85 - 86.

1. The Government Sector

In a country like Sri Lanka, where the increase of voluntary savings is bound to be a slow and a long term process, the greater part of the savings must come from the government sector. This is all the more important in a country where a large role has been assigned to the public sector.

The government sector as in the case of individual and the business sectors can also save or dissave. The government saves when its total revenue (excluding net borrowing) exceeds current (non-capital) expenditure. Table 2 indicates the current account surpluses and deficits for the last decade. In this period most of the budgets have shown surpluses in the current account. As Table 2 indicates, during the financial year 1973 government has saved Rs. 149 million through its current account. This has been the highest amount recorded during the period under review. But when this surplus of Rs. 149 million in 1973 is compared with the total capital expenditure in the same year, the government sector has contributed only 12·8 per cent to meet its total capital expenditure.

This low rate of savings by the governmet is mainly due to the major role that the government has had to play in the socio-econmic development of the country. Government has undertaken large scale programmes of puplic expenditure and a good portion of revenue has to be directed towards financing these ventures. Thus public savings in the past decade have been negligible, but when taking into account the expensive welfare commitments of government the efforts that have been made to contain the size of the deficit in the current account itself can be regarded as a fair achievement. Table 3 gives an account of the increasing volume of public outlays and also of the growing gap between current receipts and expenditure. This shows that the government either has not been able to increase revenue or to cut down recurrent expenditure as percentage of G.N.P.

1·1 Government Expenditure

Government can enlarge savings through its current account by reducing expenditure. Table 3 indicates the composition of total expenditure classified into development and non-development expenditure. An interesting feature in the period under review has been the

Table 2

Utilisation of Current Account Surplus for Financing of Capital Expenditure

Rs. Million

	1963/54		64/55		65/56		66/67		67/68		68/69		69/70		70/71		71/72		1973	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
1. Current Account Surplus (+) or Deficit (−)	−33.3	−6.9	78.7	14.7	19.5	3.6	86.3	12.4	14.8	1.9	139.7	15.3	101.2	11.5	−260.9	−32.6	−52.7	−4.6	149.0	12.8
2. Total Capital Expenditure	483.2	100.0	535.4	100.0	539.7	100.0	695.4	100.0	739.2	100.0	909.8	100.0	883.1	100.0	799.6	100.0	1,140.2	100.0	1,160.8	100.0

Source: Central Bank of Ceylon

Table 3
Government Receipts and Expenditure

Rs. Million

	1963/64	64/55	65/56	66/67	67/68	68/69	69/70	70/71	71/72(a)	1973
1. Revenue	1,759	1,817	1,833	1,955	2,431	2,790	2,981	2,893	4,102	4,053
1.1 Taxes	1,406	1,480	1,452	1,559	1,660	1,755	1,876	1,952	2,760	2,752
1.2 Net receipts of public enterprises	227	228	247	250	273	294	239	253	379	312
1.3 Other revenue receipts	126	109	134	146	498	741	866	688	963	·989
2. Non-Development expenditure	971	903	947	936	1,442	1,629	1,748	2,034	2,731	2,596
2.1 Defence	59	61	64	67	76	83	92	176	203	145
2.2 General Administration	196	200	213	234	265	277	338	351	574	485
2.3 Debt Servicing	114	106	123	143	167	206	253	337	516	514
2.4 Other	602	536	547	492	934	1,063	1,065	1,170	1,438	1,452
3. Development expenditure	1,280	1,345	1,452	1,626	1,705	1,951	2,167	1,942	2,670	2,442
3.1 Agriculture and allied subjects	222	227	280	300	320	347	355	367	485	486
3.2 Manufacture and Mining	94	119	100	156	153	206	202	146	121	134
3.3 Transport and communication	318	330	357	374	403	419	459	432	617	565
3.4 Education	358	370	363	382	430	442	513	527	711	602
3.5 Health	159	163	171	187	203	248	274	266	350	298
3.6 Other	129	136	181	227	196	289	364	204	386	357
4. Total expenditure (2) + (3)	2,251	2,248	2,399	2,562	3,147	3,580	3,915	3,976	5,401	5,038

(a) For a period of 15 months.

Source: The Colombo Plan Annual Reports

sharp increase in overall government expenditure. In the year 1966/67 government expenditure totalled Rs. 2,562 million, whereas in 1973 it had doubled reaching Rs. 5,038 million.

In the period from 1966/67 there were sharp increases in all items of expenditure. For the three year period from 1967/68 to 1969/70, government expenditure averaged Rs. 3,547 million, representing an increase of Rs. 1144 million above the average for the previous three years, while in the following three year period ending in 1973 the average level of expenditure rose to Rs. 4,805 million, registering a rise of Rs. 1,258 million.

Table 3 shows how evenly the large increases in government expenditure have been distributed between the two constituents ie. development and non-development expenditure. The tendency for government to spend more for non-development purposes at the expense of development has become more marked in recent years. In the four year period from 1964/65 to 1967/68 the non-development expenditure increased by Rs. 539 million, while development expenditure rose only by Rs. 360 million. This sharp growth in non-development expenditure is also evident in the period 1968/69 to 1971/72. In this four year period development expenditure has increased only by Rs. 719 million while non-development expenditure increased by Rs. 1,102 million.

Expansion of non-development expenditure at the expense of development expenditure has been a feature of the expenditure pattern of government since the beginning of the decade under review.

It reflects on the urgent need to mobilise capital resources by reducing non-development expenditures. However, it has not been possible for government to keep expenditure of this type in check so that an increasing share of resources appropriated by the government could be diverted to capital formation.

It is evident from the pattern of expenditure that government savings have shrunk because of the mounting scale of welfare expenditure. In order to assess the financial burden of the welfare expenditure in relation to the government sector savings, it is necessary to compare them with the total current expenditure of the government. Table 4 makes this comparison. The percentage of expenditure on welfare services to total government current expanditure has remained around

Table 4
Expenditure on Welfare Services

Rs. Million

	1963/64	64/65	65/66	66/67	67/68	68/69	69/70	70/71	71/72(a)	1973
1. Expenditure on Welfare Services	826	736	756	702	858	926	1,016	1,246	1,565	1,396
2. Total Current Expenditure	1,738	1,896	2,020	2,129	2,363	2,668	3,032	3,174	4,263	3,877
3. (1) as a percentage of (2)	48	39	38	33	36	35	34	39	37	36

(a) For a period of 15 months.

Source: Central Bank of Ceylon.

36 per cent throughout the decade. The high level of welfare expenditure was due to higher food subsidies and increased expenditure on other welfare activities comprising education and health.

1·2   Government Revenue.

The growth of revenue is illustrated in Table 5. In the year 1963/64 government revenue totalled Rs. 1,759 million. During the three year period from 1964/65 revenue averaged Rs. 1,868 million, an increase of approximately Rs. 110 million. There was a very sharp increase in revenue in the next three years. During the period from 1967/68 to 1969/70, revenue amounted to an average of Rs. 2,736 million depicting an increase of Rs. 868 million. In the subsequent three years to 1973 there was a substantial rise in revenue. In this period government revenue averaged Rs. 3,682 million, representing an increase of Rs. 946 million. The increase in government revenue has come mainly from two sources, revenue collected on the import of goods and services and excise duties together with turnover tax revenue.   ·

Government collects revenue from taxes and from sale of commodities and services. Hence, government revenue consists of tax revenue and non-tax revenue. This classification of receipts into the components of tax revenue and non-tax revenue is also shown in Table 5.

Tax revenue which averaged Rs. 1,497 million in the three years from 1964/65 to 1966/67 rose to an average of Rs. 1,763 million in the subsequent three years, showing an increase of Rs. 266 million. During the three year period from 1970/71 to 1973 there was however a noteworthy expansion of tax revenue, when it averaged Rs. 2,488 million. The marked expansion of tax revenue from the financial year 1970/71 is attributable to a substantial increase in the level of taxation.

On the other hand non-tax revenue which averaged Rs. 371 million in the three years to 1966/67 rose to an average of Rs 973 million in the subsequent three years showing an increase of Rs. 602 million. This increase has continued in the three year period from 1970/71 to 1973 when it averaged Rs. 1,194 million, representing an increase of Rs. 221 million. Hence it is significant that the non tax revenue has increased relatively less than tax revenue throughout this period.

Table 5

Government Revenue

Rs Million

	1963/64	64/65	65/66	66/67	67/68	68/69	69/70	70/71	71/72(a)	1973(b)
1. Tax Revenue	1,406	1,480	1,452	1,559	1,660	1,755	1,876	1,952	2,760	2,752
2. Non-Tax Revenue	353	337	381	396	777	1,036	1,105	941	1,342	1,301
3. Total Revenue	1,759	1,817	1,833	1,955	2,437	2,791	2,981	2,893	4,102	4,053
4. Gross National Income	7,048	7,242	7,313	7,543	8,117	8,487	8,771	8,770	9,060	9,212
5. (1) as a percentage of (4)	19.94	20.43	19.85	20.66	20.45	20.67	21.38	22.25	30.46	29.87

Sources: Central Bank of Ceylon and
Colombo Plan Annual Reports

(a) These figures are indicated on a pro-rata basis for 12 months.
(b) Provisional.

Table 6

Classification of Tax Revenue

Rs. Million

	1963/64		64/65		65/66		66/67		67/68		68/69		69/70		70/71		71/72		1973	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
1. Direct Taxes	365	26	386	26	363	25	389	25	382	23	369	21	525	23	488	25	656	23	430	16
1.1. Taxes from personal and corporate income	309	22	326	22	319	22	343	22	332	20	316	18	479	21	409	21	573	20	348	13
1.2. Capital Taxes	28	2	30	2	30	2	30	2	33	2	35	2	23	1	39	2	29	1	27	1
1.3. Property and Assets Transfer Tax	28	2	30	2	14	1	16	1	17	1	18	1	23	1	40	2	54	2	55	2
2. Indirect Taxes	1,041	74	1,094	74	1,089	75	1,170	75	1,278	77	1,386	79	1,351	77	1,464	75	2,154	77	2,322	84
2.1. Turnover Taxes	16	1	44	3	44	3	78	5	83	5	105	6	207	12	292	15	469	17	375	14
2.2. Selective Sales Taxes	128	9	150	10	159	11	171	11	199	12	228	13	193	11	240	12	388	14	348	13
2.3. Export Levies	309	22	338	23	290	20	263	17	332	20	316	18	302	17	280	14	334	12	293	11
2.4. Import Levies	528	38	469	32	538	37	612	39	564	33	439	25	246	14	260	13	303	11	275	10
2.5. Receipts from sale of FEECs	—	—	—	—	—	—	—	—	83	5	262	15	368	21	352	19	601	21	949	33
2.6. Taxes of foreign exchange	4	0·3	5	0·4	0·1	·007	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2.7. Licence Taxes	56	4	88	6	58	4	46	3	17	2	36	2	35	2	40	2	59	2	82	3
Total Tax Receipts	1,406	100	1,480	100	1,452	100	1,559	100	1,660	100	1,755	100	1,876	100	1,952	100	2,810	100	2,752	100

Source: Central Bank of Ceylon

Classification of the tax revenue is given in Table 6 for the period under review. In the year 1963/64 direct taxes amounted to 26 per cent of total tax revenue. By 1967/68 the proportion had decreased to 23 per cent and again it rose in 1970/71 to 25 per cent. Thereafter, the share of direct taxes dropped to 23 per cent in 1971/72 and to a low of 16 per cent in 1973, despite sharp increases in tax rates.

An important point about the sources of revenue is the increasing dependence on indirect taxation. It constituted 74 per cent of total revenue in the financial year 1963/64. Since then, the share of indirect taxes has continuously risen to 77 per cent in 1971/72 and it has contributed as much as 84 per cent to total revenue in 1973. Table 6 shows that receipts from sale of FEECs and busines turnover tax has been steadily rising over the years. In 1973 these two sources accounted for nearly 50 per cent of the total government tax revenue.

The increase in receipts from the turnover tax has been due to an upward revision of rates, an extension of coverage and an increase in the level of domestic activity in recent years. Receipts from import and export levies have continued to drop steadily from Rs. 837 million in 1963/64 to an estimated Rs. 568 million in 1973.

1·3 Savings of Local Government Authorities

Local government institutions receive grants from the government to meet their expenditure. Table 7 indicates the amounts so received and demand, time and savings deposits owned by local authorities up to the financial year 1973.

In view of the inadequate state of basic statistical information regarding the savings of the local government authorities, it is difficult to estimate its small contribution towards the government's effort of mobilising domestic resources.

Table 7

Ownership of Demand, Time and Savings Deposits of Local Government Authorities with Commercial Banks and Grants Received from the Government *

Rs. Million

Item	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973
1. Total of Demand, Time and Savings Deposits owned by Local Government Authorities	54·2	42·7	39·1	44·8	34·3	29·2	29·3	43·4	53·4	73·4
2. Total grants received from the Government	41·4	40·4	44·3	44·3	52·5	61·9	58·9	60·2	76·2	65·3

Source: Central Bank of Ceylon

* Figures under Item 1 are on a calender year basis, and those under item 2 are on a financial year basis.

2. The Household Sector

Savings of the household sector includes savings of individuals families, partnerships and non - profit institutions, such as religious orders, non-profit educational institutions and charitable institutions. In other words it includes all economic entities not included under the government or business sector.

Savings by households depend on a variety of factors some of which can be influenced by government policies. Among the factors that may be thus influenced is the rate of growth of disposable income[1]. Savings by households also depend on the age distribution of population. Higher the dependency ratio[2] lower will be the savings by households.

The household sector maintains deposits with the commercial banking system in the form of either demand, savings or fixed deposits. Data on demand, time and savings deposits of the household sector with commercial banks for the years 1964 to 1973, are shown in Table 8. In addition to deposits with commercial banks, house-

---

1. Income after payment of personal taxes.
2. The ratio of children, invalids and retired persons to the labour force.

Table 8

Demand, Time and Savings Deposits of the Private Sector with Commercial Banks
(as at end of period)

Rs Million

	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973
1. Household Sector	747	775	768	847	919	981	1,212	1,270	1,317	1,501
1.1 Individuals	685	710	704	777	843	899	1,111	1,164	1,207	1,397
1.2 Non Business Institutions	62	65	64	70	76	82	101	106	110	104
2. Business Sector	498	516	512	565	613	654	808	846	878	944
2.1 Financial Institutions	99	103	102	113	123	131	162	169	176	188
2.2 Plantations	37	39	39	43	46	49	60	64	66	80
2.3 Trading Establishments	137	142	140	155	168	180	222	232	241	264
2.4 Manufacturing	100	103	103	113	123	130	162	169	175	211
2.5 Other Business Institutions	125	129	128	141	153	164	202	212	220	201
Total	1,245	1,291	1,280	1,412	1,532	1,635	2,020	2,116	2,195	2,445

Source: Central Bank of Ceylon

holds also maintained savings deposits with the Ceylon Savings Bank, Post Office Savings Bank and the Savings Certificates Fund, prior to 1st April 1972. The National Savings Bank took over the assets and liabilities of the Post Office Savings Bank, the Ceylon Savings Bank and the Savings Certificates Fund with effect from 1st April 1972.

As Table 8 indicates, demand, time and savings deposits held by the household sector in commercial banks have shown a considerable increase during the period under review. Throughout the decade the amount in savings accounts of the household sector with commercial banks rose from Rs. 374 million to Rs. 700 million. The average deposit per account in 1973 was Rs. 833/-. There has been a rapid rise in time deposits of the household sector. In 1973 the total time deposits held by commercial banks increased upto Rs. 187 million.

National Savings Bank has become a popular medium of savings in recent years. There has been a considerable increase in the number of accounts as well as in the size of the average account. Higher interest rates on deposits compared with rates offered by competing institutions along with special income tax concessions[1] have helped the bank to expand its deposits. The number of accounts increased from 5 million at the end of 1972 to 5·3 million at the end of 1973. In the same period the outstanding deposits rose from Rs. 938 million to Rs. 1067 million. The expansion of the commercial branch network has undoubtedly assisted in the mobilisation of more household deposits with banks. In 1964 there were 88 bank branches in Sri Lanka. The number of branches increased to 303* at the end of 1973. The establishment of the National Savings Bank and the increased activity in branch banking have also made an important contribution towards mobilisation of houshold savings.

Life insurance premia, pension and provident fund contributions and compulsory savings are the major contractual forms of outlets for houshold savings in Sri Lanka. Normally households insure against death or provide against old age by paying premiums to life insurance

---

1. Currently available income tax concessions on deposits with the National Savings Bank are in the form of exemptions from income tax on interest earned upto Rs. 1000 per person per annum upto a maximum of Rs. 6000 per family per annum.

* Excluding kachcheri branches opened in 1971 and 1972.

Table 9

Household Contractual Savings in the Form of Life Insurance

	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973
1. No. of Life Policies in force ..	69,902	85,110	98,246	106,850	121,828	149,603	151,015	158,700	163,800	169,063
2. Premium income (Rs. '000) ..	15,000	21,000	26,500	27,600	36,800	43,296	51,355	60,340	61,610	70,940
3. Total value of claims (Rs.'000)	500	900	800	1,600	1,700	2,530	n.a.	5,000	7,700	6,400
4. Savings in the form of Life Insurance (Rs. '000) ..	14,500	20,100	25,700	26,000	35,100	40,766	51,355	55,340	53,910	64,540

Sources: Central Bank of Ceylon Insurance Corporation of Sri Lanka.

schemes.   The total premiums paid within a year, less repayments in respect of claims, represents household savings. Savings from this source have increased from Rs. 15 million in 1964 to Rs. 65 million in 1973.

Household savings represented by life insurance premia is shown in Table 9.

The savings of the household sector in the form of pension and provident funds[1] also increased from Rs. 119 million in 1966 to Rs. 231 million in 1973.

The amount collected from the private sector, under the Compulsory Savings Act No. 6 of 1971 and Ceiling on Income and Compulsory Savings Law No. 15 of 1972 was Rs. 53 million and Rs. 33 million respectively. The total collected as compulsory savings represents the amount contributed by the business sector too.   As no detailed information on its composition is available it is not possible to estimate the amont pertaining to the household sector.

2·1   Physical Assets

Household savings consist not only of increases in financial assets but of increases in physical assets as well.   The latter includes such items as residential dwellings, consumer durables and increases in the stock of physical assets, such as agricultural machinery, land improvement etc.   In the absence of direct statistical information on the physical assets of household sector, it is worthwhile to at least attempt to make an indirect estimation. Saving in the form of physical assets of the household sector may be estimated as a residue of the total gross domestic capital formation less gross domestic capital formation in the government and the corporate sectors as shown in Table 10.

Table 10
Gross Capital Formation of Sectors

Rs. Million

	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973
1. Total	1,113	1,013	1,195	1,377	1,699	2,253	2,555	2,249	2,118	2,630
2. Government and Public Enterprises	487	55	574	633	809	839	1,236	955	661	981
3. Household Sector (1-2)	626	460	621	744	890	1,414	1,319	1,294	1,457	1,649

Source: Central Bank of Ceylon.

1.   Amount subscribed to Rupee securities by Employees' Provident Fund and private, provident and pension funds are considered here as savings of the household sector.

Table 10 reveals that the rate of increase in capital formation in the household sector has exceeded the total capital formation growth rate over the period 1964-73. This indicates that the household sector has accumulated physical assets at a faster rate (163 per cent) compared to the total capital accumulation of the economy (which has grown by 136 per cent) during this period.

While the estimates in Table 10 do not reflect the relative importance of different components of the capital formation of the household sector, it should be mentioned that the Survey on Private Investment carried out by the Central Bank of Ceylon in 1966/67 found that,

> "investment in housing for residential purposes has been the largest single type of capital expenditure in the private sector; it forms a sizeable proportion of gross capital formation."[1]

3. The Business Sector

Savings of this sector consists of savings by financial and non-financial corporations, plantations, trading and manufacturing establishments (including non-resident companies) and other business organisations that are not considered under the household sector. Business sector savings are measured by the amount of earnings retained in the respective establishments at the end of their fiscal year.

Estimates of savings in the business sector with the commercial banks are presented in Table 8. During the decade the value of demand, savings and time deposits of the business sector increased from Rs. 498 million to Rs. 944 million. About two thirds of business sector savings are accounted for by finance, trade and manfacturing organisations.

Conclusions

There has been a general rising trend of savings in the economy. The largest single contributor to domestic savings has been the household sector. Over the decade households have consistently accounted for at least one half of total domestic savings. Government

---

1. Survey of Private Investment – Economic Research Department, Central Bank of Ceylon 1970 p. 49.

current revenue has risen quite substantially since 1964/65 but the rise in government non-development expenditure has reduced the value of this achievement.   Government revenue has just managed to finance government current expenditure.   Thus the government sector has not been able to contribute a considerable portion to finance the rising level of government capital expenditure.   Greater attention should be given to the problem of restraining the growth of current expenditure.

There has been a steady rise in the income received by the rural sector since 1970.   To tap this potential source of finance, the government should give greater attention to the expansion of suitable financial medias such as provident fund and life insurance.   Throughout the decade, household savings have taken place predominently in the form of physical assets.   This reflects the slow growth of the banking system.   It is likely that the increasing trend towards physical assets will continue.   Both the government and the business sectors tend to depend largely upon household savings and their growth for their development programmes.

REFERENCES

1. Ojha, P. D.   Mobilisation of Savings
                      Economic Political Weekly-January 1969.

2. Nwan Kwo, G. O.   How Developing Countries can Mobilize
                       Local Savings-The Bankers Vol. 123
                       June 1973.

3. Gupta, K. L.   Household Savings in Financial Assets.
                       The Indian Economic Journal – Vol. xvii
                       April – June 1970.

4. U. Tun Wai.   Financial Intermediaries and National
                       Savings in Developing Countries.

5. Bhatt, V. V.   Savings and Capital Formation.

6.   Survey of Private Investment – Department
                       of Economic Research, Central Bank of
                       Ceylon – 1970.

7.   The Colombo Plan Annual Reports
                       1971, 1972, 1973 and 1974.

8. Lewis, W. Arthur   Theory of Economic Growth.
                       (New York, Harper and Row 1970).

9. Chase, S. B.   Household Demand for Savings Deposits
                       1921-65 Journal of Finance Vol xxiv, No. 4
                       September 1969.

10. Griffin, Keith   Foreign Capital, Domestic Savings and
                       Economic Development.

11. Perera, L. N.   Sources and Methods used for estimation of
                       capital formation within the frame work
                       of National Accounts in Ceylon, National
                       Accounts in Developing countries of Asia.

12. Ivensen, T.   Problems in Forecasting the Monetary
                       Savings of the Population, Problems of
                       Economics – June 1974.

DISTRIBUTION OF INCOME IN SRI LANKA: ALTERNATIVE STATISTICAL MEASURES

SIRIMEVAN COLOMBAGE

It is customary to identify the time path of economic activity of a country by using an indicator such as the national income which reflects the overall trends of the economy. Eventually, economists have tended to use the notion of real national income per head so as to take into account the changes in population and the general price level. It is well known that a country's standard of living changes with variations in per capita real national income. However, it has become clear from the experience of both developed and developing countries that a higher rate of growth does not itself guarantee a higher level of living standard. For instance, if an economy grows at a higher rate with little or no benefits for the poor, it would be implausible to infer from such evidences that the standard of living in that economy improves faster than that in another economy which has a lower rate of growth and greater benefits for the poor. In these circumstances, it is essential to consider how the growing national income is distributed among individuals.

Thus the importance of the dynamic characteristic of income distribution in the process of socio-economic development has been widely accepted in recent years. In developing countries in particular, there has been increasing emphasis on the nature of the interaction between economic growth and the pattern of income distribution. Since the First Development Decade, an increasing interest in this field has been evoked by the problem of unequal distribution of income among different social classes in the Third World nations. The problem cannot be reduced to a simple task of determining the the best pattern of distribution of a given national income among individuals, as the form of distribution would affect the total amount to be shared. Presumably, a policy aimed at absolute equality might bring about a lower level of output. On the other hand,

maximisation of output would cause some degree of income inequality. These objectives must be compromised by formulating a policy mix designed to reach a goal somewhere between these two extremes.

Information on income distribution in Sri Lanka has mainly been collected through a series of Consumer Finance Surveys carried out by the Central Bank of Ceylon (1953, 1963, 1973). In the Consumer Finance Report of 1953, the Central Bank used the Lorenz curve to illustrate the pattern of income distribution. The mean and median were used to measure the central tendency of distributions, and the dispersion was estimated by using the Quartile Deviation method. In addition to the Lorenz curve, the Decile Grouping method was used in the report on the survey of 1963 to compare the income distribution of 1963 with that of 1953. Incorporating the Gini Concentration Ratio (Gini Coefficient) with these two measures, the report concludes, "····the overall income distribution (before taxes) of income receivers showed a smaller degree of inequality in 1963 than in 1953". (Central Bank of Ceylon, 1963, p. 66). The conclusions of the 1973 survey report were also primarily based on the Decile Grouping method, the Lorenz curve and the Gini Coefficient. On the basis of these measures, the report of 1973 asserts that the redistribution of income from the rich to the poor that took place between 1963 and 1973 was quite remarkable. It is interesting to note here that a two-parameter lognormal distribution was fitted to observations of income receivers' income in the 1973 survey report

Apart from the Central Bank surveys, the Socio-Economic Survey conducted by the Department of Census and Statistics (1971) also provides details of income distribution in Sri Lanka. The Lorenz curve, the Gini Concentration Ratio and the Decile Grouping method, were employed in this survey report.

The purpose of our study is to use some alternative statistical measures of inequality in addition to the indicators that are currently used to analyse the pattern of income distribution (in money terms) in Sri Lanka. In section two, we discuss the statistical and conceptual procedures adopted in the sample surveys which collected income distribution data. Section three considers salient trends in the size distribution of income. In section four, the pattern of income distribution is analysed by using Pareto's Law of inequality. Section five deals with the notion of "social income" which harmonizes distributional aspects with national income indicators.

2.   Sources of Data: Definition of Concepts

The main sources of information for this study are the three Consumer Finance Surveys of the Central Bank of Ceylon (1953, 1963 and 1973).   The comparability of the data on income distribution in different periods is vitally important when one attempts to rank them in order of inequality. The data collected through the Consumer Finance Surveys are comparable in many respects. "Income" has been defined identically in all these surveys.   Apart from 'money income', 'income in kind' was also taken into account in collecting the pre-tax income data.   Cash receipts and values of products such as cereal were counted as money income.   'Income in kind' included the imputed values of transfer payments and imputed values of own garden products consumed at home.   The surveys did not add the values of free government services to individual incomes since it is difficult to make any estimate of the distribution of these facilities among different income groups.   In the 1973 survey, the definition of income was slightly modified from the previous surveys enabling to include the value of a portion of rice ration which was freely available during the survey period.

The concepts of recipient unit and spending unit employed in the surveys were similar.   A person who had received an income during a given period immediately prior to the surveys was defined as an income receiver. A spending unit was defined as consisting of one or more persons who are members of a household and share a considerable proportion of the household expenditure.

Here the survey data are not strictly comparable due to the fact that the length of the reference periods of the data on income varies among the surveys.   Thus the 1953 survey collected the data on income for the month immediately before the survey and the average monthly income for the previous year.   Considering the importance of seasonal effects on income, the survey for 1963 covered the data on income for the preceding two months rather than one month.   As in the previous survey, the corresponding data for the preceding year were also collected in 1963.   Presumably, there is a relation between the length of reference period and the reliability of data collected through that particular survey: the greater the length of the reference period, the higher the degree of unreliability of data due to memory lapses of the respondents.   Therefore, in the 1973

survey, only the income of the preceding six months was taken into account instead of the whole year's income. Data for the preceding month were also collected in this survey.

The manner in which these surveys were conducted enabled seasonal effects on personal incomes to be taken into consideration. The surveys were timed to coincide with the major paddy harvest, viz. "Maha Crop." The surveys also covered incomes of a more stable nature.

The sample sizes of the surveys in 1963 and 1973 were approximately equal. The 1963 survey consisted of 7781 income receivers and 5399 spending units. In the survey for 1973, 7326 income receivers and 5363 spending units were interviewed. The 1953 survey contained a rather smaller sample of 1708 income receivers and 1085 spending units.

3. Trends in Size Distribution of Income

A widely used method for ranking frequency distribution of income is to divide the sample into deciles in order of the level of income accruing to each tenth of income receivers and spending units. This is a useful method to compare the changes in distribution that take place over time.

Table 1 shows the distribution of pre tax income of income receivers. It would appear that between 1953 and 1963 the incomes were redistributed from the lowest and highest deciles to the middle ranges. Between these two years, the relative share of the top 10 per cent fell from 43 per cent to 39 per cent and the share of the bottom 50 per cent decreased from 19 per cent to 18 per cent. On the other hand, the proportion of the middle 11 50 per cent of income receivers increased from 39 per cent to 43 per cent during the period from 1953 to 1963. These trends did not continue in the following period of 1963 1973. The changes in the pattern of distribution occured between 1963 and 1973 indicated an improvement in the degree of equality. During this period, income appears to have been redistributed from the richest 10 per cent to the bottom 80 per cent. The share of the 11-20 per cent declined slightly; the share of the top 10 per cent decreased from 39 to 30 per cent; the share of all other groups increased in 1973 from the 1963 level.

Table 1

Percentage Distribution of Income Before Tax

Income Group	By Income Receivers			By Spending Units		
	1953	1963	1973	1953	1963	1973
Top 10% ..	42·49	39·24	29·98	40·60	36·77	28·03
11–20% ..	14 16	16·01	15 91	13·20	15·54	14·92
21–50% ..	24·64	27·26	31·96	25·30	27·76	30·31
Bottom 50% ..	18·71	17·49	21·05	20·90	19·93	26·74

Source: Central Bank of Ceylon, (1953, 1963, 1973)
Reports of the Sample Surveys of Consumer
Finances.

Incomes of spending units have also experienced similar trends during the past two decades. The most striking feature of the changes between 1953 and 1963 (as shown in Table 1) is the deterioration of the relative share of the richest 10 per cent and the increase in that of the 11–50 per cent: the proportion of the top 10 per cent decreased from 41 per cent to 37 per cent while the shares of 11-50 per cent rose from 39 per cent to 43 per cent during this period. The shares of the spending units in the bottom 50 per cent groups remained stable around 20 per cent between 1953 and 1963. The size distribution of income by spending units for 1973 represents a different picture. In 1973, the shares of the bottom 80 per cent increased from the 1963 level at the expense of the top two deciles. The proportion of the top 10 per cent fell from 37 per cent to 28 per cent, while that of the second highest decile decreased from 16 per cent to 15 per cent between 1963 and 1973. In contrast, the share of the bottom 80 per cent increased from 48 per cent to 57 per cent.

4. Pareto's Measure of Inequality

In this section, we apply the Pareto coefficient[1] to measure the degree of inequality. Using the Ordinary Least Square method, we fit the Pareto model of income distribution to the upper part of distributions for the three survey years; 1953, 1963 and 1973. The data used in these computations are presented in Appendix Tables 6, 7 and 8.

Table 2 presents our estimates of the Pareto measure. The Pareto coefficient markedly increased from 1·55 in 1953 to 1·76 in 1963 and to 2·13 in 1973. As we discussed earlier, these results support the conclusions drawn from the results of the other positive measures, i.e. the Gini coefficient and the Lorenz curve. The continuous increase in the value of the Pareto coefficient between 1953 and 1973 implies that there has been an improvement in income equality. As shown in Table 2, the t values are significant at 5 per cent level in all the equations. The higher values of the t ratio imply a strong inverse relation between the cumulative frequency and the level of income. The coefficient of determination R^2 is remarkably high for all cases and therefore, we can assert that the explanatory power of the equations is satisfactory.

However, it should be noted here that Pareto's Law has some limitations as a measure of income inequality. Firstly, the Pareto coefficient as well as other positive measures (the Gini coefficient, the Lorenz curve and the standard deviation of logarithms) indicate the extent of inequality in a 'technical' sense and overlook some fundamental questions of income inequality. In these conventional

---

1. On the basis of cumulative frequency distributions of income in various countries, Pareto noticed that in most cases, personal income distribution may be generalised in a log linear form.

    $Y = b X^{-a}$

    or $\log Y = \log b - a \log X$

    Where X = income

    Y = number of persons with income above X

    a = the Pareto Coefficient.

    The greater the absolute value of the coefficient, the lower the degree of inequality.

measures, it is implicitly assumed that the level of social welfare is inversely related to the degree of inquality, and income distributions were compared merely by quantifying the degree of inequality.[1]

Table 2

Results of the Pareto Model

Year	Equations
1953	$\text{Log } Y = \text{Log } 5.46673 - 1.55366 \text{ Log } X$ (1)
	Standard error (0.31985) (0.11801)
	t Ratio (17.09180) (13.16560)
	$R^2 = 0.96654$
	$\bar{R}^2 = 0.96097$
1963	$\text{Log } Y = \text{Log } 7.47386 - 1.76042 \text{ Log } X$ (2)
	Standard error (0.15318) (0.05199)
	t Ratio (48.79120) (33.8586)
	$R^2 = 0.08879$
	$\bar{R}^2 = 0.98793$
1973	$\text{Log } Y = \text{Log } 8.85135 - 2.13226 \text{ Log } X$ (3)
	Standard error (0.33605) (0.11406)
	t Ratio (26.33970) (18.69350)
	$R^2 = 0.96413$
	$\bar{R}^2 = 0.96137$

A second limitation of the Pareto coefficient is that the linear form of the Pareto equation cannot be fitted to the lower end of income distribution since the actual observations at this end are frequently divergent from linearity. Thirdly, the problem of autocorrelation arises in estimating the parameters of the Pareto equations. Since the original data of the two variables Y and X were compiled on a cumulative basis, residuals tend to serially correlate.

---

1. There has been considerable interest in the 'normative' approach to the inequality problem in recent years. In contrast with the objectives of the 'positive' measures, the 'normative' approach is concerned with how different distributions should be ranked rather than what numerical values inequality indicators should be taken.

5.   A Measure of "Social Income"

It has been accepted that the question of income inequality is crucial in national income evaluations.   The notion of "social income"[1] introduced by Sen (1974) is useful to harmonize distributional aspects with national income indicators.

Using the concept of "social income", we calculated the parameter Z (= social income) for Sri Lanka for the two survey years 1963 and 1973.   Since the Gross National Product data for the period prior to 1959 are not comparable with the data available for the years after 1959, we do not estimate Z for the survey year 1953. Per Capita Gross National Product at 1959 factor costs was used as the variable Y.   By definition, Z is lower than Y as long as the Gini coefficient is greater than zero.   As shown in Table 3, it appears that the "social income" rose faster than GNP per capita during the period 1963-'73, thus implying a tendency towards more equality.

Table 3

The Social Income

(Rs.)

Year			Y	Z
1963	..	..	648	330
1973	..	..	784	463

The modified form of the Gini coefficient, Z can also be used to rank income distributions on a cross-section basis.   Table 4 presents the values for Y and Z, where Y = per capita real consumption at 1960 U. S. prices and Z = the "social income" based on it. Statistical information of Beckerman and Bacon (1970) and Paukert (1974) has been used in these calculations. It can be seen that although Sri Lanka is ranked in the sixth position using per capita real consumption, it represents the eighth position when countries are listed in terms of the "social income".

---

1. $Z = Y (1 - G)$
> Where Y = per capita income at constant prices,
> G = the Gini Coefficient,
> Z = the "social income".

Table 4

Estimates of "Social Income"

		Y (U.S. $)	Z (U.S. $)
1.	Nigeria	75	37
2.	Pakistan	80	50
3.	India	92	62
4.	Burma	95	62
5.	Iraq	135	54
6.	Sri Lanka	170	95
7.	Morocco	171	86
8.	Ecuador	189	117
9.	Brazil	190	87
10.	Philippines	192	100
11.	El Salvador	213	100
12.	Columbia	247	94
13.	Peru	251	98
14.	Costa Rica	327	164
15.	Panama	345	179
16.	Jamaica	394	173
17.	Greece	447	277

6. Concluding Remarks

During the period 1953-'63, money incomes were redistributed from the lowest and highest deciles to the middle ranges. The proportionate share of the lower deciles increased in 1973 from the 1963 level at the expense of the highest decile thus implying an improvement in equality.

With all its limitations, the estimates of the Pareto coefficient shows a marked tendency towards equality over the period 1953-'73. Thus, the conclusions drawn from the estimates of the Pareto coefficient are similar to those implied by the results of the other positive measures, viz. the Gini coefficient and the Lorenz curve.

The modified version of the Gini coefficient was used to estimate the "social income". Although the "social income" is numerically lower than the per capita Gross National Product, it has increased faster than the per capita GNP during 1963-'73 in Sri Lanka.

APPENDIX

Table 5

Percentage of Total Income Received by Each 10 Percent of Ranked Income Receivers and Spending Units

Decile	Of Income Receivers			Of Spending Units		
	1953	1963	1973	1953	1963	1973
Lowest	1.51	1.17	1.80	1.90	1.50	2.79
Second	3.56	2.70	3.17	3.30	3.95	4.38
Third	3.56	3.56	4.38	4.10	4.00	5.60
Fourth	4.37	4.57	5.70	5.20	5.21	6.52
Fifth	5.71	5.55	7.10	6.40	6.27	7.45
Sixth	6.31	6.82	8.75	6.90	7.54	8.75
Seventh	7.94	8.98	10.56	8 30	9.00	9.91
Eighth	10.39	11.46	12.65	10.10	11.22	11.65
Ninth	14.16	16.01	15.91	13.20	15.54	14.92
Highest	42.49	39.24	29.98	40 60	36.77	28.03

Source: Central Bank of Ceylon (1953, 1963, 1973)
Reports on the Sample Surveys of Consumer Finances.

Table 6

Income Distribution of Income Receivers – 1953

Income Group of Income Receiver (Income for one month) Rs.	No. of Income Receivers	Income as % of Total Income
0 – 25	165	1.39
25 – 50	454	9.46
50 – 75	360	12.04
75 – 100	221	10.27
100 – 125	165	10.08
125 – 150	86	6.36
150 – 175	58	5.05
175 – 200	47	4.73
200 – 250	57	6.74
250 – 300	20	2.97
300 – 350	23	4.05
350 – 400	16	3.28
400 – 450	4	0.93
450 – 500	7	1.76
500 – 600	2	0.65
600 – 700	6	2.03
700 – 800	5	2.02
800 – 1000	3	1.39
1000 – 1500	4	2.52
1500 – Over	5	12.28
Total	1708	100.00

Source: Central Bank of Ceylon (1953)
Survey of Consumer Finances.

Table 7

Income Distribution of Income Receivers – 1963

Income Group of Income Receiver (Income for 2 months) Rs.	No. of Income Receivers	2 Months		12 Months	
		Total Income Rs.	As % of Total Income	Total Income Rs.	As % of Total Income
0 — 25	266	3,429.77	0.16	58,981.40	0.50
26 — 50	475	18,622.77	0.90	151,677.80	1.29
51 — 75	568	36,562.12	1.76	278,506.40	2.37
76 — 100	808	71,061.18	3.42	477,110.30	4.05
101 — 125	772	87,517.07	4.21	552,142.80	4.69
126 — 150	683	94,400.77	4.54	553,881.30	4.72
151 — 175	526	85,764.24	4.12	519,941.60	4.42
176 — 200	506	95,599.25	4.60	533,571.80	4.54
201 — 250	662	149,551.62	7.19	815,583.83	6.93
251 — 300	525	144,914.29	6.97	784,457.30	6.67
301 — 350	407	132,819.97	6.38	739,214.90	6.28
351 — 400	349	132,134.67	6.35	715,581.60	6.08
401 — 450	208	89,328.30	4.29	504,585.30	4.29
451 — 500	183	85,989.66	4.13	474,941.90	4.04
501 — 600	237	130,234.89	6.26	676,620.08	5.75
601 — 700	171	111,263.70	5.35	593,737.40	5.05
701 — 800	99	75,362.19	3.62	393,900.90	3.35
801 — 900	77	65,891.69	3.17	348,926.10	2.97
901 — 1000	59	57,473.86	2.76	325,639.30	2.77
1001 — 1200	62	67,870.73	3.26	360,443.30	3.06
1201 — 1400	28	36,483.00	1.75	212,182.50	1.80
1401 — 1600	23	34,528.80	1.66	156,542.53	1.33
1601 — 1800	14	23,595.60	1.13	109,975.40	0.94
1801 — 2000	14	26,840.66	1.29	153,027.90	1.30
2001 — 2500	23	51,318.63	2.47	270,351.20	2.30
2501 — 3000	8	22,334.00	1.07	152,342.40	1.29
Over 3000	28	149,649.59	7.19	849,084.00	7.22
Total	7,781	2,080,543.02	100.00	11,764,951.24	100.00

Source: Central Bank of Ceylon (1963). Survey of Consumer Finances.

Table 8

Income Distribution of Income Receivers – 1973

Income Group (Income for 2 months) Rs.	No. of Income Receivers	2 Months		6 Months	
		Income (Rs.)	As % of Total Income	Income (Rs.)	As % of Total Income
0 – 25	33	536	0.02	4,797	0.05
26 – 50	98	3,982	0.12	10,961	0.12
51 – 75	132	8,516	0.26	24,043	0.26
76 – 100	273	24,460	0.73	70,133	0.75
101 – 125	300	34,607	1.04	99,947	1.07
126 – 150	397	55,721	1.67	154,318	1.65
151 – 175	336	54,953	1.65	148,892	1.59
176 – 200	355	66,996	2.01	183,899	1.97
201 – 250	544	124,156	3.72	343,037	3.67
251 – 300	608	168,966	5.07	479,504	5.13
301 – 350	484	157,250	4.72	435,508	4.66
351 – 400	517	194,778	5.84	540,605	5.78
401 – 450	487	207,593	6.23	579,313	6.20
451 – 500	402	191,866	5.76	543,865	5.82
501 – 600	689	376,856	11.31	1,065,546	11.39
601 – 700	481	311,911	9.36	874,452	9.35
701 – 800	357	266,781	8.00	763,687	8.17
801 – 900	223	188,995	5.67	531,352	5.68
901 – 1000	141	133,161	3.99	374,512	4.01
1001 – 1200	195	212,058	6.33	604,789	6.47
1201 – 1400	96	124,539	3.74	360,067	3.85
1401 – 1600	44	66,108	1.98	185,994	1.99
1601 – 1800	31	52,696	1.58	138,986	1.49
1801 – 2000	23	43,477	1.30	128,748	1.38
2001 – 2500	35	78,884	2.36	215,421	2.31
2501 – 3000	15	41,235	1.24	96,087	1.03
Over 3000	30	142,383	4.27	389,200	4.16
Total	7,326	3,333,465	100.00	9,347,663	100.0

Source: Central Bank of Ceylon (1973) Survey of Consumer Finances.

REFERENCES

Aigner, D. J. and Goldberger, A. S. *(1970)* *Estimation of Pareto's Law from Grouped Observations*, **Journal of the American Statistical Association,** Vol. 65.

Beckerman, W. and Bacon, R. *(1970)* *The International Distribution of Income*, **Unfashionable Economics, Essays in Honours of Lord Balogh,** Ed. P. Streeten, Weidenfeld and Nicholson, London.

Central Bank of Ceylon *(1953, 1963, 1973)* *Reports on the Sample Surveys of Consumer Finances*, Department of Economic Research Colombo.

Department of Census and Statistics *(1971)* *Report of the Socio-Economic Survey of Ceylon*, 1969/70, Colombo.

Karunatilake, H. N. S. *(1974)* *Changes in Income Distribution in Sri Lanka*, **Staff Studies,** Vol. 4

Paukert, F. *(1973)* *Income Distribution at different level of Development: A Survey of Evidence*, **International Labour Organisation Review**, Vol. 108

Rasaputram, W. *(1972)* *Changes in the Pattern of Income Inequality in Ceylon,* **Marga,** Vol. I

Sen, A. K. *(1974)* *National Income and Economic Performance*, University of Manchester, (Mimeographed)

ECONOMIC GROWTH, EMPLOYMENT AND INCOME DISTRIBUTION - LESSONS FROM SRI LANKA'S EXPERIENCE*

GAMINI ABEYSEKERA

Conceptual Framework

Economic growth, employment creation, and reductions of income inequality and poverty are undoubtedly the major policy concerns of many nations today. These aspects can be regarded as both ends and means, depending on the objective function of the society and the strategy-mix.it employs to achieve the objectives.

For instance, economic growth can facilitate higher income to people through the expansion of employment opportunities and/or by enabling a wide scale of transfers. Or, one can think of a more equitable distribution of income as a pre-requisite to widen the market (i.e. by enhancing the purchasing power of the poor), and to shift the demand structure of the economy towards more labour intensive products, which would in turn help to increase the rate of growth and the labour absorption capacity of the economy. Hence, economic growth, employment creation and income equality should be considered as both ends and means of a country's development effort.

Dudley Seers, in an essay entitled "The Meaning of Development"[1] comments that social problems and political upheavals, can emerge in countries at all stages of development, and casts doubt on the potential of mere economic growth to take care of such problems. "In fact," he states, "it looks as if economic growth may not merely fail to solve social and political difficulties certain types of growth can actually cause them[2].

---

1. Dudley Seers, "The Meaning of Development" **International Development Review**, Vol XI. No. 4, December 1969, pp. 2—6

2. **Ibid.**, p. 2

Thus, Seers focuses on a more "universally acceptable aim" of development—"the realization of the potential of human personality." In analyzing the necessary conditions to achieve such an aim Seers raises three questions; namely, (1) "What has been happening to poverty? (2) "What has been happening to unemployment"? (3) "What has been happening to inequality?" According to Seers, if all three of these have declined from higher levels, then beyond doubt this has been a period of development for the country concerned.[3]

Literature on development is being enriched by more of such encompassing and broader views. For example, recent writings of Dorner urge that the development policy analysis should be re–oriented to take care of employment and distributional implications.[4] Mahbub ul Haq has been another forceful speaker of this new view of development. He proposes to redefine the development goals "in terms of progressive reduction and eventual elimination of malnutrition, disease, illliteracy, squalor, unemployment and inequalities".[5]

This shift in the focus of students of development is also reflected in the shifting interest and approaches of the international development agencies. The President of the World Bank, for example, argues that, "increases in national income as essential as they are will not benefit the poor unless they reach the poor".[6] Similarly, the United Nations International Development Strategy for the Second Development Decade, intends "(i) to bring about a more equitable distribution of income and wealth for promoting both social justice and efficiency of production, and (ii) to raise substantially the level of employment."[7]

---

3. **Ibid.**, p. 3.

4. P. Dorner. **Land Reform and Economic Development**, Middlesex. England, Penguin Modern Texts, 1972, p. 15,

5. Mahbub ul Haq, "The Crisis in Development Strategies." Charles K. Wilber (ed.) **The Political Economy of Underdevelopment**, New York, Random House, 1973, pp. 369–70

6. Robert S. McNamara, "The Critical Relationship of Social Equity to Economic Growth", Address to the Board of Governors of the World Bank group, Washington D.C. September, 1972.

7. United Nations, Department of Economic and Social Affairs, **International Development Strategy**, United Nations. 1973, (para; 18, 7, 66).

Thus, it appears that both literature and action programmes on development are undergoing a 'cultural revolution' where the phenomenon of development is not confined to the increases in economic growth, but is redefined to include aspects such as expansion of employment opportunities and reduction of poverty and income inequalities.   This is indeed a 'great leap forward' in economic thinking !

The above discussion implies a need to question the validity of the basis on which countries are classified as developed and under developed.   In other words, per capita income may not be a true reflection of the level of development if we ignore aspects such as employment and income distribution.   However, traditionally economic growth has been treated as the basic objective of development assuming that growth always would ensure higher employment and lesser income disparities.

Economists have considered the growth process as a major influence on the distribution pattern of a country. Kuznets' seminal article on "Economic Growth and Income Inequality"[8] presented several propositions in this regard.   Kuznets concluded that due to the expansion of economic opportunities and other spread effects distribution becomes more equal within sectors and therefore overall inequality can decrease with higher mean incomes. This conceptualization of Kuznets led to the hypothesis that in general, less developed countries tend to have greater income disparties than advanced countries.   Following this hypothesis distributional equity has been treated as a function of a country's level of income and process of economic growth.

Studies done by T. Morgan and I. Kravis on the income distribution pattern of developed and less developed countries revealed evidence primarily to support the above stated hypothesis.[9] Most of the earlier studies on this subject however, were cross sectional analyses (where the experience of developed and less developed countries were compared) while Kuznets' original proposition referred

8. S. Kuznets, "Economic Growth and Income Inequality" **American Economic Review**, XLV, March, 1955 pp. 1-28

9. See Theodore Morgan, "Distribution of Income in Ceylon, Puerto Rico, the U.S.A. and the U.K." **Economic Journal**, December, 1953, pp. 821-835 and, I. Kravis, "International Differences in the Distribution of Income" **Review of Economics and Statistes**, November, 1960, pp. 408-416.

to the growth process of a given economy over a period of time. Recently, however, there have been attempts to examine the pattern of income distribution in terms of changes within countries rather than the differences among countries.[10] These studies have found mixed results, while in general, conforming to the traditional hypothesis.

The Case of Sri Lanka

In light of the foregoing discussion, Sri Lanka can be cited as an interesting and a relatively unique case. For an 'underdeveloped economy' it has a remarkably low income inequality and moreover, it has significantly reduced the level of income disparities over a period of twenty years. Yet, economic growth performance of Sri Lanka has not been very impressive and the unemployment problem of the country has not found satisfactory solutions.

A. Income Distribution

Despite its statistical and other inadequacies, the Gini Concentration Ratio has been the most widely used single-index of income inequality. A Ratio closer to I indicates higher inequality and

Table 1

Gini Concentration Ratios of Income Receivers and Spending Units 1953, 1963, 1973 – Sri Lanka.

Year	Income Receivers	Spending Units
1953	0.50	0.46
1963	0.49	0.45
1973	0.41	0.35

Source: Reports of Consumer Finance Surveys of Sri Lanka (Central Bank of Ceylon) 1953, 1963, and 1973.

10. See for example, Richard Weisskoff "Income Distribution and Economic Growth in Puerto Rico, Argentina, and Mexico," **Review of Income and Wealth**, Series 16, No. 4, December, 1970, pp 303–332 and Ojha P.D. and V.V. Bhatt. "Pattern of Income Distribution in an Underdeveloped Economy; A case study of India" **American Economic Review**, September, 1964, pp.711–720

a Ratio closer to 0   a lower   inequality.[11] Table 1 above gives the Gini Ratios computed on the basis of the income distribution data obtained from the Consumer Finances Surveys of Sri Lanka.

In terms of both recipient categories (i.e. individual income receivers and spending units), there has been a definite trend towards diminishing income inequality over the last two decades and this trend is more prominent since 1963. Comparing the two different recipient categories we find that the declining trend in income concentration is more so in the case of spending units. In percentage terms, while the Ratio of income receivers declined by only 18 per cent (from 0·50 in 1963 to 0·41 in 1973), there was a 24 per cent (from 0·46 in 1953 to 0·35 in 1973) reduction in the Ratio of spending units, over this twenty year period.

It can be observed from the behaviour of the Gini Concentration Ratios that Sri Lanka has been progressing towards a more egalitarian society. Yet, the Gini Ratio does not indicate "who has gained over whom and by what amount?" In other words, any increase or decrease in the poverty of low income groups may not necessarily be reflected in the Gini Ratio. Recalling our discussion at the outset where the objective of reduction of poverty was emphazised in addition to that of reduction of income inequality, it is important to examine Sri Lanka's experience in this respect too.

The goal of reducing poverty can be introduced as a derivative of the general concern for income equality (or vice-versa). In the absence of a well defined "poverty line" and also due to the problems involved in the construction of a "poverty line"[12] a simple and direct method is to treat the lowest 40 per cent of the income recipients as the poverty stricken group.[13] Though the choice of this percentage of income recipients may be arbitrary, it is a useful yardstick for inter-temporal comparison of relative burden of poverty.

---

11. See, M. Bronfennbrenner, **Income Distribution Theory**, Aldine Atherton Inc. 1971, pp. 43–50 for details of the Gini Ratio.

12. For a complete discussion of the concept of "poverty" and the problems and procedures of constructing a "poverty line" see, Robert J. Lampman **Ends and Means of Reducing Poverty**, Institute for Research on Poverty, Monograph Series, Markham Publishing Company, Chicago, 1968.

13. The approach of the World Bank has also been to identify the lowest 40 per cent as the poor. See Robert S. McNamar's Address to the Board of Governors of the World Bank, cited in footnote No. 6, and also, H. B. Chenery et.al, **Redistribution with Growth**, Oxford University Press, 1974.

TABLE 2

Comparison of Income shares by
Income Receivers and Spending Units, in terms of Top 20
per cent and Bottom 40 per cent, 1953, 1963, 1973, Sri Lanka.

	1953	1963	1973
(A) Income Receivers:			
Top 20 per cent	56·65	55·25	45·89
Bottom 40 per cent	13·00	12·00	15·05
Ratio of Top 20%: Bottom 40%	4·35	4·60	3·04
(B) Spending Units			
Top 20 per cent	53·80	52·31	42·95
Bottom 40 per cent	14·50	13·66	19·29
Ratio of Top 20%: Bottom 40%	3·71	3·82	2·22

In Table 2, the income shares of the lowest 40 per cent of the recipients are reported for the purpose of comparing these shares over time. Any increase of these shares represent an improvement of the relative income status of the poor. As further interpretation, the income share of the lowest 40 per cent may be compared with that of the top 20 per cent. A ratio can be computed using the two different shares, to arrive at an index of poverty reduction.

As shown in Table 2, during the period 1953-73 the overall trend has been towards the improvement of the status of the lower income groups. However, it is important to note that the actual improvement has taken place only after 1963, because during the period 1953-63 the share of the bottom 40 per cent has in fact, gone down. This is true in respect of both individual income receivers and spending units. Furthermore, as a result, the top 20 : bottom 40 per cent ratio has shown an increase in 1963 compared to 1953. It was only by 1973 that the share of the bottom 40 per cent improved and consequently the ratio of top 20 : bottom 40 per cent truly diminished.

Thus, the trends suggested by the figures given in Table 2 are somewhat different to those that we observed from Table 1 above. The Gini Ratios in Table 1 show a consistent and continuous trend of decreasing inequality. Yet the evidence of Table 2 is that poverty (defined as the income share of the bottom 40 per cent) did increase during the period 1953 - 63 despite a reduction in the overall degree of

income inequality. This experience of Sri Lanka suggests that reduction of income inequality may not necessarily assure reduction of poverty. Conversely, a society may find its, relative poverty increasing notwithstanding its progress towards income equality.

From 1963 to 1973 however, we find the trend suggested by the data in Table 2 is consistent with the movements of the Gini Ratio we noticed in Table 1, (i.e. both Tables indicating a narrowing down of income inequality and poverty. The important fact to remember here is that diminishing income disparities, is a necessary condition for reduction of poverty but is not a sufficient condition. Hence, a reduction of income inequality should not be misjudged as a reduction of relative poverty of a society.

However, in summary, we can conclude that Sri Lanka has been moving towards greater income equality over the last two decades (1953-73). This trend has been (particularly after 1963), accompanied by a reduction in relative poverty, as the lowest 40 per cent of income recipients gained while the top 20 per cent lost.

B. Economic Growth

We can now raise the question "are the income distribution trends in Sri Lanka consistent with the conventional hypothesis we cited at the outset of this discussion. ?" To be more specific, it is important to examine whether Sri Lanka achieved this success in reducing income inequality through rapid economic growth and its spread effects, or not.

Placing side by side, the economic growth performance and the income distribution achievements of the country during the last two decades, we find Sri Lanka doing a better job in the latter than in the former. It is common to express the economic growth of a country in terms of GNP (Gross National Product) or GDP (Gross Domestic Product) per capita, which presumably measures the expansion of physical production of goods and services above the increase in the population growth in a given period. We have reported such information in Table 3 below.

Table 3

Economic Growth Performance, 1959-1973, Sri Lanka

Year	GNP at 1959 Prices		Population		Per Capita Real GNP	
	Million Rs.	Annual Growth Rate	Million People	Annual Growth Rate	Rupees	Percent Change
1959	5893	—	9·62	—	612	—
1960	6289	6·7	9·89	2·8	635	3·9
1961	6425	2·2	10·17	2·7	632	−0·5
1962	6710	4·4	10·44	2·7	643	1·7
1963	6900	2·8	10·64	2·0	648	0·8
1964	7363	6·7	10·90	2·5	675	4·2
1965	7551	2·6	11·16	2·4	676	0·1
1966	7818	3·5	11·44	2·5	683	1·0
1967	8210	5·0	11·70	2·3	702	2·7
1968	8862	8·4	11·99	2·5	742	5·9
1969	9316	4·5	12·25	2·2	759	2·3
1970	9695	4·1	12·51	2·1	774	2·0
1971	9725	0·9	12·69	1·5	766	−0·6
1972	10030	2·5	13·02	2·0	770	0·5
1973	10383	3·5	13·24	1·8	784	1·7

Source: Annual Reports of the Central Bank of Ceylon

Table 3 indicates that during the period 1959-73, real GNP grew at an average rate of about 4·1 per cent, while the population increased on the average at about 2·3 per cent per year. Thus, the increase in per capita income in this period had been at an average of even less than 2 per cent per year. By looking at these relatively low growth rates one might wonder if low growth is conducive to more equitable income distribution. Or, one might suspect that there is a trade-off between higher growth rates and rapid reduction in income inequality.

However, it should be noted that mere association of two variables does not necessarily establish causation, and hence, low growth rates and reductions in inequality need not necessarily be related to each other as a cause or as a consequence. Yet, it is important to understand the implications of such uneven development where inequality diminishes despite low economic growth or, conversely where economic growth is relatively stagnant while income disparities are levelling off.

It has been a conventional argument that uneven distribution of income is conducive to growth. This argument is based on the assumption that the rich have higher savings propensities than the

poor, and that their savings lead to higher investment and rapid growth. Hence, the implication of equalizing the income distribution could be to reduce savings, which in turn cause lower investment and growth rates. This theory however, presumes that the rich tend to save proportionately more than the poor do. Also, it implies that all such savings would be channelled to productive investments causing rapid economic growth.

There is no need to emphasize that the above line of argument is highly debatable. In many less developed countries, the rich have high levels of luxury consumption and also high propensities to consume. Even if they do save more, it may be either deposited abroad or not invested in productive ventures. While we have no firm data to verify these conjectures in the case of Sri Lanka, it is useful to examine if the hypothesized links among income inequality-savings pattern-investment and economic growth are existing and if so, to what extent.

The counter-line of thought has been to conceive of severe income concentration as a barrier to growth. It tends to argue that a high degree of inequality in the purchasing power of consumers distorts the demand structure and reduces the size of the market. The proponents of this argument advocate better distribution of income to influence the composition of demand and widen the investment opportunities. Redistribution of income thereby could shift the demand structure from capital intensive goods to more labor intensive goods which cater to the needs of the masses. This is another area where research is needed to examine if this has been happening in the case of Sri Lanka.

While these questions deserve indepth studies, in the context of our discussion it is useful to at least make some speculatory comments. We wish to emphasize that in understanding the relationship between economic growth and income inequality the pattern of growth appear as important as the rate of growth. If we find a particular production sector which employs a major portion of the labour force growing at relatively a fast rate, this might account for diminishing income disparities, despite the generally low overall growth rate in the economy.

In Sri Lanka, the domestic agriculture sector appears to have performed in the above stated manner. Its rate of growth was about the same as that of the GDP during the early 1960's. It should be noted that over the period 1953-63 there has been only a marginal reduction in the country's income inequality. In the latter half of 1960's the domestic agriculture sector has been growing with a rate higher than the GDP growth rate, while there has been a marked reduction income inequality over the period 1963-73.[14] Thus, this pattern of growth might have had some influence on the income distribution pattern.

Since mid-sixties, as the foreign exchange crisis deepened, the range of import restrictions was extended to cover some of the food items too, such as onions, potatoes and chillies. This, coupled with other various input subsidies, price incentives and institutional measures emphasizing the 'food drive' must have created a strong stimulus to grow subsidiary food crops as well as rice. Hence, the higher prices together with higher output appeared to have contributed to higher incomes for those in the agricultural sector, and thereby to the improvement of the terms of trade between the rural and urban sectors. The resulting narrowing down of the rural – urban income differentials would have in turn, contributed to a lesser degree of overall income inequality.

The above hypothesis is based on the assumption that the domestic agriculture sector mainly consists of poor peasants and agricultural labourers who are in the lower income brackets, so that, an upgrading of their incomes leads to favourable distributional effects. Yet, it is uncertain as to which segments actually benefitted most from the higher prices of food and increased production in food crops. Bigger farmers, who have the capital, access to credit and otherd services, and who could afford to take risks, or the middlemen who control the food transport and distribution activities might have been the biggest beneficiaries. On the other hand, rice and other food crops in Sri Lanka, unlike wheat or corn in many other deve-

---

14. In constant terms, the GDP grew by 17.2 per cent over the period 1959 – 1963 while the domestic agriculture sector showed an increase of 30.3 per cent over the same period. During the period 1964 – 2973 the GDP rose by 40.9 per cent and the domestic agriculture sector grew by 51.2 per cent, in constant terms.

loping countries, are predominantly small holder crops; and it is likely that the gains in agriculture were better distributed here, than elsewhere.[15]

C. Unemployment

In relating economic growth to income inequality, employment creation has been often mentioned as a major source of income distribution. [16] The economic growth pattern of industrialized countries is said to have contained spread effects through which more people were brought into the production process, giving them access to income. Yet, in Sri Lanka we find a strange situation where income distribution trends have been progressive despite a worsening unemployment situation.

The pattern of population growth in Sri Lanka since the World War II after a time lag, resulted in an increasing labour force.[17] The growth rate in the labour force not only surpassed the population growth rate in the last two decades, but also reflected a built - in capacity to increase in the future because of the relatively young age structure of the country. The upshot of these trends was increasing unemployment, mainly in the case of youths and more so in the case of educated youths.

Table 4 reports the estimated number of unemployed and rates of unemployment in different periods. Due to differences in the defenitions and measurements adopted in various surveys these estimates may not be strictly comparable. However, it should be noted that while the Consumer Finance Survey of 1963 estimated the rate of unemployement at 13·8 per cent, a similar survey in 1973 arrived at 24·0 per cent as the proportion of total labour force unemployed. If this trend continues it is not unreasonable to suspect that the progressive trends in income distribution can even reverse in the course of time.

---

15. For example, under the provisions of the Land Reform Law of 1972, where the ceiling was 25 acres per individual (defined to include husband, wife, and children under 18 years) the total acerage expropriated was only about 18,000 out of a total of about 1·2 million acres of paddy land.

16. For example, Cline in his study of Latin America concludes that "the most efficient and effective (policy for income distribution is) the expansion of employment opportunities". See, W. R. Cline **Potential Effects of Income Distribution on Economic Growth**" New York, Prager, 1972.

17. See the articles by Dayapala Wijewardane and Nimal Sanderatne appearing in Vol. 5 No. 1 (April 1975) of Staff Studies for further discussion on Sri Lanka's demographic trends and their implications.

Table 4

Estimates of Unemployment in Sri Lanka

Source	Total Unemployment		Percent of Labour Force
1. I. L. O. Survey 1959 – 60	Low estimate	340,000	10·5
	High estimate	450,000	12·8
2. Population Census – 1963	Low estimate	265,000	8·0
	High estimate	390,000	10·8
3. Consumer Finance Survey 1963		457,000	13·8
4. Rural Employment Survey 1964		450,000	12·5
5. Labour Force Survey 1968		450,000	11·0
6. Central Bank Labour Force Partici- pation Rates Survey 1973		793,000	13·7
7. Consumer Finance Survey 1973		1,073,000	24·0

Trying to reconcile the unusual association of higher unemployment with lower income inequality, a purely statistical explanation can be put forward. When we talk of 'income receivers' and gather information on those income recipients (as the Consumer Finances Surveys of Sri Lanka did), we are essentially focusing exclusively on the 'employed' or 'income earning' segment of the economy[18]. So that the extent of unemployment will have little if any bearing on the income data unless high unemployment in the economy is reflected through lower wage rates (due to the surplus labour). Yet, in Sri Lanka, wages are mainly determined by institutional mechanisms (i. e. through intervention of unionism and state interference) rather than by supply and demand forces. Thus, there is no reason for the level of unemployment to have implications on the income distribution pattern, when we examine the distributional equity only in terms of 'employed' or 'income earning' groups of the society.

Income distribution data for Sri Lanka, however, are also gathered in terms of spending units. In Table 1, we observed that the reduction of income inequality has been even greater when data are analysed under the spending units than under the individual income receivers. Since spending units reflect the extent of income pooling and therefore the maintenance of dependants, unemployment can appear as a higher

---

18. Yet, since the concept of income includes in-kind income, and transfer income we may also find a small segment of 'unemployed' income receivers.

dependency ratio thereby requiring more income pooling.[19] To examine this we can look at the basic demographic information revealed by the three Consumer Finance Surveys of Sri Lanka. Table 5 summarises this information.

Table 5

Dependancy Burden on Income Receivers and Spending Units – 1953, 1963, 1973, Sri Lanka

	1953	1963	1973
A. Total Numbers			
1. Total No. of persons included	5,179	28,668	28,587
2. Total No. of Spending Units	1,085	5,399	5,363
3. Total No. of Income Receivers	1,708	7.781	7,326
4. Total No. of Dependants (1–3)	3,471	20,887	21,261
B. Averages			
5. Average No. of Income Receivers per Spending Unit (3÷2)	1·56	1·44	1·37
6. Average No. of Dependants per Spending Unit (4÷2)	3·20	3·87	3·96
7. Average No. of Dependants per Income Receiver (4÷3)	2·03	2·68	2·90
8. Average No. of Persons per Spending Unit (1÷2)	4·77	5·31	5·33

Source: Report of Consumer Finance surveys of Sri Lanka (Central Bank of Ceylon) 1953, 1963 and 1973.

We notice from Table 5 that the average number of dependants per spending unit and per income receiver has risen over time. Hence, the typical income receiver or the spending unit had to support a higher number dependants in 1973 compared to 1963 or 1953. This trend must have been due to two main factors. First, the country's age structure has led to a higher dependancy ratio as the death rate fell while birth rate remained relatively stable. Second, there have been fewer employment opportunities for those who entered the labour force to enable them to become income earners, so that they in effect became dependants.

While the average dependancy burden of the spending units increased (from 3·20 in 1953 to 3·96 by 1973), these units had consequently, to rely on fewer number of income receivers (the average

---

19. 'Dependants' in this context, include not merely those who are not in the working ages (i.e. children and aged) but also those who are unable to find work (i.e. unemployed).

of 1·56 in 1953 decreased to 1·37 by 1973) per unit. Thus, income pooling must have become a more essential arrangement than before. This income pooling nature of the society obscures the extent of unemployment in the economy when income distribution data are collected on a spending units basis.

For the society as a whole, high dependancy burden means more resources and efforts have to be diverted to the maintenance of a large segment of population which is economically unproductive, rather than to promote industrial or developmental activities. In other words, this means more current consumption, less savings and therefore little investments, implying limited employment opportunities. It has been estimated by the United Nations that to provide the 'social-capital' necessary for a one per cent increase in the population, between 2 to 5 per cent of the national income must be saved.[20] Thus, a country like Sri Lanka with about a 2 per cent growth rate of population would have to set apart between 4 to 10 per cent of its national income just to finance the 'demographic investments' with no rise in its standard of living.[21]

It has been sometimes argued, that the social and political committment for welfare services or social overheads in Sri Lanka has resulted in taking a lion's share of government expenditure away from economic development projects. While it is true that social expenditure contributes to improve the quality of human resources, from an employment point of view it can be self-defeating unless accompanied by investments in economic projects as well.

Concluding Remarks

The foregoing discussion on Sri Lanka's income distribution, economic growth and unemployment attempted to highlight several issues. Contrary to what is conventionally expected, the income distribution pattern of an underdeveloped economy needs not necessarily exhibit a high level of inequality as proved by Sri Lanka's

---

20· See, United Nations, **The Determinants and Consequences of Population Trends**, New York, U.N. 1953, p.—47

21· The role of social welfare expenditure programmes of Sri Lanka is discussed in a previous issue of Staff Studies. See H.N.S. Karunatilake, "The Impact of Welfare Services in Sri Lanka on the Economy" **Staff Studies**, Central Bank of Ceylon, Vol. 5, No. 1, April, 1975.

experience. Furthermore, inconsistent with the traditional explanations we found that the distribution of income can improve towards more equality despite low economic growth and high unemployment rates.

Although it was beyond the scope of this study, it should be mentioned that public policy in Sri Lanka including the social welfare programmes and wage policies should have contributed to the egalitarian trends in the last two decades. With the implementation of Land Reform Laws and expansion of public sector economic activities this trend should continue in future.

Yet, there is an important difference between consumption oriented redistributive policies and production oriented ones. This difference is that, while the former stresses mere subsidization of the consumption activities the latter involves a more comprehensive strategy to ensure a desirable income distribution through the production process itself. A consumption oriented redistribution through transfer payments mainly forms a 'secondary flow' of income while the production oriented distribution facilitates a better flow of 'primary income to the factors of production.'.[22]

In the absence of desirable changes in the production processes and organizational structures, emphasis on mere consumption oriented redistributive policies may encounter serious budgetary and resource allocation problems. As a result, such emphasis can aggravate the inflationary tendencies and unemployment difficulties in an economy. Hence, sufficient attention must be given to the task of re-structuring the economy particularly, in view of the Land Reform programmes that are being implemented. Properly designed and effectively carried out production oriented structural changes are vital for employment expansion which would in turn facilitate higher incomes to labour.

Consumption oriented redistributive policies can reflect in balance of payments difficulties also. The demand composition effects of income redistribution could be such that the lower income groups which are now lifted to higher income levels would demand for more food, textiles and other consumer durables. In an economy

22. J W. Kendrick, **Economic Accounts and Their Uses**, McGrew Hill, 1973 chapter 7, carries a discussion on the primary and secondary flows of income.

with a high marginal propensity to import, unless import substitutions takes place and the capacity to import increases with higher export earnings, income redistribution effects can influence the balance of payments deficits and / or the inflationary tendencies which would in turn, arrest the rate of growth of the economy.

It should be emphasized that we are not subscribing to the 'trade-off doctrine' which assumes an inevitable trade-off between economic growth and income equality. Instead, we are stressing the importance of integrating the redistributive mechanisms with the production processes, so that the growth will occur with favourable 'spread effects'. Redistribution, unaccompanied by increases in production, productivity and employment will be equally self-defeating as higher growth rates unaccompanied by equitable income distribution and more employment. What must be stressed is that these concepts should not be treated as ends or means by themselves; they are both ends and means of each other.

INTEREST RATES IN SRI LANKA

W. HETTIARACHCHI

It is generally recognised that both the level and the structure of interest rates exercise a permeating influence on the flow of funds within an economic system and therefore on the course of economic activity. For instance, when the level of interest rates is too low the ability of the financial institutions to mobilize savings is constrained and a large share of savings tends to remain outside the organised financial system. Similarly, low interest rates would not only encourage diversion of funds to less efficient economic ventures but also tend to maintain the overall demand for credit at a level which would necessitate rationing in the face of a limited supply. On the other hand, a level of interest rates which is abnormally high would discourage investment and also complicate government's borrowing operations. Similarly, if the interest rates paid by savings institutions are significantly higher than those paid by commercial banks, the ability of commercial banks to mobilize deposits would be undermined, thereby creating liquidity problems for the latter. If the rate on government securities is too low in relation to the other rates in the organized financial system, the public would be discouraged from investing in government paper. Again, if Bank rate is significantly lower than the rate on deposits, the commercial banks would be inclined to depend on Central Bank accommodation rather than on deposit mobilization for their credit expansion. These (and other) considerations would dictate that the maintenance of both the level as well as the structure of interest rates at an appropriate level is a sine-quo-none of an objective interest rate policy.

The objective of this paper is to trace the level and the structure of interest rates in Sri Lanka, examine its appropriateness and discuss the problems involved in the pursuit of an objective interest rate policy. The study starts with a discussion of the role of interest rates as an instrument of monetary policy in Sri Lanka's context. This will be followed by a brief recapitulation of historical trends and the current structure of interest rates in Sri Lanka. In the section that follows the appropriateness of the present level of interest rates is examined and the case for a high interest rate policy is outlined. The problems involved in pursuing an objective interest rate policy is discussed in the penultimate section. The paper concludes with a brief summary of the main arguments of the study.

Interest Rates as an Instrument of Monetary Policy

The use of the interest rate as an instrument of monetary policy has to be considered in the light of objectives to be achieved by a given change in interest rates or in the rate structure. These objectives could be : (a) stimulation of savings and diversion of hoarded currency into institutional sources, (b) maximisation of efficiency in resource allocation, (c) facilitation of government borrowing operations whilst maintaining the interest costs on the public debt within manageable limits and (d) the removal of any misalignment in the rate structure which causes distortions in the flow of funds among credit institutions. A change in interest rates by itself may not be adequate to achieve these objectives. Also, in view of the multiple role of interest rates, a change in one direction may conflict with the achievement of some objectives while achieving others. This meant that an appropriate overall interest rate policy will have to be based on a delicate balancing of rates realistic enough to stimulate savings and divert available savings into institutional sources but not so high as to inhabit investment in desired areas and escalate the service payments on the public debt. Therefore the appropriateness of a particular rate structure must be viewed strictly in relation to policy objectives-great weightage being given to those that demand highest priority.

In the use of the interest rate weapon the Central Bank of Ceylon has direct control only over Bank rate. The Monetary Law Act does permit the Central Bank to fix maximum rates for commercial bank advances and deposits, but the maximum rate is merely a theoretical limit and is meant for controlling commercial banks so as to prevent unfair competition for deposits. It is therefore not possible for the Central Bank to administer directly the rates charged by the commercial banks either on deposits or on their loans and advances; these rates could, of course, be influenced indirectly by a change in Bank rate.

Traditionally, Bank rate is regarded as an important weapon in the armoury of a Central Bank, which it can use for controlling credit and for setting the level of interest rates in the economy. In general, adjustments in Bank rate gets percolated into the other rates in the organized financing system. For instance, an increase in Bank rate with its consequential changes in the interest payable on deposits should help the commercial banks to step up mobilization of deposits,

whilst at the same time forcing them to raise their lending rates so as to maintain their profit margins. Similarly, if the commercial banks are short of liquid reserves and they have to seek accommodation from the Central Bank regularly, an increase in Bank rate would tend to push up the banks' own lending rates because the cost of borrowing at the Central Bank has gone up. The increase in the Treasury bill rate would tend to have a similar effect. Once the Treasury bill rate moves up above the commercial banks' rates on fixed deposits, investors would tend to shift their fixed deposits into Treasury bills, and the loss of deposits would tend to induce the banks to push up their own rates on fixed deposits. The upward movement of deposit rates would in turn tend to increase the commercial bank rates on loans and advances. Therefore, the maintenance of these two critical rates at appropriate levels is a matter of utmost importance in the pursuit of an objective interst rate policy.

Historical Trends of Interest Rates in Sri Lanka

For long years Sri Lanka has been pursuing a low interest rate policy. The main reason for this would have been the desire to encourage investment for economic development. In other words, a regime of low interest rates was thought to be a factor stimulating capital investment. Another important consideration would have been the rising costs of domestic public debt which had been growing over the years. Furthermore, it was believed that low interest rates would not interfere with the volume of savings because in the first place the rate of saving was considered to be insensitive to the rate of interest and secondly, even if this was not the case, the low level of income was thought to be not conducive of generating additional savings.

The period of 1950-59 marked an era of low interest rates in Sri Lanka. (See Appendix Table 1). In 1959, the Treasury bill rate was 2·02 per cent and Bank rate was 2½ per cent. The rate on savings deposits of commercial banks was 2 per cent, while the rate on their fixed deposits ranged between 1¼ per cent and 2½ per cent. The advances rates of commercial banks varied between 3 per cent and 8 per cent. Between 1960 and 1969, there was a gradual upward movement in these rates, but, by and large, the interest rate structure remained rather low. However, there was a sharp upward movement in deposit rates in 1971, consequent to a decision by the

Table 1

Current Interest Rate Structure in Sri Lanka – 31st December 1975

Treasury Bill Rate, Bank Rate and Deposit Rates of Commercial Banks[1]

Treasury Bills	Bank Rate	3 Months		6 months		12 months		24 months		36 months		48 months		Savings Deposits	
		Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
5.0	6.5	6.75	6.0	7.0	6.5	7.5	7.0	7.5	7.0	7.5	7.0	7.5	7.0	7.0	5.5

Commercial Banks' Advances Rates

Inter-Bank Call Loans		Bills Purchased and Discounted		Loans and Overdrafts secured by—											
				Govt. Securities		Shares of Joint-Stock Companies		Stock-in-Trade		Immovable Property		Others		Unsecured	
Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
8.0	5.0	12.0	8½	11.0	8½	12.0	7½	13.0	9.0	12.0	8½	13.0	8½	14.0	9½

Deposit Rates of National Savings Bank[2]

Savings Deposits	Fixed Deposits	Savings Certificates
7.2	7.5	11.0

Lending Rates of Long-Term Credit Institutions

State Mortgage Bank	Agricultural & Industrial Credit Corpn.	Development Finance Corpn. of Ceylon	National Housing Department	National Savings Bank
5–12	9–12	9½–12½	6–9	10 & 12

Note: 1. Some commercial banks pay an interest rate of 8 to 8½ per cent on special deposits

2. National Savings Bank rate on fixed deposits of Rs. 100,000 and over is 8%.

Source: Central Bank of Ceylon.

government to raise the deposit rates of savings institutions. The rate on savings deposits of Post Office Savings Bank (POSB) was raised from 3.6 per cent to 7.2 per cent per annum. The Ceylon Savings Bank (CSB) followed suit by putting up its rate on savings deposits from 4 to 7 per cent per annum and on fixed deposits from $4\frac{1}{2}$ to $7\frac{1}{2}$ per cent per annum. Since the main source of funds for the government securities was this captive market, it became necessary for the rate on government securities to be raised so as to provide these institutions with an adequate return in keeping with their enhanced costs of deposit mobilization. The interest rate on government securities was accordingly raised to 9 per cent per annum. Following this, the lending rates of official institutions like the State Mortgage Bank, the CSB and the National Housing Department were also raised upward. These rates varied from an average of about $8\frac{1}{2}$ per cent to about $11\frac{1}{2}$ per cent per annum.

With the upward revision of interest rates of savings institutions and on government securities, there was a misalignment in the general interest rates structure of the organized financial system, because the higher rates failed to percolate into commercial banks' deposit and lending rates. Between 1971 and 1974, deposit rates of commercial banks remained more or less at the same levels obtained in 1970. Although there was a gradual shift towards higher rates of lending by commercial banks, it was comparatively small when compared to the rise in deposit rates of savings institutions. One reason for the failure of advances rates to rise following the increase in deposit rates of savings institutions was the fact that the latter was not accompanied by a change in Bank rate which stood at $6\frac{1}{2}$ per cent having been raised from $5\frac{1}{2}$ per cent in January 1970. It is the Bank rate which normally set the guide-lines for the level of advances rates of commercial banks.

The consequent outcome of the failure of the commercial banks' deposit and advance rates to rise following the increase in the deposit rates of savings institutions was the increased pressure that was brought upon to bear on commercial banks' resources. Between 1971 and 1974 commercial bank credit to the private sector and government corporations increased rather sharply, necessitating a ceiling to be imposed on such credit with effect from May 24, 1974. Despite the ceiling, total credit to the private sector continued to rise as the credit ceiling had to be relaxed in favour of certain priority sectors.

On the other hand, the comparatively low deposit rates resulted in the failure of commercial banks to mobilize adequate deposits commensurate with the expansion in credit. The cash base for the expansion of commercial bank credit had to be, therefore, provided by the Central Bank.

In April 1975, certain measures were introduced by the Central Bank in order to reduce commercial banks' dependance on Central Bank accommodation, thereby forcing them to put up their deposit rates to attract deposits on which they could expand credit. Following the introduction of these measures, commercial banks raised their deposit rates to a level more or less on par with those prevailing in the NSB and also raised their lending rates by about 1 per cent.

The Present Interest Rate Structure in Sri Lanka

The present structure of interest rates could be briefly summarised as follows: Bank rate or the rate at which the Central Bank is prepared to make advances to commercial banks is $6\frac{1}{2}$ per cent. However, this rate rises to 9 per cent if the level of advances to individual banks exceed a certain specified limit, but Central Bank accommodation with respect to refinance granted under government agricultural credit schemes, the Guaranteed Price Scheme and the Medium and Long-term Credit Fund, and credit granted for the export of tea are excluded in determining the level of advances. The rate of interest on short-term borrowings of the government, i.e. on 3 months Treasury bills, is 5 per cent. The rate payable by the commercial banks on their savings deposits is $5\frac{1}{2}$ per cent, while on time deposits it varies between a minimum of 6 per cent to a maximum of $7\frac{1}{2}$ per cent depending on the period of time deposits. Some banks, however, pay upto $8\frac{1}{2}$ per cent on amounts exceeding Rs. 1 million. The National Savings Bank pays 7.2 per cent on the savings deposits and 7.5 per cent on fixed deposits. In view of the rather tight situation in the inter bank call loan market, specially after the introduction of the penal rate on Central Bank advances in April 1975, the call loan rate has registered a sharp increase and now varies between 5 per cent and 8 per cent. The interest rate on commercial banks' loans and advances to borrowers in the private sector range from a minimum of $7\frac{1}{2}$ per cent to a maximum of 14 per cent per annum. Within this range, the rates paid varies depending on such factors like the period of loan, type of security offered and the credit standing of the

borrower.   The Commercial banks, however, grant loans at preferential rates for certain priority purposes such as the promotion or development of agriculture where refinance facilities are available from the Central Bank.   The rate of interest on current issues of government securities (10 to 12 year bonds) is 9 per cent.   The lending rates of long term credit institutions vary as between institutions, by purpose and sometimes by the size of the loan.   The following are the minimum and maximum rates charged by respective institutions; State Mortgage Bank-5 to 12 per cent (5 per cent rate is applicable to loans granted for replanting of tea and establishment of alternative crops on tea and rubber lands), Agricultural and Industrial Credit Corporation-9 to 12 per cent, Development Finance Corporation-9½ to 12½ per cent, National Housing Department – 6 to 9 per cent (depending on the amount of the loan), and National Savings Bank – 10 & 12 per cent.   The rates payable by finance companies, on time deposits vary between 6 per cent to 16 per cent.   The rates charged by these companies on their advances range between 10 per cent and 24 per cent.   However, when allowance is made for the fact that the borrower does not receive credit for the repayment of principal during the currency of the loan, these rates work out to effective rates of 19 per cent and 43 per cent, respectively.

Having summarized the current interest rate structure in Sri Lanka, the next step would be to consider whether the present level of rates is appropriate in the context of current economic situation or whether there is a need for a further upward adjustment.   Another aspect of interest rate policy which needs examination is whether there are deficiencies in the current rate structure and, if so, what changes are required to remove the misalignment in rates.

Appropriateness of the Present Level of Interest Rates

As mentioned earlier, in recent years the demand for commercial bank advances had been rising fairly rapidly.   This was particularly evident in 1974 when the total advances of commercial banks rose by over Rs. 1,000 million.   The rapid increase in bank credit contributed for a rather sharp monetary expansion which necessitated the imposition of credit ceilings and other forms of credit rationing.   Although the level of interest rates was not the only or the most important reason behind the expansion in commercial bank credit, a higher level

of rates almost certainly would have had beneficial effects in moderating the rate of credit expansion. Therefore, there is a case to examine the feasibility of shifting to a higher level of interest rates which would, as far as possible, equilibrate the supply with the demand for credit.

The Case for a High Interest Rate Policy

The case for a high interest policy is based both on the advantages of high interest rates as well as the disadvantages of low interest rates, in the context of a perticular economic situation facing a country. Primarily, the rationale for a high interest rate policy lies in the fact that capital is scarce in less developed countries (LDCs) and that the most efficient allocation of scarce resources could be achieved by charging an appropriate cost for credit which would induce economy in the use of capital. Also, it is generally agreed that the marginal productivity of capital is higher in LDCs than in developed ones in view of the paucity of capital. Consequently, the real interest rate that equilibriate the supply with demand for funds for investment would also tend to be higher. However, paradoxically enough, interest rates in most LDCs are conspicuously low and this is sought to be justified on the grounds that high interest rates would discourage the use of bank credit in priority sectors which are economically week, but socially desirable. Sometimes attempts are made to overcome this problem by the use of differential interest rates and credit rationing as instruments of channelling credit, whilst pursuing a high interest rate policy.

The argument that higher interest rates would have adverse effects on investment is not valid in all circumstances. This argument presumes that interest costs form a significant element in investment decisions. The rate of interest enters into calculation of profits as a component of the discount rate applied to anticipated future returns. It may well be the case that in actual practice, the interest rate count for very little in investment decisions because the interest component is so overshowed by the risk component of the discount rate. Also, in the context of market situations prevailing in LDCs which is dominated by the existence of strict import and exchange control regulations, the availability of raw materials and investment goods form a far more crucial element in investment decisions. Furthermore, interest cost when marginal efficiency of capital is high is usually a very small

element in total costs, and becomes insignificant when compared with the high rates of return on investments obtained in most sectors. Also, in LDCs equity capital is far more important in business enterprises than borrowed capital so that investment behaviour is largely insulated from the market rate of interest. Finally, tax exemptions and other incentives are more important than interest costs in investment decisions in LDCs.

There are fears that higher lending rates would strengthen the inflationary pressures in the economy. This is unlikely to be the case. Rather, high interest rates could be regarded as a remedy for an inflationary situation and not a causal factor as the overall demand for credit is likely to be lower at a higher rate of interest than at a lower rate.

Lower interest rates can place increased pressure on the operations of the Central Bank. The demand for loanable funds is higher than what it would otherwise be and, consequently, commercial banks have very often to borrow from the Central Bank. When Bank rate is lower than or equal to the rate on savings and time deposits, it becomes profitable for the commercial banks to borrow from the Central Bank rather than mobilize deposits from the public. When the demand for credit is higher than the supply under stable conditions, the authorities have to ration credit very often.

A principal advantage of high interest rates is that it would tend to bring into the banking system and credit institutions the deposits and hoards which are outside the organized financial system. On the other hand, low interest rates would act as a positive disincentive to have one's savings invested in financial assets. This is particularly so during periods when the rate of interest becomes unrealistically low in relation to the current rate of inflation resulting in a negative rate of return to the investor. In addition, low interest rates encourge investments some of which having a high import content in addition to being capital intensive which otherwise would not have been undertaken thereby adding pressure on the demand for credit, necessitating discretionary credit and exchange controls.

Low interest rates can also have important implications on a country's balance of payments as they encourage capital outflow and discourage capital inflow. However, the more important aspect of

balance of payments pressure arises from the maintenance of the overall demand for imports at a level higher than otherwise would have been the case. Furthermore, a country can experience delays in the receipt of export proceeds because it becomes profitable for foreign importers to enjoy credit facilities in the local market rather than in their own markets where interest rates are high. Also, with low interest rates firms with access to institutional sources tend to borrow heavily rather than mobilize equity capital. This is particularly so in the case of foreign enterprises.

Returning to Sri Lanka's interest rates, while the level of rates which would equilibrate the supply with the demand for credit is almost certainly higher than the present one, the feasibility of an upward adjustment needs to be examined in the light of its implications on different economic variables, such as on savings, on allocation of resources and on the cost of the public debt. As higher rates affect different economic variables differently, there may be a need for a compromise solution. In what follows the implications and constraints in moving into a higher level of interest rates in Sri Lanka are discussed.

The Effects on Saving

In a capital scarce country both stimulation and mobilization of savings is a matter of utmost importance. The role of interest rates as an instrument of stimulating savings is still a matter of controversy. For instance, could the level of consumption (savings) be influenced decisively by an upward shift in interest rates? Some people may be induced to consume less than before in view of the higher return on unspent income. However, the extent to which consumption could be voluntarily depressed depends to a very large extent on the level of per capita income. It is very unlikely that, in a low income country where consumption habits are simple, savings could be stimulated significantly by marginal changes in interest rates. At best, it would act as a deterrent to dis-saving. On the other hand, some people who refrain from consumption in order to obtain a fixed future annuity may now save less than before, because now they have the opportunity of maintaining the same level of consumption in the future (price level remaining same) with less saving today. In general, the majority of consumers will not pay any attention to interest rate behaviour, but would save what they can save as a simple matter of habit.

Therefore, it is impossible to determine on theoretical grounds what the net effect of a interest rate change is likely to be and empirical studies done on different countries have resulted in conflicting conclusions. A Study done on the basis of experience in U. S. A. has concluded that an increase in the rate of interest leads to an increase in the present consumption – a reduction in the savings rate[1]. Another study combining both temporal analysis of individual Asian countries and inter-temporal cross section analysis of a large group of Asian countries has led to the conclusion that for Asia the net impact of real interest rate movements on personal saving was either negative or insignificant[2]. On the other hand, experience of Korea and China (Taiwan) during the sixties shows that the level of interest rates could significantly influence the rate of financial savings[3]. However, in both countries deposits rates were raised to abnormally high levels, somtimes ranging between 18 to 30 per cent per annum, and were coupled with other policy measures such as stabilization policies, balanced budgets, floating exchange rates, and a massive injection of foreign aid. In any case, although there may be a critical range within which monetary savings may respond to increases in interest rates, a rise in interest rates of such a magnitude may not be desirable unless it is assumed that investment activity is totally insensitive to interest rate changes.

While the role of interest rates as an instrument stimulating savings is admittedly very vague, there is evidence to show that the rate of interest could be fruitfully used as an instrument for more effective mobilization of savings through the offer of a realistic rate of return on savings. In fact, the principal advantage of higher interest rates in Sri Lanka's context appears to be the positive effects that it has in channelling deposits and hoards into the organized financial system. This could be demonstrated by Sri Lanka's experience in mobilizing savings during the period 1970 – 1975, as compared with the period 1965 – 69. During the period 1965 to 1969 there was a progressive upward movement in deposit rates of various institutions, but the level of deposit rates remained relatively low. In 1969, the maximum

1. Weber, Warren E., "The Effect of Interest Rates on Aggregate Consumption", **American Economic Review.** September, 1970, pp. 591– 600.
2. Williamson, Jeffrey G., "Personal Saving in Developing Nations: An Inter-temporal Cross-Section from Asia". **The Economic Record,** Vo. 44, 1968, pp. 194 – 210.
3. Chandavancar, Anand G., 'Some Aspects of Interest Rate Policies in Less Developed Countries: The Experience of Selected Asian Countries", **I.M.F Staff Papers,** pp. 48 – 112.

rate on savings deposits of commercial banks stood at $3\frac{1}{4}$ per cent and that of time deposits at 4 per cent, while the rate on savings deposits of CSB and POSB stood at $3\frac{1}{2}$ per cent and 3 per cent, respectively. The latter two rates which registered a moderate increase in 1970 were revised upward rather sharply in 1971 to reach 7 per cent and $7 \cdot 2$ per cent, respectively. On the other hand. as evident from Table II, there was no corresponding change in the rates offered by commercial banks on their time and savings deposits.

Table III sets out the growth of time and savings deposits of POSB, CSB and the Savings Certificates Fund (SCF) and of commercial banks during the period 1965 – 1975. It is seen that until 1969, the growth of time and savings deposits have been modest. During the five year period 1965 to 1969, total deposits increased by Rs. 582 million registering an average annual increase of Rs. 116 million. In comparison, between 1970 and 1975 these deposits increased by Rs. 1730 million, recording an annual average increase of Rs. 288 million. Thus, it is seen that the magnitude of savings deposits has very nearly doubled during the period 1970 to 1975, when deposit rates were uniformly higher than during the former period. Presumably, a substantial amount of funds that had been circulating previously in the unorganized market was transferred to institutional sources in response to higher returns. One could, of course, argue that the real increase in these deposits would have been considerably lower if allowance was made for the price increases that occurred during this period. On the other hand, the very fact the public wished to have an increased share of their savings invested in financial assets despite inflationary pressures indicates a favourable response to higher deposit rates.

Of course, apart from higher deposits rates a number of other factors contributed for the higher rate of deposit mobilization achieved during 1970 – 75. Firstly, in 1970 currency notes of the denomination of Rs. 50 and Rs, 100 were demonetised. This had an immediate impact of a fairly larger volume of savings which would otherwise have remained hoarded in the form of cash getting into institutional sources. The demonetisation exercise also created an awareness in the minds of the people of the dangers involved in having one's savings hoarded in the form of cash rather than have them invested in financial or real assets. Then, the year 1972 witnessed a major institutional

Table II

Deposit Rates of Commercial Banks and Savings Institutions, 1969–1975

	Govt. Treasury Bills	Central Bank Rate on Advances	Commercial Banks — Fixed Deposits 3 months Max.	3 months Min.	6 months Max.	6 months Min.	12 months Max.	12 months Min.	Savings Deposits Max.	Savings Deposits Min.	Post Office Savings Bank	Ceylon Savings Bank Savings	Ceylon Savings Bank Fixed	Savings Certificates
1969 Sept.	3·64	5½	3¼	3¾	3½	3¾	3⁴	3¾	3⅝	3¼	3·0	3·5	4½	5·0
Dec.	4·10	5¾	4	3⅝	4	3⅞	4	3¾	3¾	3¾	3·0	3·5	4½	5·0
1970 Jan.	4·12	6½	4⅞	4⅛	4⅞	4⅛	4⅞	4½	4⅜	4½	3·6	4·0	4½	5·0
Dec.	4·76	6½	4⅞	4⅛	4⅞	4½	4⅞	4⅛	4½	4½	3·6	4·0	4½	5·0
1971 Jan.	4·76	6½	4¾	4½	4¾	4½	4¾	4⅛	4½	4½	7·2	7·0	7½	5·0
Dec.	5·00	6½	4⅞	4⅛	4⅞	4⅜	4⅞	4⅛	4½	4½	7·2	7·0	7½	5·0
1975 April[1]	5·00	6⅞	6¾	6	7	6⅜	7½	7	5¼	5¼	7·2[2]	7·2[2]	7½[2]	11·0[2]

Source: Central Bank of Ceylon

1. For deposits of over Rupees One million rates are to be negotiated. Some banks offer 8½ per cent on such deposits.
2. National Savings Bank from 1-4-1972.

Table III

Fixed and Savings Deposits of the Public with the P.O.S.B., C.S.B., Savings Certificate Fund and the Commercial Banks 1965 – 1975

	(1) P.O.S.B.		(2) C.S.B.		(3) Savings Certificate Fund		(4) Total (1+2+3) =		(5) Commercial Banks (a)		(6) Total (4+5) =	
	Amount	Change	Amount	Change	Amount	Change	Amount	Change	Amount	Change	Amount	Change
1965	427	+ 25	87	+ 5	42	+ 5	556	+ 35	549	+ 40	1105	+ 75
1966	438	+ 11	91	+ 4	56	+ 14	585	+ 29	557	+ 8	1142	+ 37
1967	451	+ 13	93	+ 2	79	+ 23	623	+ 38	655	+ 98	1278	+ 136
1968	473	+ 22	100	+ 7	91	+ 12	664	+ 41	767	+ 112	1431	+ 153
1969	490	+ 17	102	+ 2	86	– 5	678	+ 14	934	+ 167	1612	+ 181
1970	594	+ 104	113	+ 11	73	– 13	780	+ 102	1111	+ 177	1891	+ 279
1971	659	+ 65	173	+ 60	65	– 8	897	+ 117	1251	+ 140	2148	+ 257

	National Savings Bank (b)									
	Amount	Change	Amount	Change	Amount	Change	Amount	Change	Amount	Change
1972	967	+ 110	65	—	1032	+ 135	1456	+ 205	2488	+ 340
1973	1147	+ 180	98	+ 33	1245	+ 213	1337	– 119	2582	+ 94
1974	1416	+ 269	107	+ 9	1523	+ 278	1582	+ 245	3105	+ 523
1975	1581*	+ 165*	113	+ 6	1694*	+ 171*	1648	+ 66	3342*	+ 237*

Source: Central Bank of Ceylon.

*   Provisional

(a)   Excludes Government and Non-Resident deposits.

(b)   National Savings Bank took over the assets and liabilities of the Post Office Savings Bank, Ceylon Savings Bank and the Savings Certificate Fund with effect from 1st April 1972.

reform in Sri Lanka with respect to mobilization of savings when the NSB was established by incorporating the CSB, POSB and the SCF. With the formation of the NSB the deposit and withdrawal procedures were streamlined and simplified. In addition, the NSB opened up branches in provincial towns which meant that depositors in these areas had direct access to the Bank rather than having to deal with the post-office. The period 1970 – 75 also witnessed a sharp expansion in Sri Lanka's commercial banking net work and the number of bank offices increased from 165 at the beginning of 1970 to 263 at the end of December, 1975. With the spreading of the banking habit, the bulk of the rural savings came to be invested in financial assets rather than being hoarded.

While conceding the fact that these factors would have substantially contributed to attract a higher volume of savings into institutional sources, the fact that higher interest rates played a significant role towards this development cannot be denied. When interest rates are high people become conscious of the opportunity cost of keeping savings in the form of hoarded currency. The logical conclusion which follows is that the deposits of savings institutions have been responsive to changes in interest rates. This is amply demonstrated by the fact that savings institutions which offered higher rates have been conspicuously more successful in mobilizing savings than those whose rates were relatively low.

As is evident from Table II, the deposits rates of commercial banks were significantly lower than those of other savings institutions between 1971 and April 1975 and this had serious implications on their competitive position in mobilizing savings and therefore on their liquidity. Until 1969, the growth of time and savings of POSB, CSB and SCF had been of very modest proportions and the average increase had been roughly Rs. 31 million per annum. Over the same period, time and savings deposits of commercial banks rose by Rs. 435 million representing an average annual increase of Rs. 87 million. During the period 1970 to 1975, the respective roles of commercial banks and other savings institutions as mobilizors of savings have been reversed. During this period time and savings deposits of NSB, (POSB, CSB and SCF) increased by Rs. 988 million, recording an average annual increase of Rs. 165 million. On the other hand, commercial banks encountered a slight set back in their ability to

mobilize savings and their time and savings deposits increased by only Rs. 657 million or by an annual average rate of Rs. 110 million, despite the considerable expansion in the commercial banking net work and despite the greater degree of liquidity inherent in the savings deposits with commercial banks.

An important factor which contributed for the large scale shift of deposits towards the NSB was the interest rate differential prevailing in the two types of institutions. Interest rates on savings deposits with the POSB and the CSB were raised to 7·2 per cent and 7·0 per cent respectively in January 1971, while the rate on fixed deposits of CSB was raised to 7·5 per cent. These rates were maintained roughly at the same levels after the formation of the NSB. On the other hand, the deposit rates of commercial banks remained around 4½ per cent until April, 1975. There is little doubt that the higher interest rates offered by the NSB helped to attract a substantial volume of savings which would otherwise have been channelled into commercial banks.

Insofaras there is a critical range within which interest rates are effective in mobilizing additional savings, there is a strong case for a further upward shift in deposit rates, if it could be achieved without constricting the rate of development and if it does not involve serious implications on other economic objectives. Perhaps a further increase in the deposit rate by about 2 per cent will have considerable beneficial effects in attracting the balance of the hoarded money into institutional sources. Furthermore, a deposit rate of about 9 per cent will enable considerable inroads to be made into private mortgages where the current interest rate is about 10–12 per cent, and into the deposits of finance companies.

An important consideration in raising the deposit rate would be to provide an adequate return to the depositors, for the provision of a positive real rate of return should be a minimum objective of interest rate policy. It is a fact that if the deposit rates are lower than the annual increase in prices, or in other words, where the real rate of return is negative, there is little incentive for people to save. The years 1973 and 1974 witnessed a rapid price inflation in Sri Lanka and when the deposit rates are deflated by an appropriate index for changes in the purchasing power of money, the resulting real rate of return would have been negative by a significant margin. Even on

the basis of the price increases reflected in the Consumer Price Index, which grossly understate the extent of price increases, the real rate of return on savings deposits have been negative during these years.

Table IV

Nominal and Real Rate of Interest (per cent)

Year	Rice in Cost of Living Index	Fixed Deposits of Commercial Banks		Fixed Deposit of National Savings Bank	
		Nominal Rate	Real Rate	Nominal Rate	Real Rate
1973	9.7	5.0	−4.7	7.5	−2.2
1974	12.7	5.0	−7.7	7.5	−4.9
1975	5.2	7.5	+2.3	7.5	+2.3

However, the criterion of ensuring a positive real rate of interest, which becomes exceptionally significant in periods of rapidly rising prices, cannot always be adopted uncritically regardless of prevailing conditions. A rigid adherence to the yardstick of positive real rates of interest may necessitate the manipulation of deposit rates every time the rate of price change is sufficiently large to push the real rate below zero. Such frequent changes in deposit rates are neither desirable nor feasible and could even lead to unsettling effects on the propensity to save. Moreover, a change in the deposit rates can be effected only if its effects on other economic objectives are not found to be harmful, because a shift in the deposit rates will have to be followed by a similar movement in both short-term rates (Bank rate and the Treasury bill rate) and the long-term rates (Bond rate and the lending rates). A rise in the long-term rates is not without serious implications on resource allocation and on the cost of the public debt. On the other hand, there are indications that the price increases which were relatively sharp during the previous two years have been significantly moderated in 1975 and thereafter. In fact, on the basis of price increases reflected in the cost of living index, the current rates on deposits have resulted in a positive real rate of return in 1975. Therefore, the need for an upward shift in the deposits rates to counter loss of purchasing power due to price increases is much less urgent today than it was during the 1973-74 period.

The Effects on Resource Allocation

It can be argued that an interest rate structure which would reflect the scarcity of capital in relation to other factors of production is the only justifiable method of allocating scarce resources. In other words, the interest rate weapon could be used as a rationing device for efficient allocation of resources among alternative forms of investment. In the past, the demand for credit in Sri Lanka has far exceeded the supply under stable conditions necessitating quantitative restrictions of various types to be imposed as a device of rationing credit. This has been so largely because the level of interest rates had been too low in relation to the supply of credit. From this viewpoint there is a strong case for a further upward shift in lending rates. However, the principle of rationing credit through the price mechanism alone cannot be pursued in all circumstances without adverse consequences on development. A specific sector may need concessional treatment, as it might find it difficult to compete for credit with other sectors if the free play of market forces is allowed to operate. In such a situation, a more discriminatory interest rate structure, under which credit to priority sectors are provided at concessional rates while the other sectors being made to bear the true cost of capital, would be more appropriate.

At present, domestic agricultural sector gets credit at concessional interest rates under the GPS and the New Agricultural Credits Scheme, for which refinance facilities are provided by the Central Bank. Accordingly, a pattern of high interest rates is unlikely to affect the activities in this sector, as the refinance schemes could be continued.

Higher interest rates will probably have far-reaching implications on house building. A considerable share of funds for house building is provided by institutional sources. At present the Housing Department charges 9 per cent on amounts over Rs. 15,000 and the rate charged by commercial banks may be even higher. High interest rates on housing loans have the effect of raising the monthly instalments to unreasonably high levels particularly for the salaried class. Thus, an upward movement in interest rates is bound to be detrimental to the house building industry. Shifting to a higher interest rate structure, therefore, would mean that the government would be compelled to maintain an interest subsidy scheme for house building

which would itself constitute a strain on the government budget. On the other hand, the need for concessional treatment is lessened by the substantial fiscal incentives now available to the building industry under which both interest payment and a part of the capital repayment are deductable from taxable income. Such relief may partly take care of increased interest burden falling on house builders.

There is a general belief that the export sector deserves concessionary credit facilities in view of the importance of this sector in the national ecomomy. In this respect, it must be pointed out that the concessionary interest rates to export enterprises may be counter-productive from the point of view of the national economic benefits. To the extent that exporters are able to obtain more credit on favourable terms from the local banks, their ability to extend credit to prospective importers abroad is improved In fact, importers abroad do tend to take advantage of interest differentials between the importing country and the exporting country. Hence, concessionary interest rates to exporters may well result in an improvement in credit terms to importers abroad with a consequent increase in the lag of export receipts. Such a tendency would not only confound Sri Lanka's current foreign exchange problems but also the country will have to inerease its short-term borrowings abroad at interest rates which are very unfavourable.

It is important to consider whether interest rates are a determining factor of investment decisions in the industrial sector. In recent years, in view of the foreign exchange scarcity, the availability of raw materials and investment goods has become a crucial factor in investment decisions in this sector. On the other hand, the fact that the market for domestically produced goods is protected by severe import controls make it possible for industrialists to earn abnormally high profits. Consequently, interest costs which usually represent a small element in total costs are unlikely to affect significantly the industrial sectors' decisions on investment. The same applies to other activities such as wholesale and retail trade, mining, transport, tourism etc. Investment in tourist hotels is also eligible for tax holidays, investment off-sets and CRA facilities.

In sum, a rise in the cost of credit is likely to affect some sectors adversely while its effect on major part of economic activity are likely to be minimal. Consequently, an upward shift in rates could be

achieved without much dislocation in investment activity if it is accompanied by an extension of the existing discriminatory interest rate policy.

The Effect on the Cost of Public Debt

In the pursuit of a high interest rate policy, one of the biggest problems faced in Sri Lanka would be the implications that it would have on the cost of government borrowings, because it would be difficult to ensure that the higher rates are not communicated to government borrowing rates. In recent years, borrowings from non-bank sources have become an important source of funds for the government budget. The existence of a captive market for government securities coupled with the paucity of equally safe alternative investment outlets for institutional savings has enabled the government to borrow fairly liberally in the domestic market. Since the formation of the NSB and the centralization of savings, the NSB, the EPF, the Joint Investment Fund and the Insurance Corporation are the principal subscribers to the Rupee Loan Stock. These institutions together accounted for about 95 per cent of the total loans floated in 1975. A direct consequence of an increase in deposit rates will be a more or less proportionate rise in the bond rate, since the bulk of the investments of the NSB is in government securities and because a margin of about 2 per cent would be required by the NSB to meet its operating expenses. An upward revision of the bond rate would result in a budgetary problem of finding sufficient funds for servicing the debt. The servicing cost of domestic debt is generally regarded as a charge on current receipts. In recent years, rising interest cost on the public debt has made heavy demands on current government revenue, there by reducing the current receipts available for capital formation. For instance, in 1974, interest on domestic debt absorbed as much as 12 per cent of the total current expenditure. One redeeming feature, however, is the fact that as the bulk of interest payments is accruing to the captive market, it is available for re-borrowing by the government.

At present, government stock to the value of approximately Rs. 1,000 million are floated annually. An upward revision of the government bond rate, therefore, would mean that the government will have to float all new loans at higher rates, with consequent increases in the interest cost of the public debt. Assuming that the deposit rates are to rise by 2 per cent and the government bond rate is in turn

raised by 2 per cent to 11 per cent, the additional cost in the initial year would be Rs. 20 million. This figure will keep on rising depending on the level of annual issues in the future. For instance, assuming that the government continues to float new bonds to the value of Rs. 1,000 million each year during the next 10 years, the additional interest costs arising from the increase of the bond rate by 2 per cent will be as shown in Table IV. It is seen that the government will have to find an additional Rs. 1,100 million during next ten years if the bond rate is raised by 2 per cent.

Table V
Interest Cost on New Issues of Government Bonds

Rs. Million

Year	1	2	3	4	5	6	7	8	9	10
Extra Annual Interest Commitment	20	40	60	80	100	120	140	160	180	200
Extra Annual Interest Commitment cumulated	20	60	120	200	300	420	560	720	900	1,100
Overall Interest Costs of fresh borrowings	110	220	330	440	550	660	770	880	990	1,100
Overall Interest Costs of fresh borrowing cumulated	110	330	660	1,100	1,650	2,310	3,080	3,960	4,750	6,050

Although the undesirable effects of increased interest costs of public debt on income distribution would be minimal, in view of the fact that subscriptions to government securities are largely from institutional sources, the rapidly rising interest costs could result in severe strains on future budgets. Because of the government's heavy dependence on this type of finance, a further upward shift in the bond rate is likely to create fiscal problems in the future. In a way, in view of the availability of a large and growing captive market the government is assured of progressively rising support for government securities at the existing interest rates and the payment of higher interest on funds that would flow into the Public Debt Department in any case would amount to a needless addition to the cost of public debt service. However, in the long-run the government will not be able to insulate from the responsibility of having to pay an economic price for its borrowings.

Although, debt service burden should not be a decisive argument against realistic interest rates on government securities, a large service burden on the public debt is best if avoided, because such a burden is likely to place a number of knotty problems in the hands of the government. On the other hand, equity demands that the government pays a realistic rate on its borrowings, specially in view of its monopolistic position as a borrower. This follows that the existence of a captive market should not preclude the government from pursuing an interest rate policy which would provide an adequate rate of return to the investors in government securities. On the whole, the large and rapidly growing public debt would be the most formidable problem facing the authorities in the pursuit of a rational interest rate policy in the future. Of course, the high interest payments arise as much from higher volume of annual borrowings as from the higher interest rates. In this context, high bond rates could be viewed as a policy aimed at discouraging the government from resorting to long term borrowing. However, in the face of current fiscal problems facing the country whether this is a feasible proposition is highly questionable. Perhaps this could be achieved if the increase in the deposit rates is coupled with other measures which would substantially increase government revenue, thereby obliterating the need for continuous large scale borrowings.

Summary

A change in interest rates will have different implications on different economic objectives. Therefore, decisions on interest rate changes will have to be based on a delicate balancing of rates appropriate for the achievement of specific objectives, whilst at the same time safeguarding others. For long years Sri Lanka had been pursuing a low interest rate policy and this had been motivated by such factors as the desire to encourage investment and minimization of the costs of public debt. During the period 1970-75 there had been a fairly sharp upward movement in interest rates. However, the present level of rates still appear to be too low in relation to the availability of credit. In Sri Lanka, as in other LDCs, the case for a high interest rate policy is overwhelming. However, shifting to a higher level of interest rates is not without problems.

A marginal increase in the rate of interest is unlikely to affect the level of savings to any significant extent. On the other hand, such an increase can be beneficial in channelling savings and hoards

further into the organized financial system. There is evidence to show that the deposits of savings institutions had been responsive to changes in interest rates. Hence, a further increase in the deposits rate by about 2 per cent will help to attract the balance of the hoarded money into institutional sources, Also, equity reasons demand a rise in the deposits rate so as to provide an adequate real rate of return to the savers. However, the urgency for the latter has been lessened by the moderation in the price increases observed in recent months. Moreover, a change in the deposit rates can be effected only if its effects on other economic objectives are not found to be harmful.

Although the rate of interest could be used as a rationing device for efficient allocation of resources among alternative forms of investment, a more discriminatory interest rates structure under which credit to priority sectors are provided at concessionary rates would be more appropriate in the context of Sri Lanka's economic structure. Hence, an upward shift in the interest rates structure could be achieved without much of a disallocation in investment activity, if it is accompanied by an extension of the existing discriminatory interest rate policy.

Shifting to a higher interest rates structure would involve serious implications on the cost of government borrowings. As the government is heavily dependent on domestic non-inflationary borrowings and as the government bond rate could not be insulated from a general change in the interest rates structure, an upward shift in interest rates would result in substantial increases in service payments on the public debt. On the one hand, the large and recurring budget deficits demands that the interest rate on government securities is maintained at a reasonably high level in relation to the other rates in the rate structure to enable sufficient funds to be raised from non-expansionary sources, while on the other, any increase in the bond rate would escalate the service payments on the public debt thereby reducing the revenue available for other expenditure. Hence, the large and rapidly growing public debt is the most formidable problem facing the authorities in the pursuit of a rational interest rate policy in Sri Lanka.

fortunes of foreign trade. Low export prices, increasingly adverse movements in the terms of trade and the resulting low level of foreign exchange earnings have stood in the way of rapid economic growth.

Table 1

Gross National Product, Growth Rates, Population and Per Capita Income

Year	GNP (at constant prices) Rs. Mn.	Annual Growth Rate (%)	Per Capita Income		Population ('000)	Annual Growth Rate (%)
			Rs.	(%)		
1959	5,893		612		9,625	
1960	6,289	6·7	636	3·9	9,896	2·8
1961	6,425	2·2	632	−0·5	10,168	2·7
1962	6,710	4·3	643	1·7	10,443	2·7
1963	6,900	2·8	648	0·8	10,646	2·0
1964	7,363	6·3	675	4·2	10,903	2·5
1965	7,551	2·5	676	0·1	11,164	2·4
1966	7,818	3·5	683	1·0	11,440	2·5
1967	8,210	5·0	702	2·7	11,703	2·3
1968	8,901	8·4	742	5·9	11,992	2·5
1969	9,301	4·5	759	2·3	12,252	2·2
1970	9,686	4·1	774	2·0	12,514	2·1
1971	9,725	0·4	766	−0·6	12,762	1·5
1972	10,030	3·1	770	0·5	13,020	2·0
1973	10,383	3·5	784	1·7	13,249	1·8
1974	10,731	3·4	801	1·9	13,393	1·6
1975	11,115	3·6	817	2·0	13,603	1·6

In Sri Lanka, especially in the last decade the benefits of economic growth have percolated down to the lower income brackets, more rapidly than in many other developing countries because of a wide range of specific government policies designed to transfer income. Even though the increase in the Gross National Product at constant prices in the last decade averaged about 4 per cent, the share of the Gross National Product accruing to the middle and lower income groups has been proportionately greater. This has been achieved through the composite process of extensive welfare transfers, fixing minimum wages, through income, gift, wealth and turnover taxes and ceilings on ownership of land, house property, income and wealth.

Income transfers through welfare expenditure have been the most important component of the strategy of redistribution. Government has continued to maintain its commitments on welfare despite advice that subsidies, especially on food, should be curtailed. However, due to the increasing shortage of financial resources and the need to divert more expenditure to development this policy has undergone a little modification in the seventies. But the latter has been grossly inadequate to make on impact Budgetary policy throughout has been concerned with transfer of income and wealth from the more affluent to the poor.

Government Measures for Income Distribution-
The Development Plans

While structural change in the economy has made only a limited contribution to income redistribution, government has directly played a very important part throughout the years in reducing income inequality. Efforts in the last twenty years to develop the economy through successive long term plans have met with little success and in each one of these plans no attempt was made to modify the social welfare policies and to divert more expenditure from consumption to investment. Commitments on welfare were more or less accepted as part and parcel of general economic policy by successive governments. Even in the latest Five Year Plan of 1972 there is no emphasis on the need to divert more resources from welfare to investment by curtailing expenditure on the former. On the other hand successive plans were designed to achieve a more equitable distribution of income by increasing outlays on development.

For instance, in the first systematic long term plan prepared in 1955, the Six Year Programme of Investment 1954/55 – 1959/60, considerable weightage was given to investment in agriculture. The main objective was to appreciably raise the yields of paddy and increase the output of subsidiary foodstuffs. The plan included proposals for improving social services including water supply, housing, hospitals, schools and training institutions. Although the Six Year Programme of Investment could not be implemented because a new government took office in 1956, yet the strategies embodied in this Plan aimed at reducing intersectoral income disparities and raising income levels in the rural sector through substantial increases in agricultural productivity. The data on income distribution from the Consumer Finance Survey 1953 clearly showed that there were substantial income disparities between the urban and the rural sectors.

In the next long term plan, the Ten year Plan issued in 1958, a programme of investment was laid down for both private and public sectors. Increasing unemployment was taken notice of for the first time in the mid fifties, and this was looked upon as one of the key questions of relevance to development planning. In the Ten Year Plan, the stress was laid on fields of productive activity for the future workforce which was estimated to more than double in the twenty five year period ending in 1981. The basic objective of the Ten Year Plan was to raise the standard of living over a long period and to bring about an effective reduction of unemployment and underemployment. The largest amount of financial resources were allocated to industry, because it was felt that the employment objective could be successfully achieved through industrialisation. The Plan, also continued to stress social welfare, and substantial amounts of expenditure were earmarked for housing, health, education and social services. But in relation to the strategy in the Six Year Programme of Investment there was much less emphasis on agriculture. In 1959, although a considerable amount of investment was necessary for agriculture, because the bulk of the population resided in the rural sector, comparatively higher allocations of resources were made for industry, power, transportation and communications. This tended to reduce investment in rural agriculture to a secondary position,

In the Five Year Plan issued in 1972 the strategy was completely changed with greater emphasis on the equalisation of income and wealth. While no modifications were proposed in the existing social welfare expenditure, the bulk of the investment was designed to reach rapid self sufficiency in food, which would in turn bring prosperity to rural areas. The objective of the Plan was to diversify the range of investments with a view to rapidly increasing the labour absorption capacity of the economy.

Development planning in Sri Lanka has not been successful because none of the plans that were issued could be effectively implemented. This was partly because increasing balance of payments and financial difficulties did not provide the administration with adquate resources to carry out plans. Furthermore, implementation strategies were not properly conceived; greater emphasis seems to have been paid to plan formulation and the issue of elaborate documents rather than to the project content of plans and how best they could be implemented.

The Tax System

The tax system has made a major contribution towards the reduction of disparities in income and wealth. Tax policy along with other legislative measures have been increasingly focused on reducing wealth and higher incomes. In this respect the gifts tax, the levy on capital, the acquisition of businces concerns under the Business Under-takings Act, and two phases of the land reform programme have directly contributed to reduce income and wealth. Apart from these, tax policy and welfare expenditure have been instrumental over a long period of time in transfering income frcm the higher to the lower income groups.

Upto 1953/54, government derived tax revenue mainly from customs duty, import and export duties, excise duties on liquor, tobacco, matches, income tax, estate duty, stamp duty and from the licensing of motor vehicles and radios. It needs to be emphasised that before 1953/54 the tax structure did not directly contribute very much to the diffusion of wealth, because the estate duty was the only tax that was instrumental in reducing wealth. Estate duty was not a new tax and has existed in Sri Lanka for more than fifty years. It is payable in the case of deceased persons who are domiciled in Sri Lanka on the value of their movable and immovable properties; the rates are determined according to the value of a person's entire immovable properties situated within and outside the country. The duties are progressive and the tax exemption limit is Rs 50,000. At the time when the estate duty was the only tax on wealth, and that was before 1956, it was sufficiently regressive to make significant changes in the ownership of wealth particularly of those who inherited wealth. The taxes prevailing in the early fifties, other than the estate duty, were generally not redistributive.

Upto the late fifties the income tax was the only major direct tax that provided resources to support a program of welfare services. The liability of persons to income tax and the rates of taxation have varied from time to time. The most important feature about the income tax is that its base has changed very frequently depending on the exemption limit. The variation in the number of tax payers is due to the frequent raising and lowering of the exemption limits. With the result that there has been a very wide fluctuation in the number of tax payers ranging from 60,000 to 150,000. The table below sets out the number of income tax payers and the amounts accruing to revenue

STAFF STUDIES

Table 2

Income Tax Payers and Receipts from Income Tax

	Number of Tax Payers Assessed*	Mid-year Population Nos.	No. of Income Tax Payers Assessed as a % of Population	Income Tax Revenue Rs. Million
1955 – 56	53,355	8,929,000	0·6	184
1956 – 57	61,152	9,165,000	0·7	186
1957 – 58	61,739	9,388,000	0·7	189
1958 – 59	39,505	9,625,000	0·4	194
1959 – 60	50,201	9,896,000	0·5	189
1960 – 61	56,030	10,168,000	0·6	229
1961 – 62	58,135	10,433,000	0·6	231
1962 – 63	83,488	10,646,000	0·8	217
1963 – 64	91,648	10,903,000	0·8	281
1964 – 65	103,348	11,164,000	0·9	291
1965 – 66	101,584	11,439,000	0·9	275
1966 – 67	103,584	11,439,000	0·9	310
1967 – 68	138,865	11,992,000	1·2	315
1968 – 69	110,180	12,262,000	0·9	343
1969 – 70	151,824	12,550,000	1·2	440
1970 – 71	150,603	12,699,000	1·2	444
1971 – 72	100,256	13,020,000	0·8	562
1973	123,089	13,249,000	0 9	700
1974	120,577	13·393,000	0·9	599
1975	n·a·	13,603,000	—	770

Source: Administration Reports of the Commissioner of Inland Revenue

* Generally the actual number of taxpayers have been less that the number listed in this column. For some years it is related to the mumber of operative tax files.

Despite the successive changes in the incidence of the tax, revenue from the tax has not fallen, because the increase in the base has only brought in a large number of marginal tax payers. The bulk of the rich people whom the Inland Revenue has been able to bring within the tax net have always been liable to the tax. The rise in the number of tax payers since 1969 has been due to the improved efficiency of the Department of the Inland Revenue and the efforts made to considerably reduce the level of tax evasion and tighten up collection. As a percentage of the total number of gainfully employed persons, income tax payers have constituted a very negligible proportion, or just about 2 per cent of the workforce or less than 1 per cent of the population.

A tax which has had a major redistributive effect has been the wealth tax which was introduced in 1958 on the basis of recommendations made by Nicholas Kaldor for a comprehensive reform of the

Sri Lanka tax system.   This tax has been levied since the fifties on persons residing in Sri Lanka on their net wealth other than immovable properties outside Sr. Lanka.   The tax is progressive and the graduation is effected by a tax free exemption limit on net wealth of Rs. 100,000 and a progressive scale of rates.   Another tax introduced under the Kaldor proposals which has tended to reduce both income and wealth has been the gifts tax which is on a graduated scale and is integrated with estate duty.   Table 3 indicates the annual receipts from estate duty, wealth and gifts taxes.

Table 3

Receipts from Estate Duty, Wealth and Gifts Taxes

Rs. million

	Total Receipts (Government Revenue)3	Estate Duty	Wealth Tax	Gifts Tax
1955 – 56	1,257·2	6·4	—	—
1956 – 57	1,260·5	3·3	—	—
1957 – 58	1,280·0	5·4	—	—
1958 – 59	1,330·4	7·5	...	...
1959 – 60	1,403·8	7·7	1·21	1·21
1960 – 61	1,513·9	9·8	11·81	11·81
1961 – 62	1,620·6	8·8	11·61	11·61
1962 – 63	1,593·4	8·3	12·41	12·41
1963 – 64	1,759·0	8·4	12·71	12·71
1964 – 65	1,816·4	7·1	18·91	18·91
1965 – 66	1,833·3	10·6	12·01	12·01
1966 – 67	1,954·8	8 8	9·6	1·7
1967 – 68	2,156 4	9·0	10·0	1·5
1968 – 69	2,497·3	14·3	9·8	1·6
1969 – 70	2,736·4	12·0	13·5	2·7
1970 – 71	2.878 0	14·4	20·1	4·6
1971 – 722	3,237·7·	14·2	16·2	5·0
1973	4,024·0	13·6	31·1	9·9
1974	4,785·9	10·7	25·5	7·8
1975	5,085·7	10·8	22·0	4·7

Source: Accounts of Government of Ceylon Part (I)

1. From the financial year 1958/59 to 1965/66 collections from the wealth tax and the gifts tax were shown as a lump sum under the category 'Personal Tax'. From the financial year 1966/67 onwards, revenue from these two taxes are shown separately.

2. Pro-rata for 12 months.

3. From 1971/72, revenue in the Government accounts includes profits from food sales, which have been eliminated from this table for meaningful comparison.

With the budget for 1970/71, the present government that came into power in that year, introduced further tax measures to reduce wealth. Indeed, this constituted the beginning of a new policy designed to appreciably reduce highest incomes and wealth in the country. One such measure was the capital levy on wealth tax payers with an exemption limit of Rs. 200,000 and in the case of persons with a residence the exemption limit was Rs. 250,000. The levy was paid over a period of three years. This tax has affected wealth held in the form of land, housing, industry and plantations. A great many of those who have been liable to pay this tax have been compelled to dispose of their holdings of land and other assets which has in turn resulted in a greater diffusion of wealth.

Colonisation and Land Alienation

Government policies in the last three decades have contributed to the transference of income to the domestic agricultural sector in many ways. Within this framework, the policy of colonisation of land and increasing expenditure on the rural economy has contributed to raise incomes and remove disparities. Since the thirties there has been interest in the expansion and development of colonisation schemes linked to major irrigation reservoirs. The object of colonisation was to provide employment and develop new patterns of farming, while achieving a fair level of self sufficiency in the production of rice. However, the impact of these schemes in the prewar years was very marginal because colonists and settlers were affected by disease, chiefly malaria. From 1939 onwards the main object of land policy was the preservation of the rural peasantry through a scheme of state aided land colonisation based on the restoration of ancient irrigation reservoirs. It provided for the clearing of land by government, the restoration of irrigation reservoirs, construction of houses and even the payment of a subsidy to colonists to settle down.

Land alienation upto 1965 came under four categories. Under major colonisation schemes peasant families were shifted from the wet zone and the mid country areas to the dry zone and each colonist was given three acres of paddy land and two acres of highland. On this basis, between 1939 and 1975 about 50,000 families have been settled in the major colonisation schemes. Between 1964 and 1973 an extent of 86,212 acres were alienated to peasants living in colonisation schemes for the cultivation of paddy and highland crops. The second category

of land distribution was the village expansion schemes, where land was alienated to landless peasants. Here, most of the lands given to the peasants were highland. A total of 303,000 acres were alienated under this scheme upto 1955 and 225,000 acres between 1955 and 1966. More recently large extents of land available under land reforms have been alienated to peasants under village expansion schemes. In the first year of land reforms some 19,558 acres were distributed to individual villagers. These lands have been given to peasants free of cost, and this is another subsidy that farmers have received. The third phase of this programme was the provision of land to middle class people for agricultural development. The upper income level of middle class Ceylonese was fixed at Rs. 12,000 per year, but later it was increased to Rs. 24,000. Under this scheme, no assistance is extended by the government except for loans and the allocation of land for development. The total alienation under this scheme upto the end of 1955 was 7,000 acres and after 1955, 66,000 acres. Between 1964 and 1973 the total land alienated under these various schemes was 268,000 acres. This figure excludes lands given to youth settlement schemes and middle class alienation. The Land and Labour Utilisation Survey of 1975 undertaken by the Economic Research Department of the Central Bank of Ceylon estimated that about 30 per cent of total land area is under colonisation or village expansion schemes.

Factors Increasing Agricultural Productivity and Rural Incomes

The pattern of government investment expenditure in the past fifteen years shows that as much as 25 per cent of the capital expenditure has been diverted to non-export agriculture. The basic elements of capital in a farm such as land, irrigation and dwelling houses have to be provided because the enlargement of the volume of capital resources of this kind is a prerequisite for increasing agricultural productivity and for further development. The pattern of production in the rural economy has recently changed from subsistence farming to surplus production, mainly as a result of incentives provided by government. These include a guaranteed price, the subsidy on fertiliser, seed and other inputs and the provision of more water to paddy farmers.

From about 1956 onwards the emphasis in peasant agriculture was mainly on increasing the output of paddy. Paddy production increased from 31·3 million bushels in 1956/57 to 48·1 million bushels in 1961/62, representing an increase of about 77 per cent in a period of six years. There were substantial gains thereafter when production rose from 45 million bushels in 1963 to 76 million bushels in 1970 and to 77 million bushels in 1973. In addition to this, there was also an increase in the average yield per acre and in the area under cultivation. Yields rose from 31·67 bushels per acre in 1956 to 38·72 bushels in 1964 and to 51·5 bushels in 1970. Between 1952/53 to 1962/63 the acreage under paddy increased by 329,968 acres to 1·20 million acres, and by 1974 nearly 2 million acres were under cultivation during the two cropping seasons. This was chiefly due to more land being brought under cultivation in the colonisation and development schemes in the dry zone.

The high yields in paddy were achieved by the increased use of fertilizer and the cultivation of superior hybrids. The government fertiliser subsidy scheme for paddy which has existed since 1951 has been instrumental in encouraging the use of fertiliser. A subsidy of 50 per cent was given to cultivators who purchased paddy from the Department of Agrarian Services. Furthermore, crop insurance was first introduced in the Maha season 1958/59 and these facilities have been gradually extended in the period thereafter. Improved techniques of cultivation have also contributed to higher levels of production. The introduction of extension services on a wide scale throughout the island resulted in the modernisation of agricultural techniques. Government budgetary support for agriculture and irrigation have progressively increased; between 1964/65 and 1972/73 these expenditures have more than doubled. The main thrust of agricultural development policies, since the sixties, have been increased self sufficiency in food, crop diversification, reduced dependence on a narrow range of export crops, the provision of more employment opportunities in agriculture and the general upliftment of the social and economic conditions in the villages.

The Guaranteed Price Scheme

For over 25 years a guaranteed price scheme has been in operation and paddy was the first major agricultural crop to be brought under the scheme. The introduction of a minimum price by government

helped to free the farmer from excessive dependence on a fluctuating market. The objective of the scheme was to encourage increased production by assuring the producer a guaranteed minimum price and to ease the stranglehold of the middleman. In February 1950, the Guaranteed Price was first fixed at Rs. 8/- per bushel. Since then the price has been successively raised from Rs. 9/- in 1961, to Rs. 12/- in 1962, to Rs. 14/- in 1968 and to Rs. 33/- in 1975. Although the Guaranteed Price Scheme has not always functioned satisfactorily, it has helped to raise the price of locally grown rice appreciably in the market. At many a time the farmer has not been able to enjoy the benefit of the Guaranteed Price and middlemen have procured the crop at lower prices because farmers have been indebted to the middleman or the village trader. Furthermore, the guaranteed price largely tends to benefit farmers who are able to produce a surplus over and above their consumption needs. Several other subsidiary crops have also been brought under the guaranteed price scheme. These include chillies, green gram, tamarind, pepper, onions, dhall, mustard, potatoes and kurakkan. Today there are over 30 items that fall into this category.

In domestic agriculture income transfers to the farmer have been affected mainly through the pricing of products. The main impact of the Guaranteed Price Scheme has been to considerably increase rural incomes and increase incentives for production. Even though the producer has not always been able to sell at the Guaranteed Price, the latter has tended to push up the free market price and market prices have remained for long periods above the minimum prices. This has indeed, helped to shift the terms of trade from the urban sector to the rural sector and given considerable prestige and importance to agriculture as a vocation. The latter is important, because before the fifties agriculture was looked down upon by the bulk of the population and a premium was placed on urban white collar work. Pricing policy by making agriculture viable has in a big way contributed to change these outdated attitudes.

Tenurial Reforms and Credit

Changes in income and the owenership of wealth have also been effected through tenurial reforms and the creation of institutions for the development of agriculture. For the first time in 1957, a Department of Agrarian Services was set up and its overall object was to promote food production and the stabilisation of farm incomes. It was also concerned with the development of minor irrigation works, the

supply of seed paddy to needy farmers and the control of pests and diseases in agricultural crops. Its most important area of activity was the implementation of tenurial reforms in domestic agriculture. The work and activity of this Department has progressively expanded and today its duties have been integrated with the Ministry of Agriculture to ensure that its impact may be more readily apparent in economic development in the rural sector.

The introduction of the Paddy Lands Act in 1958 constituted a significant land mark in rural rehabilitation and economic develop-ment. The system of tenure of paddy lands which prevailed before 1958 had been in operation in Sri Lanka from time imemorial. Of the total extent of paddy land nearly 400,000 acres had been cultivated by 300,000 tenant farmers. The system of tenancy that prevailed before was unsatisfactory because adequate incentives for cultivation were lacking in view of the fact that landlords ultimately received the bulk of the crop, very often even without bearing any part of the cost of production. The Paddy Lands Act gave security of tenure to tenant farmers. The Act has also to some extent, relieved indebtedness because farmers now enjoyed a bigger share of the crop, and were in a better position to repay their debts.

Government policy has also paid considerable attention to the development of supporting services by creating new financial institutions for rural agriculture. The first major step in this direction was taken with the establishment of the People's Bank in 1961, which was an important landmark in agricultural development policy. Since the inception, the Bank has been preoccupied with the development and expansion of credit for the rural sector. It has successfully launched several schemes to increase the supply of credit for agriculture. In 1964, the Bank launched its rural banking scheme with a view to extending banking services to the villages and to provide agriculturists with credit for production, consumption, housing and for the redemption of debts. In September 1967 the Bank inaugurated the New Agri-cultural Credit Scheme where central bank finance was channelled through the People's Bank and other commercial banks to the rural sector. The impact of all these credit schemes must be appraised in terms of the markedly improved performance of paddy production and other minor crops. The sharp increase in the output of paddy since the mid sixties is an index of the impact of the new institutional changes which were affected in the rural sector.

Minimum Wage Policy

Government income distribution strategies have also been put into operation through labour legislation and minimum wage machinery. Throughout the last two decades there has been a tendency for wage rate adjustments to take place, and minimum wages have been fixed in a large number of new trades. Today, there are some 32 Wages Boards representing vital areas of economic activity and covering a very substantial part of the working population. Some part of the steady rise in wages have been due to trade union pressures. Trades coming under Wages Boards have been able to get fringe benefits, which include risk allowances, superannuation benefits, subsidised travel, additional holidays and leave with pay, overtime and better terms of service. All these have helped to increase the earnings particularly of organised labour and those who have come under minimum wage determining machinery.

Most Wages Board fix daily rates of pay although a few like the baking, printing, ice and aerated waters have monthly wages. Minimum daily wages vary from Rs. 5.85 for male unskilled workers in the engineering, tea and rubber export trades to Rs. 3.90 in the baking trade and Rs. 2 80 for female workers in the cinnamon trade. Workers in Wages Boards trades represent the largest group of employees covered by minimum wage fixing machinery, and today their numbers exceed 900,000 of a total workforce of nearly 5 million, of whom approximately 600,000 are in the traditional tea, rubber and coconut growing and manufacturing industries. Thus appreciable changes in the minimum wage rates of those who are covered by Wages Boards automatically improve the well being of approximately one fifth of the total workforce. Remuneration Tribunals have been set up under the Shop and Office Employees Act for several trades which do not come under the Wages Boards. Employments covered by these Tribunals include hotel workers, employees in petrol filling stations, textile shops, pharmaceutical establishments and legal offices.

Many trades and occupations have been brought under minimum wage fixing machinery to ensure that the lowest rates of pay are raised to satisfactory levels. As a result, substandard wages today are virtually non existent; they are mainly prevalent in certain small trades where labour has not been organised. The table below gives the wage

rate indices of certain categories of employees coming under wages boards and shows the progressive increase in the minimum wage index over the years.

Table 4

Minimum Wage Rate Index Numbers of Workers in Wages Boards Trades
1952 = 100

Period	Workers in Agriculture(a)		Workers in Industry and Commerce(c)		Workers in Wages Boards Trades(d)	
	Minimum Wage Rate Index	Real Wage Rate Index(b)	Minimum Wage Rate Index	Real Wage Rate Index	Minimum Wage Rate Index	Real Wage Rate Index
1953	101 5	99·9	101·0	99·4	101·5	99·9
1954	103·1	102·0	100·7	99·6	102·5	101·4
1955	106·6	106·1	101·4	101·0	105·9	105·4
1956	107·1	106·9	102·9	102·7	106·4	106·2
1957	108·7	105·6	104·5	101·5	107·8	104·7
1958	110 2	105·2	116·1	110·9	110·8	105 6
1959	110·2	104·8	123·8	122·4	112·3	106·7
1960	110·2	106·5	128·1	123·8	111·8	108·0
1961	110·7	105·6	128·4	122·5	112·3	107·2
1962	111 9	105·2	129·5	121·8	113·6	106·9
1963	113·3	104·2	130·9	120·3	115·2	105·9
1964	116·0	103·5	132·8	118·4	117·8	105·0
1965	116·3	103 4	132·8	118·0	118·2	105·0
1966	116·2	103·5	133·2	118·6	118·1	105·1
1967	120·4	104·9	138·9	121·0	122·2	106·4
1968	138·8	114·3	161·6	133·1	141·2	116·3
1969	138·8	106·3	161·7	123·9	141·2	108·2
1970	140·2	101·5	166·1	120·2	142 9	103 4
1971	141 6	99 8	176·1	124·2	145·3	102·3
1972	148·5	98·4	181·4	120·3	156·9	100·7
1973	168·1	101·5	199·7	120 7	169·9	102·7
1974	210·0	113·0	235·8	126·9	212·5	114·3

Source: Department of Labour and
Central Bank of Ceylon.

Note: From Junuary 1953, indices of real wage rates are calculated by using the Colombo Consumers' Price Index.

(a) Prior to 1953, minimum wage rate index refers to wage rates of tea growing and manufacturing, rubber growing & manufacturing trades only: from 1953 it includes the coconut growing trade also

(b) Prior to 1953. index of real wage rates was calculated by using the cost of living index for estate labour.

(c) Includes coconut manufacturing, engineering, printing match manufacturing motor transport tea export, building dock, harbour and port transport, rubber export and cinema trades only.

(d) Combined Index for workers in agriculture & workers in industry and commerce.

In 1975, there were over 320,000 government employees and they have always fallen into the category of better paid workers. In wage rate adjustments in the government sector in the last few years, the emphasis has been on increasing wages of the lowest paid employees, mainly those who are in receipt of a salary of less than Rs. 800 per month, without effecting changes in the salaries of those who are drawing more than this. This policy has helped to redistribute incomes and to some extent, to insulate the lowest paid categories of workers against inflation. For workers in the private sector and corporations, an additional source of income has been the payment of a bonus. Most workers receiving the lowest scales of pay in firms and business establishments in the private sector and state corporations look upon the bonus as the thirteenth month wage. This has also been effective to some extent in raising the lowest incomes.

The growth and expansion of new manufacturing industry has had a dual effect on income distribution policy. Since 1960, over 2,500 new manufacturing industries have been set up in the private sector. These have provided employment directly for about 105,000 persons. On the other hand, industrial development has also tended to increase income and wealth disparities, to the extent that a new class of businessmen have come into existence who have benefited from the very attractive tax and other financial concessions. The wealth that these businessmen have been able to amass over a short period, have in many instances, exceeded the inherited wealth and resources of people who have been connected with the plantation economy for over a hundred years. From the point of view of diffusion of wealth, a characteristic of these industrial companies is that many of them are individually owned or are public companies with a limited number of shareholders. The growth of the industrial sector over the past fifteen years has resulted in the emergence of new class of entrepreneurs who have previously not been associated with business. A few of them have taken to manufacturing industry after being in the retail and wholesale trade for sometime. New industries have tended to increase the concentration of wealth in the hands of a few successful businessmen who have been able to extend their business activities because of restrictions on imports and the creation of a captive domestic market. Although more employment in new industry has promoted the diffusion of income, these incomes have mainly accrued to the urban working class. Until recently, industrialisation has had little

or no effect on the rural economy where the bulk of the people live. Successive central bank surveys have shown that more than 75 per cent of industries are concentrated in the urban areas around Colombo.

Welfare Expenditure

Direct subsidies have been the most effective method of redistributing income and also diffusing the results of economic growth to the lowest income receivers. Sri Lanka has had extensive subsidies on food distributed by government, mainly rice, and has provided free education and free health services over an unbroken period exceeding 30 years. Total expenditure on these welfare services has risen from Rs. 174 million in 1949/50 to Rs. 651 million in 1960/61 and to Rs. 1644 million in 1974.

The subsidy on rice originated in war time rationing and price control of essential goods. Rationing and the distribution of rice at government determined prices was introduced in February 1942. From this point onwards there has been a subsidy on rice. After independence government decided not only to carry on this policy but to increase the size of the subsidy in subsequent years. Rice distributed on the ration has had a large element of subsidy because the consumer pays a price which is far below the cost of either producing it locally or importing it.

From December 1966 government increased the scope and coverage of the subsidy by giving 1 lb. of rice free to every citizen of the country. This subsidy is now enjoyed by all categories of persons other than those who pay income tax. For the lowest income groups this amounts to a substantial addition to income and also assures the availability of rice on a weekly basis even to those who have no income because the first measure is available without payment. The subsidy on rice alone has increased from Rs. 39 million in 1949/50 to Rs. 246 million in 1960/61 and to Rs. 745 million in 1974.

Subsidised rice has appreciably contributed to greater equality in income distribution. This is evidenced in the findings of the Consumer Finance Survey of 1973 where monetary values have been assigned to free rice on the ration and other income in kind. A feature which is peculiar to Sri Lanka is that even though a person by definition is classified as unemployed and has therefore a zero income, in the real

sense he does not fall into this category, because he receives income in kind and furthermore, the resale of subsidised rice and rationed commodities in the open market provides him with an income. Subsidies have thus tended to soften the impact of increasing unemployment on the economy and virtually provided those without jobs an unemployment dole.

Another welfare commitment of the government has been free education. The latter has been available to all citizens without interruption since 1947. Expenditure on education has increased sharply and with the progressive increase in the school going population its total cost would soon outstrip the total outlays on the food subsidy. However, the progressive iucreases in current expenditure on education is an index of the benefits it has brought to the lower income catgories. The bulk of the students who have benefited from free education have come from the rural areas and from families that belong to the lowest income groups. Today, approximately 80 per cent of the university students are from the rural areas and more than 90 per cent of them would not have had the means to pay for a school and an university education.

Government expenditure on free medical care has helped to produce a healthy population and irradicate epidemic diseases to a large extent. It has brought down the death rate from 12·7 per cent in 1951 to 8·6 per cent in 1960 and to 7·6 per cent in 1974. There have also been very significant declines in the maternal and infant mortality rates, and the longevity of both males and females has risen appreciably. The present scheme of medical care has provided free medical attention at hospitals and clinics for people with means as well as those without an income. Unlike the other welfare services, expenditure on health has not been large, and the increases have been mainly due to a rise in capital rather than in recurrent expenditure.

Since the forties house rents have been virtually frozen and this has considerably helped to contain the living expenditure of the lower income groups. For more than thirty years the majority of houses have come under rent control. These controls have helped to redistribute income because house rent accruing to the propertied class have been held in check while the real incomes of tenants, who mostly fall into the lower income groups, have risen because rents have

not been geared to general price increases. The level of resulting benefits from rent restriction could be measured in terms of the general price level, which according to the Colombo Consumers' Price Index, has risen by approximately 200 per cent since the early forties. while rents have remained unchanged at the levels prevailing in the early forties.

Income transfers have also been achieved by keeping the prices of certain public services relatively stable over a long period of time. In the case of public transport, substantial changes in bus fares were affected only after 1973 when operating costs sharply escalated with the increase in the price of petroleum products. The Ceylon Transport Board which took over privately run bus services in 1958 continued to charge the same fares that were levied when these services were operated by private companies. If general price increases over the last two decades are taken into account, in real terms the bus fares that were levied before the last increase could only be represented in terms of negative figures. Before 1970 in the city of Colombo, the lowest fare for a journey of about half a mile was 5 cents, and it is difficult to think of any other country that has been able to provide public transportation for such a low fare. Similarly, the Ceylon Government Railway which has been a state enterprise from the very inception in the eighteen fifties has continued to be heavily subsidised by the state. Upto the early sixties only marginal revisions in the railway fares were made and more substantial increases were effected in the seventies. The extent of public subsidy to the railway is reflected in the losses incurred by the service that government has had to finance over a period of more than thirty years,

The social welfare policies which have been put into operation for over a period of thirty years have not been without certain costs. An increasingly large proportion of government financial resources has been diverted to consumption and welfare, with the result invest- ment has remained at low levels. The resources available for diversification of the economy and for investment in non traditional and export oriented industries have been limited. The resulting relatively low rates of economic growth has had its most unfavourable repercussions in the progressive rise in the level of unemployment which reached about 986,000[1] in 1975. Between 1970 and 1975

1. This figure is from the Land and Labour Utilisation Survey undertaken by the Central Bank in the 1st Quarter of 1975.

unemployment has increased by nearly 90 per cent. A diversion of more resources to investment and major structural changes in the economy are called for in view of increasing unemployment. The conflict in economic policy today is between further income distribution through welfare spending and the need to conserve and divert resources to generate higher levels of investment to accelerate economic growth. While it is true that welfare has improved living standards and produced man-power resources of high quality, on the other hand, excessive welfare expenditure has made the economy sluggish with the result that its capacity to absorb the very large numbers of the young educated youth who are now joining the workforce every year in increasing numbers has been considerably weakened.

Redistribution of Wealth

The diffusion of wealth has figured as an important component of economic policy in Sri Lanka because income from property has constituted a very large share of total income. Furthermore, property has been owned by a relatively small segment of the total population. When the first phase of the land reform programme was undertaken in 1972 only some 5,000 land owners in a population of 13 million were affected by the land ceiling. The latter is an index of the concentration of land ownership. The largest extent of agricultural land is under the three main plantation crops tea, rubber and coconut. In the rural areas, paddy lands are the most important form of wealth and about 33 per cent of these lands were cultivated by tenant farmers who did not own the land. This implies that the bulk of the paddy lands in the country is owned by cultivators, although the size of their plots is very small. The average holding is approximately ½ an acre.

The pattern of land ownership was largely the outcome of the economic arrangements which took shape during the British administration of the country from 1802 to 1947. In British times and even earlier, economic power and social standing arose largely from the ownership of land. For a long period land has been the most important form of wealth in Sri Lanka. Other forms of holding wealth in the form of industrial assets and fixtures, investment in buildings, capital equipment and money market investments have

become important only in the post-war period and more especially since the sixties. The plantation companies were the principal avenue for investments in the nineteen twenties and thirties. A great majority of these companies have had widely diffused shareholdings, either as sterling companies incorporated in the United Kindom, or rupee companies registered in Sri Lanka. Even so, on account of the prevailing pattern of income distribution the ownership of shares in the plantation companies tended to get concentrated in the hands of a few hundred wealthy families.

With the establishment of a number of new manufacturing industries since 1960. several public companies generally with a limited number of share holders have come into being. However, the bulk of the new industries are private companies where the controlling interests are in the hands of a few individuals and families. This gave permanence to a new class of businessmen who were able to wield some authority; and wealth and influence tended to shift to a new class of Ceylonese entrepreneur. Even thereafter, groups of individuals that continued to own large tracts of cultivated land still had considerable economic power in the country despite the fact that a good part of their holdings had gradually decreased either due to the increasing burden of taxation, alienation of lands to peasants, or to the subdivision of property among members of a family in the course of inheritance.

Land Reform

The concentration of economic power that arose from the owner-ship of land was weakened with the introduction of land reform in 1972. Land reform was found necessary to diffuse the ownership of land and property in order to provide the base for the further development of the country's agricultural economy. It was maintained that within the then existing pattern of land ownership the scope for diversification was indeed, somewhat limited. Since these lands continued to largely grow traditional crops a plan for the coordinated better use of land could come with some change in the arrangements relating to the management of these lands.

Of the measures taken by government the programme of land reform which commenced with the enactment of the Land Reform Law of 1972 is likely to have the greatest impact on the distribution of both income and wealth. Its far reaching effects on the redistribution of

income would be apparent only in the next decade. The Land Reform Law of 1972 stipulated a ceiling on agricultural land that could be owned by persons in Sri Lanka. The ceiling was 25 acres of paddy land or 50 acres of other agricultural land. After the 26th of August 1972, any land owned in excess of this ceiling was automatically vested in the Land Reform Commission. The total extent of agricultural land declared to the Commission was in the region of 1.2 million acres. Of the latter about 638,000 acres were under major crops – tea, rubber, coconut and paddy. Out of the declared total, the extent of land acquired by the Land Reform Commission under the Law was 559,377 acres. Of this, approximately one third represented uncultivated land, while tea land consisted of nearly one fourth, rubber about 15 per cent and coconut about 10 per cent of the area under cultivation of each of these crops. These lands which were taken over in 1972 were all land owned by individuals or by private companies; public companies were excluded.

The programme of land reform which commenced in 1972 reached a significant stage in 1975 with the take over of the estate sector which was mainly owned by public companies. The second phase of land reform came into operation with the enactment of the Land Reform (Amendment) Law of 1975 in October of the same year. The object of this law was to vest estate land owned or possessed by public companies in the Land Reform Commission. The total extent of land vested in the Commission under the 1975 Amendment was 417,957 acres, consisting of 237,592 acres of tea, 94,835 acres of rubber, 64,068 acres of coconut and 79,124 acres of other crops. With the coming into operation of this Law about 63 per cent of the country's tea lands and about 30 per cent of rubber land came to be vested in the government.

The first phase of the land reform in effect directly affected the incomes of the land owing class in the country. For a large number of those in the higher income brackets the plantations were either the main source or a supplementary source of income. Most of the estates were large properties of over 100 acres in extent. After the land reform the maximum income that a person could get from land was limited to the profits from 50 acres. The latter more or less tended to put a ceiling on the income that could be obtained from land.

However, the income from the 50 acre plots which individuals can own now could only be a relatively small fraction of the total income derived when they were entitled to much larger holdings.

The impact of the second phase of land reform in 1975, has affected incomes from plantation lands accruing to companies, families and individuals. As a result of this measure, individuals and families are no longer entitled to dividends and other profits that they enjoyed from holding shares in plantation companies. In fact, in Sri Lanka's context, with a very limited share market, the bulk of the shares that were issued and transacted by public companies were mainly in tea and rubber. Land reform has in other words, tended to completely eliminate the biggest component of the share market and wiped out more than 60 per cent of its transactions. It has also meant that supplementary sources of income for a large number of those who are in the higher income brackets have now completely dried up. Since compensation has not been paid so far for any of these lands that have been taken over, the immediate impact is for income from these sources to cease completely. This would at once result in a very sharp reduction in the income levels of the affluent classes in the country. The latter could only restore their levels of income once compensation has been paid depending on whether these monies could be directed to alternate investments which would produce the same level of earnings.

Another piece of legislation that tended to limit income and wealth was the ceiling on Housing Property Act. The passage of this Act in January 1973 imposed a ceiling on the ownership of all residential houses, depending on the size of the family. A family of two was entitled to own two houses with the provision that each child in the family would be entitled to an additional house.

State Entry into Business

More recent economic arrangements which have tended to diffuse the concentration of economic power has been the gradual entry of the state into certain vital areas of economic activity, which were previously entirely in the hands of the private sector. The wholesale and retail trade in Sri Lanka until the fifties was exclusively in the hands of a merchant class, some of whom happened to be non nationals. But latterly this concentration of wealth and economic power has been

considerably eroded with the increasing entry of the state into the import and export trade and in the distribution of consumer goods. At first, with the establishment of the Co-operative Wholesale Establishment in the fifties the latter made heavy inroads in the private wholesale and retail trade where it acquired a major share in a large number of consumer items. This was followed by several state trading corporations which have taken over specialised lines of imports such as textiles, hardware, miscellaneous goods, tractors and machinery. These new trading arrangements have tended to reduce incomes of the most affluent sections of the business community and weaken the wealth and economic power of a class that had enjoyed a virtual monopoly of business and trade. The establishment of large industries under state ownership as monopolies have also contributed to the greater diffusion of income and wealth. Most of the large scale state owned enterprises, especially in the field of industry, have been set up after 1960. Today, there are more than 25 large scale industries in the government sector of which more than 20 were established in the last fifteen years. These include steel, paper, petroleum refining, textiles, plywood, tyre, cement and hardware.

Furthermore, before 1955, vital services such as bus transportation handling of cargo in the ports and insurance were in the hands of private companies or individuals which tended to increase income disparities and the concentration of wealth. With the entry of the state into these services employment has sharply risen resulting in a wider diffusion of incomes. Moreover, workers have been given considerably better conditions of service and higher wages. But the major problem with state enterprises is that the majority of them have not operated in a viable manner although they have offered better terms and conditions of service to workers. This is because good management which has been the hallmark of the private companies is largely lacking in them.

Impact of External Influences

In recent times, the distribution of income and wealth has to some extent been influenced by the impact of overseas trade, foreign aid and foreign technological assistance on economic development. The effect of these factors on the redistribution of income has been relatively less significant than in the case of the measures directly taken by government which have been outlined already, These factors could have an influence on the redistribution of wealth and income

through the process of accelerating growth. However, because the present administrative and institutional arrangements have been weighted in favour of the lower income groups, higher national income accruing from economic development will largely flow into households with lower incomes. Moreover, the bulk of the government investment today is in the rural sector where incomes are low.

Unlike many other developing countries in Asia. Sri Lanka does not fall into the category where foreign investment and capital have played a major role in development in the sixties and seventies. In fact, it is noteworthy that even in the earlier period the level of foreign investment has been minimal. The bulk of the foreign investment took place in the period before the thirties when expatriate interests made investments not only in the plantations but also in the services which were directly associated with the plantation industry. One reason for the limited flow of investment into Sri Lanka in the postwar period has been the non availability of opportunities in the highly profitable areas of mining and extraction and the fact that for the establishment of manufacturing industry more advantageous locations in Asia were available to the investor. In Sri Lanka furthermore, increasing trade restrictions, the intensification of exchange control and the proliferation of balance of payments and foreign exchange difficulties, particularly after 1960, had a patently unfavourable influence on the foreign investment climate. However, after the late sixties the climate began to get even more adverse partly because of the increasing severity of the restrictive system and partly due to the fact that for all these reasons foreign investors were losing confidence in Sri Lanka. The lack of adequate investment guarantees and uncertainty which arose from economic policies which were not directly beneficial to the investor, were important factors.

Despite this, Sri Lanka has continued to depend heavily on external financial resources. From 1964 onwards, with the rapid deterioration of the balance of payments and the resulting acute shortage of foreign exchange, the country had to seek all possible avenues of getting additional external resources to finance balance of payments deficits and to continue with its welfare and development programs. Foreign asistance from sources such as the I M.F. the aid consortium countries, international lending institutions like the World Bank, the Asian Development Bank and from banking and money

market sources abroad have enabled the country to sustain a basic minimum level of imports. These imports have been not only foodstuffs, but also included capital equipment and raw materials for industry. In so far as aid has contributed to sustain a certain minimum level of imports it has made it possible for the administration to continue with the welfare schemes which have been the major mechanism for the reduction of income disparities.

Since the country has not been able to produce adequate food, particularly rice, sugar and subsidiary foodstuffs government's attention has been continually focused on achieving a minimum level of food imports so as to ensure that the quantities of food offered on the ration are maintained and that nutritional levels do not fall. An increasing proportion of the foreign credits, aid and external resources have been utilised to maintain imports of essential consumer goods particularly rice and sugar which are rationed. Some essential consumer commodities, particularly rice flour and sugar have been made available to the public either free or at highly subsidised rates. To put it differently, the principal impact of external aid, particularly short and medium term credits, has been to assist the continuance of welfare policies and to maintain income tranfers to the lower income categories. The income received by the lower income groups would have no meaning if they could not procure essential goods particularly foodstuffs and that also at government regulated prices. Inflows of aid have helped to maintain these essential imports and finally ensured their availability to the consumer at government regulated prices.

The Table 5 shows the extent to which foreign aid has been utilised to maintain imports of food and industrial raw materials.

This fact is brought to light when the quantum of food imports on aid is examined in relation to the size of the balance of payments deficits for each of the years indicated in Table 5. One thing which becomes quite clear is that had the country been able to attain early self sufficiency in imports of two major food items, particularly rice and sugar which take up the bulk of the food import bill, the foreign exchange savings would have been adequate to wipe out the current account deficit, because this would have on the average represented savings of about Rs. 1,000 million. On the other hand, in recent years, particularly in 1975 more than 70 per cent of the country's

Table 5

Aid Utilised for Imports of Essential Foodstuffs & Raw Materials
(Annual Total Values)

(Rs. Million)

		1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975
Rice1	Loans	—	—	—	—	—	48·9	24·6	20·4	—	85·4	—
	Grants	—	—	—	—	—	—	—	2·0	—	90·2	—
	Total	6·9	—	—	—	—	48·9	24·6	22·4	—	175·6	—
Flour1	Loans	6·9	15·7	25·9	64·8	110·5	33·8	44·3	112·7	45·9	34·4	152·3
	Grants	—	13·5	3·5	39·0	26·8	54·7	52·1	31·3	58·1	85·3	293·3
	Total	6·9	29·2	29·4	103·8	137·3	88·5	96·4	144·0	104·0	119·7	445·6
Sugar1	Loans	—	—	—	—	—	—	0·1	0·1	0·2	18·9	32·7
	Grants	—	—	—	—	—	—	—	—	—	—	—
	Total	—	—	—	—	—	—	0·1	0·1	0·2	18·9	32·7
Other Foodstuff1	Loans	—	1·9	4·4	3·2	—	—	11·7	13·7	4·3	15·1	37·9
	Grants	—	—	—	—	—	—	—	—	—	—	—
	Total	—	1·9	4·4	3·2	—	—	11·7	13·7	4·3	15·1	37·9
Industrial Raw Materials1	Loans	—	14·0	47·9	29·9	6·8	11·5	23·4	33·8	21·4	56·3	102·8
	Grants	—	—	—	—	—	—	0·8	1·7	11·6	5·3	15·1
	Total	—	14·0	47·9	29·9	6·8	11·5	24·2	35·0	33·0	61·6	117·9
Total outlay on food imports2		*	798·4	822·8	1,008·0	909·7	1,083·1	846·9	730·3	1,063·9	1,573·2	1,876·6
Balance of trade3		- 13	-344	-335	-380	-746	-316	-287	-255	-298	-1263	-1421
Payments deficit (total current account3)		+ 59	-290	-288	-355	-797	-350	-216	-196	-161	-907	-772

* Data not available
1. Source: Economic Indicators published by the Ministry of Planning & Economic Affairs
2. Source: 1965-1969 Annual Report Table B Page 198, 1970-1975 Balance of Payments
3. Source: Annual Report of the Central Bank

requirements of flour have been on foreign credits or grants.   Imports of flour could be considerably reduced if domestic rice production is increased.   For instance, due to a poor paddy harvest in 1975 flour imports had to be sharply stepped up.

Of the items listed in the above table, one pound of rice per person is given free to all non income tax payers excluding infants and more than 60 per cent of the requirements to provide this and an additional two pounds at cost are met out of imports, because rice procurement by the Paddy Marketing Board has fallen.   In addition three quarter pound of sugar is issued every month to consumers at a price which is far below cost.   These two items alone are effective in making substantial income transfers to the lower income groups. In 1974 the subsidy on rice was Rs. 745 million, on flour Rs. 148 million and on sugar Rs. 26 million.   Table 6 gives details of the major food items that were subsidised in the last three years.   Of these 30 per cent of the rice is imported, 100 per cent of the flour and about 65 per cent of the sugar.   Infant milk and lentils are all imported items.

Table 6

Food Subsidy 1973 to 1975

Items	1973	1974	1975
FOOD SUBSIDY ..	700·8	952·1	1,092·2
1. Losses on sale of foodstuffs	675·0	919·7	1,086·7
(a) Rice	564·0	745·1	1,001·5
of which distribution expenses and other charges	(41·8)	(66·0)	(97·5)
(b) Flour	111·0	148·1	—
of which distribution expenses and other charges	(28 7)	(27·1)	(—)
(c) Sugar	—	29·5	85·2
2. Subsidy on Infant Milk and Lentils	25·9	34·6	6·0
(a) Infant Milk	4·0	8·5	6·0
(h) Lentils	21·9	26·1	—

Sources: Food Commissioner, Treasury.

Table 5 shows that more recently increasing amounts of imports of rice, flour and sugar have been sustained by foreign credits and donations.

The bulk of the employees in new manufacturing industry and in the traditional plantation sector are those who are generally in receipt of incomes of less than Rs. 300 per month. The availability of foreign credits for the import of raw materials have in an appreciable manner helped to sustain activity in the industrial sector and enabled several new manufacturing industries to be set up, which in turn has provided more employment opportunities. For instance, in 1975 approximately 25 per cent of the raw material requirements of industry were financed by aid.

Other than the kind of aid listed in table 5 the bulk of the remaining foreign assistance falls into the category of project aid. The latter category has been a relatively small component of total foreign aid. Project aid has come from institutions like the World Bank, the International Development Agency and the Asian Development Bank. The inflow of medium term and long term foreign aid particularly from international organisations have enabled the country to undertake many major development projects which have contributed to raise incomes and living standards in the rural economy. These have included large irrigation and river valley development schemes and the opening up of new land for agriculture. A good example is the Mahaweli multipurpose river valley development scheme where the first phase of part one of the project has just been completed. Although the immediate benefits from these large scale projects may be marginal, ultimately foreign aid is likely to have a fairly significant and long standing influence on improving employment and rural income prospects in the most thickly populated agricultural regions, particularly in the dry zone where in the past the major factor acting as a setback to cultivation has been the acute shortage of water.

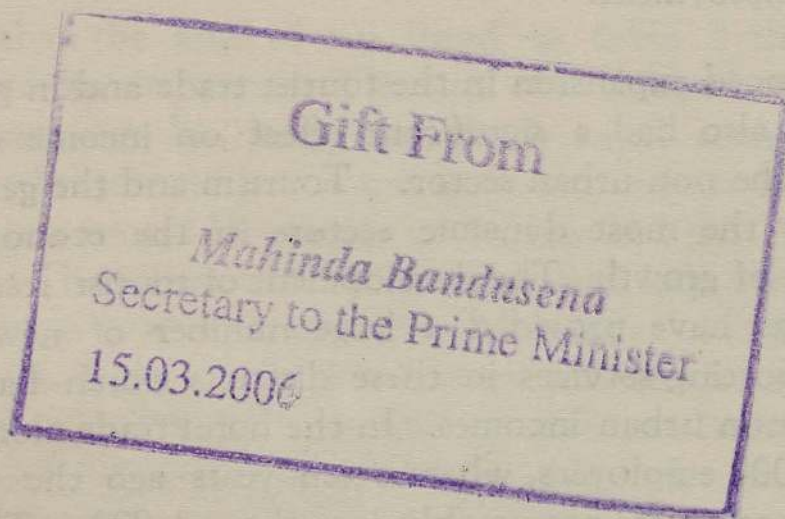### The Influence of Trade on Income Distribution

Apart from aid and external sources of financing. Sri Lanka's trade has made a mixed contribution to income distribution, particularly in the last decade. Sri Lanka is heavily foreign trade oriented and the direction and the quantum of trade has had a significant impact on income distribution. An adverse impact of trade

on income distribution has been the progressive deterioration in the terms of trade which has tended to depress real incomes. Sri Lanka's terms of trade have seen continuing deterioration from 1966 onwards; the declines in the seventies have been very steep. For instance, the terms of trade which was at 58 in 1974 fell sharply by 20 per cent to 46 in 1975. On the other hand, the diversification of exports as a result of a concerted export promotion drive in recent years has provided new employment opportunities in export oriented industries. The increase in exports of certain industries, particularly in textiles and garments, footwear and leathergoods and foodstuffs and beverages have promoted greater capacity utilisation in these industries and enabled them to pay higher wages and improve the terms and conditions of employment.

A pronounced expansion in the tourist trade and in gem exports since 1972 have also had a significant effect on income distribution particularly in the non urban sector. Tourism and the gem trade are today probably the most dynamic sectors in the economy, with a substantial rate of growth. The development of tourist resorts outside the urban areas have provided a large number of new jobs and stimulated supporting services in these districts which have in turn helped to raise non urban incomes. In the hotel trade alone there are today over 13,000 employees, whereas ten years ago the number of employees in hotels were presumably less than 2,000. The tax and other incentives given to the gem export trade have resulted in a sharp increase in both production and exports. It is estimated that today there are over 75,000 persons either directly employed in gem mining or are working in ancillary trades and services. Apart from this, gem mining has given the opportunity to people in the rural areas to venture into prospecting. Although this could be associated with a certain element of risk yet invariably it could bring in windfall incomes.

In Sri Lanka the effective redistribution of income and a substantial decrease in inequality has taken place primarily because this is today a major objective of government policy. However, the way was paved for such a strategy by the welfare expenditures on subsidised food, education and medical care which were at first introduced without any egalitarian objectives in view. In fact, these continue to be the principal instruments for reducing income inequality although even more direct measures such as the ceilings on house property and

the ownership of land that were introduced within the last three years, should have a significant influence on income and wealth distribution within the next decade. The principal contribution of foreign aid has been to help government to maintain its programme of social welfare by enabling it to ensure supplies of food and other essential imports and to find resources for development. Direct foreign investment has had only a very minimal role in contributing to growth. More important has been credits from international lending agencies. The diversification of trade and exports have in the last three years made a significant contribution to the diffusion of incomes.