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Folder 2 of 8

Folder 2

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UNDP - CEYLON

6. STATUS OF COUNTRY PROJECTS

EXCLUDING PROJECTS COMPLETED THROUGH DECEMBER 1970

| Symbol | Country and project | Agency | Approved by Governing Council | Project duration | Governing Council earmarkings | Plan of Operation signed | Authorization to commence execution |
|--------|---|--------|-------------------------------|------------------|-------------------------------|--------------------------|-------------------------------------|
| CEY 10 | CEYLON Ceylon College of Technology | UNESCO | June 1965 | 6 | 1,724,800 | 11 March 66 | 16 March 66 |
| CEY 11 | Institute of Surveying and Mapping, Diyatalawa | UN | June 1966 | 4 | 743,900 ^{4/} | 15 Feb. 67 | 21 Feb. 67 |
| CEY 12 | Management Development and Productivity Centre, Colombo | ILO | Jan. 1967 | 5 | 823,400 | 15 Feb. 68 | 20 Feb. 68 |
| CEY 13 | National Economic Programming and Planning | UN | Jan. 1968 | 5 | 1,942,100 | 16 July 69 | 7 Aug. 69 |
| CEY 16 | Public Water Supply, Drainage and Sewerage for the Southwest Coastal Area | WHO | June 1968 | 3 | 1,462,400 | 27 March 69 | 26 May 69 (July 71)* |
| CEY 14 | Agrarian Research and Training Institute, Peradeniya | FAO | Jan. 1969 | 5 | 882,600 | 29 Dec. 70 | 15 Jan. 71 |
| CEY 21 | National Vocational Training Scheme | ILO | Jan. 1970 | 2½ | 659,200 | 7 Aug. 70 | 25 March 71 |
| CEY 22 | Agricultural Diversification of Tea and Rubber Growing Areas | FAO | Jan. 1970 | 5 | 1,259,400 | 8 July 71 | 30 July 71 |
| CEY 27 | The Telecommunication Training School, Colombo | ITU | Jan. 1971 | 2½ | 350,300 | | |
| CEY 26 | Pilot Demonstration and Training Plant for Block Rubber Based on Smallholders' Latex, Manawella | FAO | June 1971 | 3 | 449,000 | | (June 71) ^{1/} |

Note: See page 14.

* Field work completed.

- 1/ Project operations started through a partial allocation, issued prior to official authorization to commence execution.
- 2/ Includes supplementary earmarkings of \$362,000 approved by the Governing Council at its June 1968 session.
- 3/ Project operations started through a partial allocation, issued prior to project approval by the Governing Council, under "preliminary operations arrangements".
- 4/ Includes supplementary earmarkings of \$127,100 approved by the Governing Council at its June 1971 session.

Note: See page 14.

- 1/ Project operations started through a partial allocation, issued prior to official authorization to commence execution.
- 2/ Includes supplementary earmarkings of \$779,400 approved by the Governing Council at its January 1971 session.

1/

A NOTE ON CEYLON AGRICULTURE

Ceylon faces exceedingly severe problems in agriculture. Until these are solved, the balance of payments constraint will prevent the national economy from growing at a rate sufficient to produce satisfactory uptrends in income and employment in the face of a rapidly growing population (2.4% per year). There is ample development potential in the sector, but present plans to bring this to fruition rapidly and efficiently appear inadequate for this task.

RECENT PERFORMANCE

It is useful to look at Ceylon agriculture under its two major categories. The first is the relatively modern tree crop or export sector; the second is the peasant food crop and livestock part, including forestry and fisheries. (Taken together, these sub-sectors produce 90 percent of export earnings, employ over half of the labor force, and account for 35 percent of gross domestic product. Much of the economic activity of other sectors is concerned with marketing raw materials from farms and providing inputs for agriculture.)

The export sector (tea, rubber, coconuts, and other minor tree crops) now accounts for about 40 percent of the total value of agricultural production (including fisheries and forestry), for nearly 60 percent of the total crop area, and for about 50 percent of total employment in agriculture. Tree crops are grown mainly in the wet zone, the southwestern one-fourth of the island where about two-thirds of Ceylon's farm people live, and where land rises to an elevation of over 5,000 feet.

Among export crops, only rubber showed a sharp change in yield and output in the 1960-70 period. The growth rates are:

| | <u>Tea</u> | <u>Rubber</u> (percent per annum) | <u>Coconut</u> ^{2/} |
|---------|------------|--------------------------------------|------------------------------|
| Acreage | 0.2 | -1.8 | 0.5 |
| Yield | 0.9 | 6.6 | n.a. |
| Output | 1.1 | 4.8 | -0.1 |

1/ This note outlines the more important judgments of the agricultural sector survey mission which visited Ceylon from September 10 to November 5, 1971. A full report is being prepared for discussion within the Bank and with the Government of Ceylon.

2/ Data are not reliable.

Rubber yields increased greatly as newly planted and replanted areas came into production. Approximately 300,000 of the 500,000 acres considered suitable for rubber have been planted with high-yielding clones.

Although export volume has been sustained in recent years, the price trend for the main exports has been downward. Foreign merchandise earnings showed a resulting downtrend in the 1960-1970 period. The data are:

| | 1960 | 1970 |
|------------------|-------------------|------|
| | (in US\$ million) | |
| Tea | 230 | 188 |
| Rubber | 79 | 74 |
| Coconut Products | 29 | 40 |
| Other | 25 | 33 |
| Total | 364 | 335 |

Turning to the food sector, food crops are produced almost entirely on small farms, which average a little over 1 acre of cultivated land. These food crops account for 40 percent of total agricultural output, about 40 percent of the land under cultivation, and about 44 percent of total employment in agriculture. While food crops and livestock products are also produced in the wet zone, the northern and eastern three-fourths of the island which make up the dry zone, account for over 70 percent of total food crop production (although only about 10 percent of its area is under cultivation).

Livestock production is scattered throughout the island, mainly in small farm units. Some cattle and milk are produced on land in coconut and tea estates, and there are a few specialized dairy and poultry farms near large cities. Livestock products account for about 7 percent of total agricultural output. Fish account for 6 percent.

Rice is the main crop grown for domestic use. Output increased sharply in recent years--from 602,000 tons of paddy in 1960 to 1,084,000 tons in 1970; paddy yields went up at an annual rate of 3.6 percent. Nonetheless, rice imports continued at slightly more than 500,000 tons per year during this period, and wheat imports more than doubled (they were 369,000 tons in 1970). On balance, Ceylon made little progress toward self-sufficiency in cereals during the decade, and the nation became even more dependent than previously on imported supplies of pulses and grams. The output of livestock products showed little change in the decade, and livestock numbers fell. Onions and chillies continue to be imported. Fish production went up by more than 100 percent in the 1960-70 decade, but more fish was imported in 1970 than in 1960.

The use of nitrogenous fertilizer went up at a rate of eight percent per annum during the 1960's. This was by far the most impressive aspect of technical modernization in the period, even though farmers were assured of firm prices and liberal subsidies (see below). Widespread use of new high-yielding varieties developed in Ceylon also contributed to the growth in yields of rice.

CREDIT AND PRICES

The overall performance of agriculture during the 1960's resulted in an output growth rate on the order of 3 percent per year - a figure which contrasts sharply with the target of 4.9 percent for the 1972-76 Plan period. As noted below, some of the explanation for this performance may lie in the area of public policy.

Institutional credit programs for farmers have not operated effectively in Ceylon. Defaults in making repayments have been numerous. During the years from 1947-48 to 1969-70 only 76 percent of the Rs. 322,754,000 loaned through the Agrarian Services Department was repaid. However, in 1972 it will be compulsory to market all rice through the cooperatives and this is expected to reduce defaults.

The volume of institutional credit increased rapidly after 1962, but it has declined in the last few years. Lack of credit for use in purchasing fertilizer is one reason given for the decline in rice production in 1971. Institutional credit accounts for 20 to 25 percent of all rural credit, including credit for consumption as well as for production. Available data indicate about two-thirds of all credit is borrowed at a rate of interest less than 10 percent, 27 percent at 11 to 50 percent, and the remaining 6 percent at higher rates.

The Government has operated a number of credit schemes to encourage the adoption of new technology. The present short-term credit system for paddy, other field crops, and minor export crops was started in 1967 when all farmers were made eligible, irrespective of previous defaults. The volume of lending increased and then declined again when repayments declined. Initially, repayment was facilitated by confiscation of rice ration books from those delinquent in making repayments, but this practice has been discontinued.

Ceylon has a Guaranteed Price Scheme (GPS) which assures farmers of relatively high prices for most farm products. Producer prices in 1970 and GPS prices, compared with world market prices for major products, are as follows:

| | <u>Producer price in 1970</u> (Rs) | <u>GPS price</u> (Rs) | <u>World market price</u> ^{1/} (Rs) |
|------------------|---------------------------------------|--------------------------|---|
| Paddy (bu.) | 14.80 | 14.00 | 10.90 |
| Chillies (cwt) | 325.53 | 392.00 | 104.00 |
| Onions (cwt) | 30.77 | 44.80 | 20.00 |
| Groundnuts (cwt) | 50.64 | 49.28 | 46.83 |
| Maize (cwt) | 24.86 | 24.64 | 16.44 |
| Sorghum (cwt) | 24.64 | 20.16 | 16.74 |
| Cowpeas (cwt) | 30.80 | 56.00 | 45.00 |

^{1/} At the official exchange rate.

The Department of Agrarian Services, operating through cooperatives, provides markets for farm products at the support levels. Prices also are controlled at retail levels. ^{1/}

Prices of farm products generally are favorable enough to provide incentives for farmers to expand output. They are much higher than the typical estimates of unit costs using the best technology available. Imports of onions, potatoes, chillies and pulses have just been banned in order to raise prices and encourage domestic production. Prices to farmers could also be raised through improved marketing, particularly for rice.

The apparent contradiction between the existence of high prices and a relatively sluggish performance by the sector has not yet been fully analyzed, but this would seem to imply that factors other than price/cost incentives may be particularly critical, e.g., inadequate extension service, poor distribution of inputs, poor coordination of programs. An exception to this may be rice production, which did respond to favorable incentives in recent years.

DEVELOPMENT RESOURCES AND PLANS

Ceylon agriculture has available to it an abundant supply of labor. The land constraint can be eased by increasing the efficiency of use of existing irrigation facilities, and by developing the considerable acreage of new land waiting to be brought into both rainfed and irrigated cultivation. In addition, large gains in output can be obtained by pushing technical modernization to its economic limit.

The national labor force is increasing at about 2.5 percent a year. Agriculture's share of total labor force has declined slowly in the last decade, but this share cannot be expected to decline much further over the next decade. The labor force available for employment in agriculture is likely to increase at least 2 percent a year. (As noted below, the growth rate in agricultural employment will need to be even greater to reduce unemployment in rural areas).

The targets in development policy must include the small farm. About 80 percent of the area in agriculture is held in units under 10 acres in size. Small holdings dominate the food sector, and they are also important for export crops. Tea holdings of 10 acres or less account for 18 percent of the tea area and 10 percent of tea output. Coconut holdings of 5 acres or less account for 35 percent of the area in coconuts.

^{1/} They are also subsidized. Gross subsidies on food procurement and distribution in 1970-71 approximated 689 million rupees. After deducting profits on public management of imports of sugar, wheat flour and other foods, the net subsidy was 528 million rupees. This is equivalent to about 14% of the contribution of agriculture to GDP in 1970.

As noted above, Ceylon's development plan for 1972-76 calls for an annual increase in total agricultural output of 4.9 percent a year. The growth rates planned for nearly all products are much higher than those achieved since 1955. To diversify agricultural production, very large increases are projected for sugar, chillies, onions, pulses, pineapples, passion fruit, cashew, groundnuts, sorghum and other minor crops. If these increases are achieved, Ceylon would become self-sufficient in rice and onions and nearly so in dried chillies and maize, but still would need to import large quantities of pulses, dried fish, wheat flour, sugar, and other foods. Imports of fertilizer, agro-chemicals and other production inputs also would need to increase. The plan envisages an annual capital investment in agriculture of Rs. 340 million, about 20 percent of the total investment for all purposes. ^{1/} This compares with investment levels of Rs. 256 million in 1969-70 and Rs. 307 million in 1970-71. The Plan also calls for irrigation to be improved on 197,000 acres of presently cultivated land, and 200,000 acres of newly developed land to be irrigated.

The large supply of labor and the limited amount of land suggest that tea and rubber should be stressed in development policy, insofar as market conditions permit. Each has a high output value per acre, and each requires large inputs of labor. Moreover, most land devoted to these crops is not suitable for growing food. In the case of coconuts, however, the value of output per acre is very low. Nevertheless, the crop is important for exports, and there are potentials for increasing yields. Coconut groves can also be grazed to increase the net return.

Ceylon's share of world exports of tea declined from 40 percent in 1965 to 36 percent in 1970. World tea imports are likely to increase about 2 percent a year in the 1970's, or about the same as in the 1960's. Exports of competing countries are expected to rise more than 2 percent annually in the next decade. Consequently, Ceylon could increase its exports 1.5 to 1.8 percent a year at prices averaging close to those in recent years. The 1976 production target of 550 million pounds can be achieved if yields rise as expected from recent plantings of high yielding vegetatively propagated (VP) clonal varieties, and if yields on old tea lands are maintained by using sufficient fertilizer and following other improved cultural practices. It will be necessary to replant first with new varieties those areas where yields are very low, and keep in tea production those areas where yields are high. Replanting with VP varieties can thus reduce unit costs and release land for other uses.

Replanting and new plantings with VP varieties have averaged between 5,000 and 7,000 acres annually since 1967. However, if Ceylon is to produce enough tea to expand exports by 1.5 to 1.8 percent annually, the replanting rate will need to increase from the 10,000 acres planned annually for 1972-75 to 12,000 acres annually during 1976-80, and to 15,000 acres annually during the 1980's. Not much tea land can be released for other uses until after 1980. However, during the 1980's, when large areas of VP plantings come into production, nearly 200,000 acres will become available for other uses.

^{1/} Of this, about 57 percent is from public sources.

Many tea factories in Ceylon are old and need to be modernized in order to maintain and improve quality. Also, as production expands, factories will need to be expanded or new ones established. A Factory Development Subsidy Scheme has been put into effect with assistance of the Asian Development Bank, but modernization of tea factories needs to move ahead more rapidly.

Concerning rubber, the 1976 target of 400 million pounds appears conservative. Rubber production could increase at the rate of 4 percent a year during the Plan period, and thereafter if replanting continues to take place.

About 305,000 acres of the 500,000 acres considered suitable for rubber have been replanted in recent years. The remaining 195,000 acres need to be replanted by 1985 if a 33-year cycle, with 15,000 acres replanted each year, is to be achieved. Replantings with new modern clones yield up to 2,000 pounds per acre in the seventh year of tapping, compared with only about 1,000 pounds for old mixed plantings. Although larger inputs of fertilizer and labor are required to achieve the higher yields, unit costs of production decline greatly.

Ceylon's share of world rubber exports is only 5.5 percent. World consumption is expected to increase 6 percent annually in the 1970's. World production also may rise 6 percent annually, so export price prospects are not bright. However, Ceylon has little alternative use for the land and labor now used to produce rubber. Under the circumstances, improved processing facilities could play an important role in helping to raise quality in what promises to be a highly competitive world market.

For coconuts, the 1976 target of 3 billion units appears optimistic. There has been little growth in production in recent years. Because the 1.2 million acres in coconuts have a very low value of output per acre and provide little employment, they need to be used more intensively. Coconut yields could be increased greatly by wider use of fertilizer and by replanting with new high-yielding seedlings. Fertilizer is now offered to farmers for coconuts at 50 percent of cost, but application rates have declined in the last two years. Coconut seedlings also are subsidized. There is potential for inter-cropping and grazing much of the land now in coconut production, however, thereby increasing value of output per acre.

The target growth rate for rice in the 1972-76 Plan period is about 7 percent a year. This is a defensible goal but to attain it will require that sufficient fertilizer, agro-chemicals, and other capital inputs are available, along with enough credit on reasonable terms to finance purchases of these inputs. More effective use of irrigation is essential so that two crops can be grown each year. A better extension system is also needed. The outlook in each of these areas is improving. Farmer cooperatives have been reorganized into 372 multi-purpose organizations for providing these services to farmers. Improved varieties of rice are available and there are no technical constraints on greatly increasing rice yields.

Fertilizer for rice is subsidized by 50 percent. However, fertilizer distribution costs are high, with the result that subsidized fertilizer prices average almost as high as CIF import prices at Colombo. Nonetheless, prices paid by farmers for fertilizer are still economical enough to encourage use, when compared with prices received for rice.

It is expected that marketing of all rice through a newly established Paddy Marketing Board will be compulsory beginning this year. Farmers will be required to market their rice through cooperatives which act as agents of the Board. Farmers will receive Rs. 14 per bushel for paddy, the price at which it has been supported for several years.

Costs of marketing and milling rice are high. There is much scope for improving the quality of milled rice by modernizing milling facilities and trading on the basis of grades. It is anticipated that a Rice Processing Development Center to improve rice handling and milling will be established with assistance from the UNDP.

Production targets for chillies and onions appear high. However, land is not a constraint (they require little land) and there are few technical problems retarding output expansion. The pulse target is also high, and it is difficult to grow some of the types of pulses which are customarily imported. Producer prices of these crops are supported under The Guaranteed Price Plan. Imports of onions and most pulses are now banned and producer prices have increased greatly.

The large increases planned for groundnuts, soybeans, cotton, maize and sorghum will be difficult to achieve in the five years ahead, although there is potential for expanding the acreages of these crops in the dry zone and also on newly irrigated land.

The sugar production target for 1976 is 50,000 tons, but is unlikely to be attained. Even if achieved, Ceylon would need to import 85 percent of its total requirements. The production targets for milk and meat are high, taking into account the decline in numbers of cattle, buffalo and pigs in recent years. Breeding herds now need to be increased. Expansion in poultry and egg production is dependent on increasing the imports of feed.

KEY ISSUES

The 1972-76 Plan for agriculture raises a number of basic issues. A fundamental one is whether the output targets are realistic and, if not, whether they should be adjusted downward to assure that the managers of the economy will not be faced with shortfalls and a call for costly emergency measures a few years hence. The second and related issue in the Plan is the amount of emphasis which the Government should place on expanding production of new and comparatively minor crops such as cotton, cashew, soybeans and mulberry. The production targets for

these crops seem overly optimistic, and their likely contribution to an easing of the foreign exchange situation is small compared to that of the traditional crops. The latter need more support than they are now scheduled to receive.

A third issue in agricultural policy concerns prices and taxes. Export taxes and duties amount to about 20 percent of the total value of tree crop output and reduce the incentive to invest and expand. The fear they will become prohibitively high, along with the fear of nationalization of the estates, creates further uncertainty concerning financial returns from investments for replanting tea and rubber. This clearly discourages replanting. A more secure investment climate is needed. Currently, replanting is limited to that carried out under subsidy programs.

The price of rice and other food crops is another basic issue. If the official exchange rate is used, producer prices would range from 40 to 100 percent above import prices. While adequate incentives for expanding output are essential, the prices for crops when production is being expanded in order to substitute for imports and meet consumption requirements are in danger of becoming so high as to distort resource allocation and prejudice the growth in supply of the traditional export products.

Another issue concerns credit and subsidies. Ceylon needs to give consideration to a wider use of credit, and a more limited use of subsidies, as means to achieve changes in resource use and raise agricultural productivity. As mentioned earlier, fertilizer prices to farmers have been subsidized by 50 percent for use on rice, coconuts, and some other crops. Similarly, tractors and other farm machinery services have been made available through governmental agencies at prices which do not cover costs. As noted above, subsidies have also been widely used to cover a large part of the costs for replanting tea and rubber and for improving processing facilities. There do not appear to be good reasons for subsidizing the use of fertilizer for one crop and not for another, or even for any subsidy at all. Farmers now are generally well informed about the economy of fertilizer use, and the production response from fertilizer use is large and its use profitable.

Farmers need more credit at reasonable terms, especially to expand livestock production. Too often farmers have viewed credit as another form of subsidy, and defaults in repaying loans have been numerous. However, these problems can be overcome through better administration and education, provided the cooperative system can be made to work. This system, recently reorganized, is charged with providing farmers with credit, supplies and marketing services. If the cooperatives cannot do the job, alternatives would need to be mobilized, including the private sector.

The same type of problem arises in maintaining and improving irrigation and drainage systems. There is much scope for conserving water during the MAHA (wet) crop season, and making more water available for irrigation during the YALA (dry) season. Cultivation committees and other local organizations have this responsibility.

Another issue of importance concerns irrigation and land development. There is a significant potential for expanding production in the dry zone by rehabilitating old irrigation structures. There is also large potential for bringing rainfed land in this area into use for livestock grazing and possibly also for crops. These are high priority outlets for scarce capital. In contrast, large-scale irrigation projects requiring large capital investments and long gestation periods should be given lower priority.

Plans for land and water development and for technological modernization must take into account the abundant supply of workers and the scarcity of capital available to agriculture. It will be desirable, for example, to raise more cattle and buffalo for use as draft animals, especially in the dry zone where the area under cultivation can be increased. Even under the best of circumstances, it will be hard to produce enough jobs at acceptable wage rates. This is not a problem which can be solved by the agricultural sector alone.

Specific clarification of intent on nationalization of tree crop estates and redistribution of other lands is another issue in urgent need of attention in order to reduce uncertainty and encourage investment in land and water development.

Policy-oriented research and preinvestment study should be undertaken at the earliest practical date with the following areas of inquiry given highest priority:

- (1) Tea replanting to increase yields and improve profitability.
- (2) The speed-up of rubber replanting, and use of yield stimulants and fertilizer for several years prior to replanting.
- (3) Measures to rehabilitate, replant, and intercrop coconut.
- (4) Measures to develop livestock for dairy production in the mid- and high-country tea areas, and in selected coconut zones.
- (5) Rehabilitation of existing irrigation systems in the dry zone to improve water use and promote non-paddy crops.
- (6) Construction of small fishing ports along both the east and west coasts to allow fishing in coastal water during the monsoon seasons.
- (7) Modernization of facilities for handling and milling rice to improve quality, reduce losses and wastes, and make fuller use of rice by-products.
- (8) Establishment of processing centers for rubber produced on holdings of less than 100 acres to up-grade quality.

CEYLON

BACKGROUND DATA

| | |
|---|-------------------|
| US\$ 1.00 (March 15, 1971) | 5.95 Rupees |
| One Rupee | 16.8 US cents |
| GDP (at current prices) 1970 | US\$ 1.98 billion |
| Per capita GDP 1970 | US\$ 158 |
| Annual growth rate, total GDP (1960-70) | 4.7% |
| Annual growth rate, Agricultural GDP (1960-70) | 3% |
| Agricultural GDP as % of total GDP (1970) | 33.6% |
| Total population (1970) | 12.5 million |
| Total labor force (1971) | 4.5 million |
| Agricultural labor force as % of total labor force (1971) | 54% |
| Annual growth rate total population (1960-70) | 2.4% |
| Production of Main Crops in 1960 and 1970: | |

| | <u>1960</u> | <u>1970</u> |
|---------------------------------------|-------------|-------------|
| Paddy ^{1/} (million bushels) | 43 | 77.5 |
| Coconut (million nuts) | 2,188 | 2,536 |
| Tea (million pounds) | 435 | 468 |
| Rubber (million pounds) | 218 | 351 |

Acreage of Main Crops in 1960 and 1970 (thousand acres):

| | <u>1960</u> | <u>1970</u> |
|---------------------|-------------|-------------|
| Paddy ^{1/} | 1,468 | 1,876 |
| Coconut | 1,070 | 1,145 |
| Tea | 582 | 597 |
| Rubber | 668 | 569 |

Annual Growth Rates in Percent for Main Crops, 1960-70:

| | <u>Paddy ^{1/}</u> | <u>Coconut</u> | <u>Tea</u> | <u>Rubber</u> |
|----------------|----------------------------|----------------|------------|---------------|
| Planted Area | 2.1 | 0.5 | 0.2 | -0.4 |
| Yield Per Acre | 3.6 | n.a. | 0.5 | 6.2 |
| Production | 5.8 | -0.1 | 0.7 | 5.8 |

Livestock numbers: (thousand head)

| | <u>1965</u> | <u>1970</u> |
|---------|-------------|-------------|
| Cattle | 1,904 | 1,593 |
| Buffalo | 1,051 | 736 |
| Pigs | 117 | 108 |
| Sheep | 35 | 27 |

Fertilizer consumption (thousand tons of nutrient):

| | <u>1965</u> | <u>1970</u> |
|-------------------------------|-------------|-------------|
| N | 35.8 | 52.6 |
| P ₂ O ₅ | 17.7 | 19.4 |
| K ₂ O | 30.0 | 29.0 |

^{1/} Unhulled.

Agricultural exports (1970).....US\$301.9 million
 Agricultural imports (1970).....US\$182.7 million
 Agricultural exports as % of total exports (1970).....90%
 Agricultural imports as % of total imports (1970).....46%
 Main agricultural exports: Tea, rubber, coconut products
 Main agricultural imports: Rice, wheat flour, sugar
 Cost of Living index: (1952 = 100)
 All products 1970 138
 Food 1970 137

Distribution of Farm Holdings by Size:

| | <u>Number of holdings</u> (thousand) | <u>Acres of land</u> (thousand) |
|--------------|---|------------------------------------|
| Under 1 acre | 414 | 177 |
| 1 - 2.4 | 350 | 541 |
| 2.5 - 4.9 | 222 | 764 |
| 5 - 10 | 132 | 8,562 |
| Over 10 | 52 | 2,333 |

CEYLON

AGRICULTURAL OUTPUT, LAND USE, AND EMPLOYMENT
IN AGRICULTURE, 1970

| Products | Agricultural output | Land use | Employ- ment | Percentage distribution | | |
|-----------------|------------------------|--------------------|---------------------------|-------------------------|-------------|-----------------|
| | | | | Output | Land Use | Employ- ment |
| | <u>Mil. Rs.</u> | <u>Thous.acres</u> | <u>Thous. workers</u> | <u>Pct.</u> | <u>Pct.</u> | <u>Pct.</u> |
| Perennial Crops | | | | | | |
| Tea | 844 | 597 | 700 | 20 | 4 | 35 |
| Rubber | 345 | 569 | 200 | 8 | 4 | 10 |
| Coconuts | 478 | 1,145 | 90 | 11 | 7 | 4 |
| Minor crops | 70 | 187 | 10 | 1 | 1 | 1 |
| Total | 1,737 | 2,498 | 1,000 | 40 | 16 | 50 |
| Field crops | | | | | | |
| Rice | 1,029 | 1,250 | 700 | 24 | 8 | 35 |
| Other | 668 | 503 | 180 | 16 | 3 | 9 |
| Total | 1,697 | 1,753 | 880 | 40 | 11 | 44 |
| Other | | | | | | |
| Livestock | 296 | - | - | 7 | - |) |
| Fishery | 259 | - | - | 6 | - |) |
| Forestry | 187 | 8,208 | - | 4 | 51 |) 6 |
| Grossland | - | 1,053 | - | - | 7 |) |
| Other | 114 | 2,476 | - | 3 | 15 |) |
| Total | 4,281 | 15,988 | 1,977 | 100 | 100 | 100 |

Source: Department of Census and Statistics, and Mission Estimates

CEYLON

AGRICULTURAL PRODUCTION (VOLUME)
CLASSIFIED BY CROPS

| Unit | 1960 | 1961 | 1962 | 1963 | 1964 | 1965 | 1966 | 1967 | 1968 | 1969 | 1970 | |
|--------------------------------|------------------|--------|--------|--------|--------|--------|---------|--------|--------|--------|--------|--------|
| Plantation Crops | | | | | | | | | | | | |
| Tea | Million lbs. | 435 | 455 | 467 | 485 | 482 | 503 | 490 | 487 | 496 | 484 | 468 |
| Rubber | Million lbs. | 218 | 215 | 229 | 231 | 246 | 261 | 289 | 316 | 328 | 333 | 351 |
| Coconut | Million nuts | 2,188 | 2,613 | 2,830 | 2,551 | 3,001 | 2,681 | 2,468 | 2,350 | 2,642 | 2,486 | 2,536 |
| Cocoa | Thousand cwt. | 140 | 167 | 232 | 182 | 228 | 244 | 278 | 268 | 249 | 290 | 308 |
| Citronella | Thousand lbs. | 73 | 22 | 14 | 141 | 83 | 212 | 230 | 418 | 88 | 124 | 14 |
| Coffee | Thousand cwt. | 57 | 70 | 15 | 28 | 44 | 43 | 34 | 28 | 30 | 24 | 25 |
| Cashew | Thousand nuts | 69,641 | 59,591 | 13,848 | 13,974 | 37,791 | 112,489 | 30,451 | 43,117 | 74,723 | 32,065 | 46,897 |
| Tobacco | Thousand cwt. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| Sugarcane | Thousand cwt. | 849 | 1,894 | 2,206 | 1,321 | 2,912 | 8,452 | 3,000 | 3,579 | 4,211 | 7,546 | 9,841 |
| Betel | Billion numbers | 231 | 156 | 259 | 61 | 57 | 195 | 175 | 50 | 55 | 97 | 51 |
| Arecanuts | Thousand cwt. | 2,539 | 3,008 | 2,695 | 4,058 | 1,629 | 1,679 | 2,067 | 2,194 | 1,800 | 2,801 | 3,864 |
| Foodgrains | | | | | | | | | | | | |
| Cereals: | | | | | | | | | | | | |
| Paddy | Million bushels | 43.0 | 43.1 | 48.0 | 49.2 | 50.5 | 36.3 | 45.7 | 54.9 | 64.5 | 65.9 | 77.5 |
| Maize | Thousand bushels | 332 | 364 | 301 | 417 | 353 | 378 | 368 | 637 | 461 | 628 | 548 |
| Sorghum | Thousand bushels | 36 | 53 | 35 | 63 | 30 | 51 | 48 | 40 | 29 | 40 | 20 |
| Kurakkan | Thousand bushels | 603 | 726 | 580 | 778 | 583 | 685 | 691 | 584 | 552 | 655 | 539 |
| Menneri | Thousand bushels | 41 | 54 | 36 | 62 | 52 | 40 | 26 | 55 | 52 | 51 | 36 |
| Pulses: | | | | | | | | | | | | |
| Cowpea | Thousand bushels | 134 | 44 | 49 | 77 | 80 | 117 | 92 | 103 | 89 | 97 | 113 |
| Greengram | Thousand bushels | 395 | 67 | 80 | 91 | 87 | 144 | 88 | 86 | 91 | 96 | 81 |
| Dhall | Thousand bushels | 1 | n.a. | 3 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| Oil Seeds | | | | | | | | | | | | |
| Ground Nuts | Thousand bushels | 48 | 53 | 40 | 86 | 198 | 118 | 150 | 171 | 281 | 218 | 180 |
| Gingelly | Thousand bushels | 193 | 258 | 189 | 325 | 325 | 296 | 220 | 321 | 320 | 351 | 260 |
| Condiments & Spices | | | | | | | | | | | | |
| Chillies, green | Thousand cwt. | 283 | 411 | 307 | 609 | 344 | 398 | 381 | 569 | 476 | 390 | 634 |
| Red Onions | Thousand cwt. | 736 | 815 | 734 | 701 | 492 | 629 | 628 | 756 | 685 | 762 | 817 |
| Turmeric | Thousand cwt. | 35 | 36 | 44 | 36 | 39 | 44 | 62 | 48 | 51 | 47 | 31 |
| Ginger | Thousand cwt. | 75 | 82 | 92 | 82 | 101 | 88 | 83 | 79 | 93 | 92 | 82 |
| Mustard | Thousand cwt. | 15 | 14 | 21 | 35 | 91 | 23 | 22 | 29 | 29 | 24 | 31 |
| Pepper | Thousand cwt. | 151 | 225 | 127 | 132 | 189 | 170 | 192 | 221 | 96 | 257 | 275 |
| Cardamon | Thousand cwt. | 33 | 23 | 28 | 29 | 21 | 35 | 63 | 45 | 55 | 68 | 68 |
| Cinnamon | Thousand cwt. | 130 | 127 | 126 | 133 | 169 | 204 | 142 | 234 | 235 | 232 | 246 |
| Vegetables | | | | | | | | | | | | |
| Sweet Potatoes | Thousand cwt. | 901 | 1,148 | 844 | 1,021 | 1,340 | 1,003 | 1,243 | 1,445 | 1,498 | 1,303 | 1,420 |
| Potatoes | Thousand cwt. | 21 | 77 | 23 | 143 | 93 | 46 | 145 | 227 | 360 | 530 | 625 |
| Manioc | Thousand cwt. | 5,136 | 5,843 | 5,553 | 6,062 | 7,270 | 6,461 | 5,693 | 7,694 | 8,436 | 7,923 | 6,963 |

Source: Department of Census & Statistics

CEYLON

EXPORTS - PRODUCTION, VOLUME, VALUE AND PRICE ^{1/}

| | | 1960 | 1964 | 1965 | 1966 | 1967 | 1968 | 1969 | 1970 |
|------------------------------------|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| <u>Tea</u> | | | | | | | | | |
| Production | mil. lbs. | 435 | 482 | 503 | 490 | 487 | 496 | 484 | 468 |
| Exports | mil. lbs. | 410 | 456 | 495 | 441 | 478 | 460 | 445 | 460 |
| Unit Price | US\$ per lb. | 0.56 | 0.53 | 0.51 | 0.49 | 0.46 | 0.42 | 0.40 | 0.41 |
| Export Value | US\$ mil. | 230.2 | 239.9 | 254.2 | 215.8 | 219.0 | 193.2 | 178.3 | 188.2 |
| <u>Rubber</u> | | | | | | | | | |
| Production | mil. lbs. | 218 | 246 | 261 | 289 | 316 | 328 | 333 | 351 |
| Exports | mil. lbs. | 235 | 253 | 267 | 298 | 291 | 328 | 315 | 354 |
| Unit Price | US\$ per lb. | 0.34 | 0.24 | 0.24 | 0.24 | 0.20 | 0.17 | 0.23 | 0.21 |
| Export Value | US\$ mil. | 79.0 | 60.9 | 63.9 | 70.8 | 58.3 | 55.7 | 72.4 | 73.9 |
| <u>Coconut Products</u> | | | | | | | | | |
| Production | mil. nuts equiv. | 2,183 | 3,000 | 2,681 | 2,486 | 2,416 | 2,600 | 2,616 | n.a. |
| Exports | mil. nuts equiv. | 976 | 1,626 | 1,274 | 1,028 | 951 | 1,096 | 895 | 874 |
| Average Export Value | US\$ thous/mil nut equiv. | 40 | 35.3 | 45.4 | 40.1 | 36.2 | 51.0 | 40.6 | 45.4 |
| Exports Value | US\$ mil. | 38.7 | 57.4 | 57.8 | 41.2 | 34.4 | 55.0 | 37.2 | 39.8 |
| <u>Of Which:</u> | | | | | | | | | |
| <u>Copra</u> | | | | | | | | | |
| Exports | thousand cwt. | 583 | 1,162 | 819 | 416 | 316 | 425 | 381 | 305 |
| Unit Price | US\$ per cwt. | 11.6 | 10.0 | 12.4 | 12.6 | 12.3 | 13.4 | 11.5 | 12.5 |
| Export Value | US\$ mil. | 6.8 | 11.6 | 10.1 | 5.3 | 3.9 | 5.7 | 4.4 | 3.8 |
| <u>Coconut Oil</u> | | | | | | | | | |
| Exports | thousand cwts. | 1,110 | 2,351 | 1,738 | 1,457 | 1,354 | 1,261 | 1,105 | 1,142 |
| Unit Price | US\$ per cwt. | 15.1 | 13.8 | 17.5 | 15.6 | 13.6 | 17.8 | 16.4 | 17.1 |
| Export Value | US\$ mil. | 16.8 | 32.4 | 30.5 | 22.7 | 18.1 | 22.4 | 18.1 | 19.6 |
| <u>Dessicated Coconut</u> | | | | | | | | | |
| Exports | thousand cwt. | 1,099 | 1,080 | 1,041 | 930 | 926 | 1,382 | 1,017 | 967 |
| Unit Price | US\$ per cwt. | 13.6 | 12.4 | 16.5 | 14.2 | 13.5 | 20.0 | 14.4 | 16.9 |
| Export Value | US\$ mil. | 15.0 | 13.4 | 17.2 | 13.2 | 12.5 | 27.6 | 14.7 | 16.5 |
| <u>Other Exports</u> ^{3/} | US\$ mil. | 24.6 | 28.8 | 26.7 | 24.4 | 25.0 | 25.5 | 27.2 | 33.4 |
| <u>Total Exports</u> | US\$ mil. | 372.5 | 387.0 | 402.5 | 352.1 | 336.7 | 330.3 | 315.1 | 335.3 |

^{1/} Up to the end of 1967 all export figures have been converted into dollars at the rate of \$ = 4.76, and thereafter at the current rate of \$ = Rs. 5.95.

^{2/} Due to rounding the sum of the individual figures may differ from the totals, and for the same reason the product of unit prices and export volumes may differ from export values.

^{3/} The following commodities have been included under "Other Exports" -
Coir Fibre, Coconut Shell, Charcoal, Coconuts (Fresh), Cinnamon, Pepper, Cardamons, Cloves, Graphite, Ilmenite, Cocoa, Tobacco, Citronella, Glycerol, Glycerin, Leather, Precious Stones, Jewellery, Clothing, Footwear.

Source: Ceylon Customs and Ministry of Planning and Employment, Ceylon.

CEYLON

PRODUCTION, ACREAGE AND YIELD OF PADDY, 1960-1971

| <u>Year</u> | <u>Paddy Production</u> (millions bushels) | | | <u>Net Acreage Harvested^{1/}</u> (1,000 acres) | | | <u>Average Yield per Net</u> <u>Acre Harvested</u> (bushels) | |
|-------------|---|-------------|--------------|--|-------------|--------------|--|-------------|
| | <u>Maha</u> | <u>Yala</u> | <u>Total</u> | <u>Maha</u> | <u>Yala</u> | <u>Total</u> | <u>Maha</u> | <u>Yala</u> |
| 1960 | 26.3 | 16.7 | 43.0 | 728.5 | 455.5 | 1,184.0 | 36.1 | 36.8 |
| 1961 | 27.1 | 16.0 | 43.1 | 754.4 | 441.4 | 1,195.8 | 35.9 | 36.5 |
| 1962 | 30.3 | 17.8 | 48.1 | 795.9 | 472.6 | 1,268.5 | 38.0 | 37.7 |
| 1963 | 31.6 | 17.6 | 49.2 | 834.5 | 462.1 | 1,296.6 | 37.8 | 38.0 |
| 1964 | 32.1 | 18.4 | 50.5 | 832.8 | 471.7 | 1,304.5 | 38.6 | 38.9 |
| 1965 | 23.1 | 13.2 | 36.3 | 676.3 | 379.9 | 1,056.2 | 34.1 | 34.7 |
| 1966 | 30.7 | 15.0 | 45.7 | 856.0 | 429.5 | 1,285.5 | 35.9 | 35.0 |
| 1967 | 34.9 | 20.1 | 55.0 | 855.4 | 476.5 | 1,331.9 | 40.9 | 42.0 |
| 1968 | 43.5 | 21.1 | 64.6 | 916.2 | 472.8 | 1,389.0 | 47.5 | 44.6 |
| 1969 | 46.9 | 18.9 | 65.8 | 916.7 | 460.9 | 1,308.512 | 51.2 | 48.2 |
| 1970 | 49.5 | 28.0 | 77.5 | 947.941 | 561.6 | 1,509.5 | 52.2 | 49.78 |
| 1971 | 41.6 | 25.56** | 67.2* | 935.20 | 514.556** | 1,449.756* | 44.90 | 49.68** |

^{1/} The net acreage harvested is estimated to be 85% of the gross area planted.

Sources: Annual Report 1968 Central Bank of Ceylon.
Statistical Abstract of Ceylon.
Ministry of Agriculture and Food.

* Provisional

** Targets

CEYLON

AGRICULTURAL OUTPUT TARGETS FOR 1976

| Products | 1970 Actual | 1976 Targets | Annual Growth rates 1970-76 |
|-------------------------------|----------------|-----------------|-----------------------------------|
| | | | Percent |
| 1. Tea, mil.lbs. | 468 | 550 | 2.7 |
| 2. Rubber, mil. lbs. | 351 | 400 | 2.2 |
| 3. Coconuts, mil. nuts | 2,632 | 3,000 | 2.2 |
| 4. Paddy, mil. bu | 77 | 116 | 7.1 |
| 5. Sugar, thous. tons | 8 | 50 | 36.0 |
| 6. Chillies, thous. cwts. | 125 | 600 | 30.0 |
| 7. Onions, thous. cwts. | 716 | 2,400 | 22.0 |
| 8. Pulses, thous. cwts. | 51 | 265 | 32.0 |
| 9. Maize, thous. cwts. | 409 | 660 | 8.3 |
| 10. Pineapples, thous. tons | 69 | 155 | 14.4 |
| 11. Sorghum, thous. cwts. | 1 | 23 | - |
| 12. Groundnuts, thous cwts. | 132 | 266 | 12.4 |
| 13. Passion fruit, mil.lbs. | 10 | 75 | 40.0 |
| 14. Cashew, thous. cwts. | 18 | 67 | 25.0 |
| 15. Cocoa, cwts. | 50 | 59 | 2.8 |
| 16. Milk, thous. pints a day | 850 | 1,400 | 2.6 |
| 17. Meat, mil. lbs. | 93 | 119 | 4.2 |
| 18. Eggs, mil. | 278 | 342 | 3.6 |
| 19. Fish, thous. tons | 107 | 170 | 8.0 |
| 20. Timber, mil. cu. ft. | 6 | 12 | 12.3 |
| 21. Cotton, tons | 380 | 18,000 | 90.0 |
| 22. Natural silk, thous. lbs. | - | 106 | - |

Source: The Five Year Development Plan, Ministry of Planning and Employment, Ceylon, November 1971

CEYLON
GOVERNMENT NET FOOD SUBSIDY
(Rs. million)

| ITEMS | 1965/66 | 1966/67 | 1967/68 | 1968/69 (Actual Provi- sional) | 1969/70 (Orig. Estimate) | 1969/70 (REVISED ESTIMATE) | 1970/71 (Orig. Estimate) | 1970/71 (REVISED ESTIMATE) 6/ | 1971/72 (Original Estimate) |
|--|----------|----------|---------|---|--------------------------------|----------------------------------|--------------------------------|--|-----------------------------------|
| 1. Subsidy to the consumer on imported rice | 180.8 1/ | 218.5 | 279.9 | 276.1 | 237.2 | 263.9) | | | |
| 2. Subsidy to the producer and consumer on local rice | 269.2 | 206.1 | 250.3 | 269.2 | 319.6 | 252.5) | 524.8 2/ | 604.0 2/ | 746.6 |
| 3. Subsidy on locally produced red onions | 5.3 | 6.3 | 6.8 | 6.8 | 8.0 | 8.0 | 8.5 | 8.5 | 9.0 |
| 4. Distribution expenses and other charges | 31.4 | 34.6 | 37.2 | 51.8 | 48.5 | 61.1 | 79.9 | 79.9 | 87.3 |
| 5. Value of rice ration coupons surrendered in repayment of loans issued by Co-operative Societies | - | - | 0.4 | 11.1 | - | 10.0 | - | - | - |
| 6. Rice Subsidy Tax | 0.3 | 0.3 | 1.9 | 3.1 | 2.0 | 3.0 | 3.0 | 3.0 | - |
| 7. Total Gross Subsidy (1 to 5 - 6) | 487.1 | 465.2 | 572.7 | 611.9 | 611.3 | 592.5 | 610.2 | 687.4 | 842.9 |
| 8. Profit on sale of sugar | 204.1 1/ | 224.3 | 239.5 | 254.6 | 210.6 | 222.6 | 120.1 3/ | 124.8 3/ | 63.7 |
| 9. Profit on sale of flour | 0.5 | 35.8 | 41.0 | 33.9 | 49.1 4/ | 33.0 | 32.2 | 37.4 | 22.0 |
| 10. Profit on sale of other goods 5/ | 4.8 1/ | 2.7 1/ | -4.1 | -5.4 | -8.2 | -3.6 | -1.2 | -1.2 | - 1.6 |
| 11. Total (8 - 10) | 209.7 | 263.3 | 276.4 | 283.1 | 251.5 | 252.0 | 151.1 | 161.1 | 84.1 |
| 12. Net Food Subsidy | 277.4 | 201.8 1/ | 296.3 | 328.8 | 359.3 | 340.5 | 459.1 | 528.4 | 758.8 |

NOTE: The "Net Food Subsidy" figures given in this Table will differ from those published in the Government Accounts on account of the fact that collections from Rice Subsidy Tax are netted against the food subsidy.

1/ These figures will differ from those published in Table II(F)5 of 1963 and II(F)7 of 1969 of the Central Bank Annual Report because of certain subsequent adjustments.

2/ It is not possible to provide a reliable estimate of issues (imported and local) under the first and second measure. Hence item 1 and 2 are not computed.

3/ Net of a sum of Rs.86.1 million being cost of PEECs on imports of sugar.

4/ Includes rebate on import of flour under U.S. PL.480 amounting to Rs. 20.6 million.

5/ Includes lentils, maldive fish, red onions and whole wheat.

6/ Figures not officially announced yet.

Source: Food Commissioner.

CEYLON
GOVERNMENT PURCHASES OF GUARANTEED PRICE PRODUCE^{1/}

| Commodities | Unit | 1959/60 | 1960/61 | 1961/62 | 1962/63 | 1963/64 | 1964/65 | 1965/66 | 1966/67 | 1967/68 | 1968/69 | 1969/70 |
|-----------------|------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Paddy | Thousand Bushels | 20,835 | 23,921 | 26,189 | 27,760 | 29,176 | 23,102 | 28,448 | 16,547 | 15,374 | 14,977 | 22,267 |
| Maize | Cwt. | 13,241 | - | 2,635 | 1,858 | 344 | 257 | 11,291 | 2,023 | 2,596 | 53,334 | 61,087 |
| Gingelly | " | 1,707 | 693 | 98 | 39 | 138 | 196 | 649 | 17 | 87 | 15,093 | 2,140 |
| Chillies, Dried | " | 13 | 350 | 444 | 22 | 998 | 3,458 | 6,222 | 1,157 | 350 | 7,962 | 2,694 |
| Cow Pea | " | - | - | - | 31 | 509 | - | 32 | 54 | 6 | 232 | 432 |
| Red Onions | " | 155,823 | 46,132 | 196,892 | 208,162 | 190,020 | 285,753 | 324,554 | 402,067 | 401,378 | 392,580 | 314,526 |
| Bombay Onions | " | - | - | - | - | 132 | 419 | 959 | 506 | 405 | 125 | 414 |
| Black Pepper | " | - | - | 28 | 241 | 323 | 101 | - | - | 5 | - | - |
| Potatoes | " | 2,961 | 577 | 471 | 116 | 1,481 | 6,898 | 27,150 | 42,468 | - | 6,681 | 2,227 |
| Cotton | " | - | 3,750 | 1,846 | 9,600 | 1,800 | 3,793 | 12,003 | 9,177 | 6,744 | 12,427 | 8,057 |
| Termeric | " | - | - | 3 | 20 | - | 27 | - | 5 | 10 | - | - |
| Kurakkan | " | 6 | 31 | 3 | - | - | 17 | 32 | 12 | 1 | 112 | 66 |
| Sorghum | " | 1,511 | 1,578 | 236 | - | - | - | 36 | 15 | 34 | 1,308 | 469 |
| Green Gram | " | 102 | 10 | 7 | - | - | 4 | 64 | 61 | - | 78 | 206 |
| Mustard | " | 1,153 | 3 | - | - | - | - | 1 | - | 1 | 1 | - |
| Groundnuts | " | - | - | 4 | - | - | 142 | 3,945 | 1,627 | - | 578 | 2,360 |

Source: Annual Reports of the Commissioner of Agrarian Services, and Department of Agrarian Services.

^{1/} Local produce purchased by the Government at fixed prices from the producers at purchasing centres to encourage local production.

CEYLON

UNEMPLOYMENT IN 1971 - DISTRIBUTION BY AGE AND SEX
(Numbers in thousands)

| <u>Age Group</u> | <u>Male</u> | <u>%</u> | <u>Female</u> | <u>%</u> | <u>Total</u> | <u>%</u> |
|------------------|----------------|--------------|----------------|--------------|----------------|--------------|
| 10 - 14 | 6,900 | 1.8 | 3,300 | 2.0 | 10,500 | 1.9 |
| 15 - 19 | 159,300 | 41.3 | 55,200 | 33.6 | 214,500 | 39.0 |
| 20 - 24 | 135,700 | 35.2 | 70,900 | 43.1 | 206,200 | 37.5 |
| 25 - 29 | 38,200 | 9.9 | 22,400 | 13.6 | 60,500 | 11.0 |
| 30 - 34 | 17,400 | 4.5 | 7,200 | 4.4 | 24,800 | 4.5 |
| 35 & over | 28,100 | 7.3 | 5,400 | 3.3 | 33,500 | 6.1 |
| TOTAL | 385,600 | 100.0 | 164,400 | 100.0 | 550,000 | 100.0 |
| 15 - 24 | 295,000 | 76.5 | 126,100 | 76.7 | 420,700 | 76.5 |
| 15 - 29 | 333,200 | 86.4 | 148,500 | 90.3 | 481,200 | 87.5 |

Source: Estimate of the Ministry of Planning and Employment,
based on the 1968 Labour Force Survey proportions.

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

INTERNATIONAL DEVELOPMENT ASSOCIATION

OFFICE MEMORANDUM

TO: Mr. L. W. Bartsch DATE: December 13, 1971
FROM: H. T. Chang and R. E. Welsh
SUBJECT: CEYLON - Supervision of Drainage and Reclamation Project,
Credit 168-CE
Full Supervision Report

In accordance with Terms of Reference dated September 30, 1971, a supervision visit was made between October 5 and 14, 1971 to Ceylon. Credit 121-CE and Loan/Credit 653/174-CE were supervised during the same period and are covered in separate reports. Discussions were held with the Minister of Irrigation, Power and Highways, and with appropriate officials of the Departments of Irrigation and Agriculture. A trip was made to inspect the status of work in progress. A list of principal people met is presented in Annex 1.

Project Data

| | | |
|------|---|-------------------------------|
| 1.01 | Amount of Credit | : US\$2.5 million |
| | Amount Disbursed at September 30, 1971 | : US\$0.5 million |
| | Appraisal Estimate of Disbursements at September 30, 1971 | : US\$1.2 million |
| | Amount Uncommitted at September 30, 1971 | : US\$1.8 million (estimated) |
| | Date of Agreement | : November 13, 1969 |
| | Effective Date | : February 12, 1970 |
| | Closing Date | : December 31, 1974 |
| | Date of Last Supervision Mission | : March 1971 |
| | Current Exchange Rate | : US\$1 = Rs 5.95 |

1.02 The project provides improved conditions enabling two crops of rice to be grown each year on 13,200 ac of low-lying land in six non-contiguous areas on the southwest coast of Ceylon. It involves cleaning and enlarging existing drains and improvement of their outlets to the sea, construction of new drains, levees and sea groynes (rock dikes), regulator structures, access roads, and office facilities. It also involves acquisition of necessary rights of way, procurement of construction and operating equipment, and provision of consultant services for equipment procurement. Setting up of a salinity monitoring program and preparation of specific programs to improve cultural practices and introduce new rice varieties also are provided.

1.03 The Borrower is obligated by the Credit Agreement to collect charges at least sufficient to cover costs of operating and maintaining the project works and facilities.

Summary

2.01 Although little progress has been made since April 1971, when insurrection activities disrupted the work, construction is being resumed now and should be accelerating under current plans. Without the occurrence of further disruptions and by exerting greater effort, the closing date of December 31, 1974 could be met (para 4.01).

2.02 Some dredging equipment from the Ministry fleet has been removed from the project. The need for all available equipment to be assigned to this work if the closing date is to be met was mentioned to the Minister of Irrigation, Power and Highways (para 4.02).

2.03 Adequate and timely equipment maintenance are lacking as a result of the removal of the Mechanical Branch from the Irrigation Department. The Minister gave assurance, however, that a small unit with adequate repair facilities was being organized within the Irrigation Department to maintain exclusively the equipment purchased under the Credit (para 4.03).

2.04 There has been too much delay in reordering important equipment items for which firm orders were not placed under original bids (para 4.04).

2.05 As of September 30, 1971, total disbursements amounted to US\$0.513 million (Rs 3.06 million). The disbursement rate should increase rapidly now as work is accelerated (para 5.01). There is no change in the project estimate of US\$4.1 million (Rs 24.4 million) (para 5.02).

2.06 The agricultural field experiments sponsored by the Department of Agriculture were delayed by rains, but were scheduled to be sown in different sub-projects before the end of October 1971 (para 6.01). The effectiveness of a recently instituted system for demonstration and extension of new rice varieties depends upon how well the demonstration plots are supervised (para 6.02).

2.07 The soil survey of all sub-projects is essentially completed, but the criterion used for determining potential saline areas is questionable. Salinity monitoring of drainage water is on a routine basis (para 7.02).

2.08 An agro-economic survey is scheduled for completion around the end of 1971. The survey findings will be used by the Government in connection with the on-going study of means to recoup operation and maintenance costs of the project (para 8.01).

Action Recommended

3.01 The attention of the Government should be drawn to the following (a draft letter is attached as Annex 2):

- (a) request the use of all available equipment on the project, in addition to that purchased by the Credit, and that an all out effort be made to expedite the work for completion by the closing date of December 31, 1974 (para 4.02);
- (b) urge the Irrigation Department to take prompt action in reordering heavy duty tractors, front-end loaders, mobile workshop, and other equipment needed for work on the project (para 4.04);
- (c) suggest that the Department of Irrigation conduct a more detailed study of areas potentially vulnerable to development of soil salinity (para 7.02); and
- (d) suggest that additional information on family consumption needs be obtained as a part of the agro-economic survey (para 8.01).

3.02 It is recommended that the next supervision mission take place in April or May 1972.

Physical Execution of Project

4.01 Little progress has been made since April 1971 when security measures were imposed by the Government to curb insurrection activities. Work is continuing now with construction of sea groynes at Iranavilla and Bolgoda sub-projects; some handwork on access roads, revetments, and bunds (levees) at Iranavilla, Dedduwa Rantotavila, Madampe, and Kiralakele; and dredging at Bolgoda. Unless further unanticipated disruptions occur, and if present plans to speed up the work are followed, the closing date of December 31, 1974 can be met.

4.02 Seven new dredges have been delivered, with two being used to train operators at Bolgoda, and one each being assembled at the other five sub-projects. All of these dredges should be operating in November. One dredge from the Ministry fleet was being used at Bolgoda, but two others had recently been taken off of this project. The need for all available dredging equipment to be assigned to the Project, if the large amount of dredging work required is to be completed by the closing date, was mentioned to the Minister of Irrigation, Power and Highways. This should also be emphasized in a letter to the Director of the Irrigation Department (Annex 2).

4.03 Frequent mechanical breakdowns have contributed to delay. Constant maintenance is necessary for equipment, partly due to erosion from the salt water and salty air at these oceanside sub-project sites. During last year's reorganization of the Irrigation Department, the Mechanical Branch was removed entirely from that Department's control. The likelihood of problems occurring under this arrangement for maintenance of equipment purchased by the Credit was discussed in a letter dated May 27, 1971 from Deputy Director Votaw of the Bank's South Asia Department to Mr. Gunasekera, Permanent Secretary, Ministry of Planning and Employment.

The lack of a reply to this letter and concern about insufficient and delayed maintenance were brought to the attention of the Minister of Irrigation, Power and Highways by the mission. He gave assurance that a small maintenance unit with adequate equipment was being established under the Irrigation Department to exclusively take care of equipment purchased under the Credit.

4.04 The status of procurement of equipment to be used on the project was reviewed and records were updated. It was found that some procurement actions had not been reported to IDA. Also no action had been taken in certain cases after rejecting bids (received in 1970) which were too high or were non-responsive to requirements. There has been too much delay in reordering. In some other cases, when awards were made after expiration of the bid validity periods, price increases were requested by the bidders for increased costs during the excessive period between bid opening and award dates. Final action has not yet been taken in all of these cases. Technical requirements will need clarification before readvertising for two tractors with dumpers, two pay loaders, a low bed machinery carrier and a mobile workshop. As hauling of the remainder of the stone required for the project can be done with existing equipment, 10 dump trucks for which no award was made are no longer needed and reordering of them will not be necessary. The Irrigation Department should be reminded by letter of the urgency for reordering equipment (Annex 2).

Disbursements

5.01 As of September 30, 1971 disbursements totalled US\$0.513 million (Rs 3.06 million). Although total disbursements currently are only about 40% of the total anticipated by this time in the Appraisal Report, the disbursement rate should increase rapidly during the next year as construction work is accelerated. A revised disbursement schedule is presented in Annex 3.

5.02 No significant increase in Project costs is anticipated as a result of the delays which have occurred. The Project estimate of US\$4.1 million (Rs 24.4 million) is unchanged. By letter dated May 25, 1971, IDA found no objection to revisions in details of project costs, which still totalled US\$4.1 million overall.

Research and Extension Program

6.01 The progress made on research is satisfactory. The Peradeniya Research Station has finalized the design of field experiments to be conducted in the project area, selected the experimental sites, and distributed experiment instructions to the District officers. Rain has delayed planting, but all District officers visited by the mission stated that the experimental plots will be sown before the end of October, which is still within the normal range of planting season. There will be a total of 116 experimental fields laid out at 43 sites in five of the six sub-projects. No experiments will be laid out in Bentota Right Bank sub-project, because it is considered that findings from the left bank sub-project

will be applicable. The experiments are of three types: variety trial, fertilizer trial, and variety/fertilizer trial; and on three types of soils: alluvial, bog and half bog. The Department of Irrigation is providing funds for the experiments on the current crop. Funds for future experiments will be included in the budget of the Department of Agriculture. A summary of the distribution of experimental fields is given in Annex 4.

6.02 The Department of Agriculture (Extension Division, Peradeniya) has recently instituted a nationwide system for demonstration and extension of new rice varieties, which will also be followed in the project area. A brief description of the system is given in Annex 5. The system seems to be satisfactory and would not require new funding. The effectiveness of the system, however, depends very much on how well these demonstration plots are supervised by the local Agricultural Instructors and Overseers. The next supervision mission should be able to check results in the field.

Soil Survey and Salinity

7.01 Field work of the soil survey has been completed for all six sub-projects. A preliminary report has been prepared. Maps have been prepared to show distribution of different soil types according to a summary classification given in Annex 6. The maps have already been used by the Department of Agriculture in selecting experimental sites and will be useful for future demonstrations and extension.

7.02 The Land Use Division of the Department of Irrigation which carried out the soil survey also prepared a "Report on the Salinity Estimation" in the project area. The report marked extensive areas as "potentially saline," based on soil sample analysis and a criterion which depicts the soil as potentially saline if the saturated paste of samples shows an electro-conductivity of above 0.5 millimho per cm at 25°C. The adequacy of samples taken and the criterion used are questionable. Suggestions for modifying sampling procedures and the criterion are given in the draft letter (Annex 2).

7.03 Monthly monitoring of the salinity of the drainage water is being conducted.

Water Charge Study

8.01 A sample agro-economic survey of the farmers, cultivation committees and cooperatives in the project area is under way and expected to be completed around the end of 1971. The Land Commissioner's Department is in charge of the survey, with participation of the Departments of Irrigation and Agriculture in a working committee set up for the purpose. The mission reviewed the questionnaire being used for the survey and found it quite comprehensive in most respects, except that it contains no survey items on family consumption needs of the farmers. This void may affect later analysis of farmers' payment ability of project charges. A suggestion to obtain this additional information is included in the attached draft letter to the Government (Annex 2).

Organization, Management and Performance of the Borrower

9.01 Research and extension on rice crop in the Department of Agriculture are well organized, and communication is good between the headquarters in Peradeniya (both the Extension Division and Experiment Station) and the field extension officers in the Districts and Divisions.

H.T. Chang:R.E. Welsh:tk:MT/ST Agri. Projs.
IBRD

cc: Messrs. Chadenet, Baum, Ripman, King, Rovani, Lee, van der Tak
Engelmann, Lithgow, Elliott, Evans, Wapenhans, McIvor,
Adler, Takahashi, Darnell, Jones, Forcum, Roulet (Area),
Sella (Legal), Ramadan (Controller's)

Central Files

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

INTERNATIONAL DEVELOPMENT ASSOCIATION

OFFICE MEMORANDUM

TO : Mr. L.W. Bartsch DATE: December 20, 1971

FROM : H. T. Chang and R. E. Welsh

SUBJECT : CEYLON - Loan/Credit 653/174-CE
 Mahaweli Ganga Development Project, Stage I
 Full Supervision Report

In accordance with the Terms of Reference dated September 30, 1971, a visit was made to Ceylon between October 5 and 14, 1971, to supervise the Mahaweli Ganga Development Project, as well as the Lift Irrigation (Credit 121-CE) and Drainage and Reclamation (Credit 168-CE) Projects, which are covered in separate reports. Discussions were held with members of the Mahaweli Development Board (MDB) and officials of various Government organizations, and a trip was made to the Project area to inspect the status of work in progress, the Kantalai Sugar Plantation, and the Maha Illuppallama Agricultural Research Station. Also, many contacts were made with the Agricultural Sector Mission which was in Ceylon during October 1971.

Places visited and officials met are listed in Annex 1.

Project Data

| | | |
|------|--|------------------------------------|
| 1.01 | Amount of Loan | US\$14.50 million |
| | Amount of Credit | US\$14.50 million |
| | Amount disbursed (as of September 30, 1971): | |
| | Loan | US\$ 0.15 million |
| | Credit | US\$ 2.24 million |
| | Appraisal estimate of disbursements (as of September 30, 1971): | |
| | Loan | US\$ 0.19 million |
| | Credit | US\$ 7.09 million |
| | Amount uncommitted (as of September 30, 1971): | |
| | Loan | US\$13.35 million (estimated) |
| | Credit | US\$11.26 million (estimated) |
| | Date of Loan and Credit Agreements Effective Dates | January 30, 1970 April 30, 1971 |
| | Closing Dates | June 30, 1976 |
| | Date of last supervision mission | March 1971 |
| | Current Exchange Rate | US\$1 = Rs 5.95 |

1.02 The project will provide an improved water supply to 126,700 ac of existing irrigated land and 40 MW of hydropower generating capacity. Major project facilities to be constructed include a diversion dam, tunnel and power plant in the Polgolla complex; a diversion dam, tunnel and feeder canal in the Bowatenna complex; improvement of existing water delivery facilities; and ancillary irrigation and drainage work. These facilities will also make available additional water to develop 104,500 ac of new land in subsequent stages of the project. On-farm development of 4,000 ac of sugarcane, as well as investigation and other work necessary for on-farm development of existing irrigated land and new land in a subsequent stage of the scheme are also provided. Consultants are provided for supervision of construction of Stage I and preparation of a feasibility report for Stage II.

Summary

2.01 Overall progress on preparation of designs and bidding documents and on construction of civil works is satisfactory. About 1.5 miles have been excavated of the five-mile Polgolla Tunnel. Although this work is about one month behind schedule, quality of the rock continues to be very good and the work is being accelerated. It is expected that the construction schedule for completion of the tunnel by August 1973 will be met (para 4.02). Construction of Polgolla Diversion Dam is about two months behind schedule mainly due to overtopping of the cofferdam by unusually severe floods. The subcontractor will likely need greater assistance from the prime contractor to meet the Diversion Dam contract completion time (para 4.03). The contractor is ready to start excavation at the Polgolla Power Plant site, where the Consultants are conducting preliminary foundation tests to determine grouting requirements (para 4.04).

2.02 Construction firms have been prequalified for bidding on the construction of Bowatenna Diversion Dam and Tunnel, and documents are being issued for bid opening in January 1972. A construction schedule prepared by MDB retains July 1974 for completion of the Unit, and actions to date are on schedule. A transmission line for construction power is to be constructed by the Ceylon Electricity Board which has requested funds from MDB for purchase of foreign-produced line conductor and hardware. MDB will officially request the Bank's approval for purchase of the required materials by CEB, together with additional quantities of the same items for other CEB projects (para 4.06).

2.03 The Consultants are working closely with Project engineers and contractor personnel, and they appear to be developing good relations with MDB officials. Design decisions supported by a report prepared by the Consultants have been accepted by MDB, except the design of the tunnel invert lining which would require a contract change order for Polgolla and is being further investigated by MDB (para 4.08).

2.04 Disbursements were 32% from the Credit and only commitment charges from the Loan as of September 30, 1971. These should pick up during the next year as larger and more frequent disbursement requests are submitted

for the work at Polgolla and as construction gets underway at Bowatenna. Disbursements from both the Loan and Credit should be completed by the closing date of June 30, 1976 (para 5.01).

2.05 Field work for land classification of Stages I, II and III areas is completed and map compilation has commenced. The USBR Land Classification System generally has been followed with some modifications, except for Stage III lands where the soil survey was completed in 1969 (para 6.01).

2.06 Procurement of farm equipment for the Kantalai Sugar Plantation is scheduled for the spring of 1972, but as delivery is not expected until late that year, equipment from the Ministry pool should be used to start basic land improvement next spring. Assistance of MDB and the Consultants will be needed in redesigning the irrigation and drainage system (para 7.05).

2.07 The progress in land classification, map compilation, research, establishment of pilot settlement farms, and socio-economic surveys indicates that the feasibility report for Stage II can be completed by July 1972. A survey on farm consumption needs should be included (para 8.02).

2.08 MDB has good management and is well organized for implementing the Stage I (para 10.01). It will have, however, the formidable task of coordinating the various agricultural aspects and preparing farmers and extension officers in irrigated farming of upland crops in Stage II, and specific plans should be developed (para 10.02).

2.09 A committee appointed to study the recouping of project costs has concluded that a land betterment tax is the only feasible solution, but legislation will be required and a final decision is not expected soon (para 11.01).

Action Recommended

3.01 A letter (Annex 2) should be sent to the Mahaweli Development Board covering the following:

- (a) Express satisfaction with the work at Polgolla Tunnel and the good management and organization of both MDB and the prime contractor (para 4.02);
- (b) Mention concern that additional flooding with overtopping of the cofferdam could further delay construction of the Polgolla Diversion Dam. MDB should be urged to see that the prime contractor gives all necessary assistance to the subcontractor and that every effort is made to get this construction back on schedule (para 4.03);
- (c) Request MDB to keep the Bank advised of findings and proposals regarding lining of the Polgolla Tunnel invert. A contract change order proposed by the Consultants on this subject may increase the project cost substantially (para 4.08);

- (d) Reiterate that the USBR system should be followed in land classification work as far as practicable. Reasons for modifications should be fully explained in the feasibility report for Stage II of the project (para 6.01);
- (e) Suggest to Government that procurement of farm machinery for the Kantalai Sugar Plantation be initiated as soon as possible and that equipment from the Ministry's machinery pool be allocated to the Plantation so that basic land improvement work can be started in the spring of 1972. Also suggest that MDB and the Consultants should assist the Plantation in redesigning the irrigation and drainage system and land grading (para 7.05);
- (f) Advise Government that the feasibility report for Stage II should include specific proposals for realizing the agricultural and economic projections (para 10.03).

3.02 Government has taken some positive steps in studying means of recouping a part of the project cost, but its progress should continue to be closely supervised by the Bank (para 11.03).

3.03 A request is expected from MDB for the Bank's approval of the purchase from foreign sources of project transmission line materials by the Ceylon Electricity Board (CEB), together with additional quantities of the same materials for other CEB projects. The mission recommends that approval be given after receipt of MDB's request, provided advertising follows Bank procedures for international competitive bidding with bidding restricted to Bank member countries and Switzerland (para 4.06).

3.04 The mission recommends that the next supervision mission take place in April or May 1972.

Physical Execution of the Project

4.01 Some delay in construction of the project was experienced as a result of an insurrection in April 1971. Resulting security restrictions now are being relaxed, and most of the work under contract is proceeding at a normal rate.

4.02 Polgolla Tunnel. Good progress is being made on Polgolla Tunnel excavation, although the work is about one month behind schedule. The contractor expects to average a total of 60 ft of tunnel excavation per day from now on except when poor rock conditions are encountered. Quality of the rock has been very good so far, with few steel supports required. Because of the favorable rock conditions, it is expected now that only about 15% of the tunnel will need to be lined with reinforced concrete, with an additional 15% requiring guniting or unreinforced lining. 7,300 ft of the 26,100-ft long tunnel have been excavated, and the contractor expects to catch up soon and stay ahead of schedule. The Consultants have closely inspected the tunneling work and have advised the contractor on the depth,

spacing and charge for drill holes to assure minimum fracturing and overbreak. At the tunnel intake area, relocation of the main highway is completed, excavation is progressing, and a cofferdam is being constructed. At the surge tank site near the tunnel outlet, a 4-inch pilot hole has been bored through to the tunnel and will be excavated to full diameter for the tank. Work in the tunnel area is well organized, and the contractor keeps orderly work areas and has good equipment.

4.03 Polgolla Diversion Dam. The Polgolla Diversion Dam which is being constructed by a subcontractor, State Engineering Corporation (SEC), has been delayed by the April insurrection and also by three unusually severe floods which overtopped the cofferdam protecting the work area on the left bank. Before the last flood, 703 cu yd of concrete had been placed in one of the ten blocks which will form the Diversion Dam. Cleaning up of the remaining area within the cofferdam (4 additional blocks) was nearly completed for concrete placement. Additional overtopping can be expected, but if the foundation concrete can be placed in the first lifts of these four blocks before more overtopping occurs, the cleanup work will be much easier and concrete placement then should proceed more rapidly. The most recent flood eroded the right river bank, endangering a road and several homes. The contractor is placing rock on the right bank to protect it from further erosion. SEC was not able to quickly train crews for the placing of concrete, and the Diversion Dam now is about two months behind schedule. The prime contractor has assigned engineers to help coordinate and supervise the work and is prepared to give more assistance, if necessary, but SEC may not be able to work fast enough to get the base concrete placed in the Polgolla Diversion Dam before further overtopping causes additional delay. Delay in construction of the Diversion Dam was discussed with MDB officials, and the Bank's concern should be restated in a letter to MDB (Annex 2). Bidding documents for the electrical and mechanical equipment for the diversion dam and tunnel intake are being prepared. Announcements are being distributed requesting bids in February 1972.

4.04 Polgolla Power Plant. Camp facilities have been erected by the contractor at the Polgolla (Ukuwella) Power Plant site. Equipment is being moved in to start excavating and to build a small cofferdam for diverting a stream around the drop structure area below the Power Plant. The Consultants have drilled three test holes through the overburden and are conducting preliminary tests to determine foundation grouting requirements. Additional holes will be drilled and more extensive testing will be done as excavation of the overburden progresses, making the rock more accessible. An announcement has been issued of six bid invitations for the Polgolla Power Plant equipment. These bidding documents are all being prepared for issuance by March 1972.

4.05 Suda Ganga Training. Surveying and preparing the cross-sections for the 30 miles of river (the Suda Ganga) between the Polgolla Power Plant and the Bowatenna Diversion Dam site have been completed. Plans for enlarging and straightening the stream bed are being prepared by the Consultants in France and are expected to be completed soon.

4.06 Bowatenna Diversion Dam and Tunnel. Eight contractors have been pre-qualified for bidding on the construction of Bowatenna Diversion Dam and Tunnel. Bidding documents have been distributed to these firms for preparation of bids to be opened on January 11, 1972. Bidding documents for the major equipment are being prepared and should be received by the Bank for review in February 1972. There will be only one major equipment contract which will include the gates and related items. A construction schedule prepared by MDB for the Bowatenna Diversion Unit is included as Annex 5, retaining July 1974 for completion of the Unit. Although this date may be optimistic, the preparation of designs and bidding documents, as well as the other actions required before award of the construction contract, is on schedule. A 16-mile transmission line is to be constructed by CEB from Dambulla to Bowatenna to supply construction power. CEB has requested the Mahaweli Development Board to release Rs 620,000 for the purchase of foreign-produced material such as insulators and line conductor for use in constructing this line. The mission was asked whether CEB may advertise for the required materials, together with additional quantities of the same materials for use on other CEB projects, if the entire order is restricted to Bank member countries and Switzerland. MDB was requested to submit the question officially by letter to the Bank. The mission recommends approval of this procedure when the MDB request is received.

4.07 Consultants. The Consultants, Sogreah, have a resident engineer geologist stationed at Kandy, near the Polgolla Project headquarters, who has access to all daily progress and inspection reports and who is in constant contact with Project engineers and contractor personnel. Other Sogreah engineers are now stationed in Colombo, but one more will move to the Project area as soon as construction is started on the Bowatenna Diversion Dam and Tunnel. Some design work is being done in France. Good relations appear to be developing between the Consultants and MDB personnel.

4.08 Design Considerations. A report dated July 1971 on design considerations for Phase I of the project was prepared by Sogreah, and a copy was received by the Bank. The decisions supported by the report and subsequent correspondence have been accepted by MDB and are being followed in designing the project, except the lining of the tunnel invert. The Consultants recommended issuance of a contract change order requiring a minimum of 8 inches of concrete in the Polgolla Tunnel invert to be placed against clean rock with all muck removed, in lieu of placing 4 inches of concrete on compacted muck as permitted by the specifications. MDB is reluctant to issue the change order because of the additional cost involved, but they have written to the U.S. Bureau of Reclamation for advice. Because of the potential significant increase in cost of the tunnel, MDB should be requested to keep the Bank informed of the results of their findings and proposals in this matter (Annex 2). No concrete lining will be placed until the tunnel is completely excavated.

4.09 Cost Estimates. Past delays in construction of the Project are not expected to significantly increase cost estimates. Designs are not yet finalized for the Polgolla Power Plant equipment, but an estimate of the cost is being prepared. Firm cost estimates of the tunnel lining should be

completed in December 1971, after which revised project cost estimates can be completed.

Disbursements

5.01 Loan disbursements (US\$145,302) have been limited to commitment charges. The US\$2,243,315 disbursed from the credit as of September 30, 1971 is only about 32% of the appraisal estimate. The rate of disbursement should pick up, however, during the next year as larger and more frequent disbursement requests are submitted for work at Polgolla and as construction gets underway at Bowatenna. Forecasts by MDB, which appear to be realistic, indicate that disbursements from both the Loan and Credit should be completed by the closing date of June 30, 1976.

5.02 Revised Loan/Credit disbursement schedules are given in Annexes 3 and 4.

Land Classification

6.01 The aerial survey of the H and IH areas of Stages I and II has been completed. Field work of semi-detailed soil survey and land classification of the entire project areas are also completed. Map compilation has commenced, and when completed, overall irrigation and drainage plans will be developed. The USBR system has been generally followed with some modifications, except for 65,000 ac of Block D in Stage III, where the semi-detailed soil survey was completed prior to December 1969, and land classification was done by identifying land use and other land features from the aerial photos and superimposing this information on soil survey maps. MDB should be requested to give full explanations of deviations from the USBR system in the Stage II feasibility report (Annex 2).

6.02 The consultant land classification expert and field technician both have arrived since May 1971.

Agriculture

7.01 Maha-Illuppallama Agricultural Research Station. Good progress has continuously been made at this station on agronomical research over a wide range of upland crops and different aspects of each crop. A summary table of the kinds of research being carried out during the Maha (October-April) season 1971/72 is given in Annex 6. Highlights of the research results obtained so far, contributing to the IDA-financed projects in Ceylon, include the following:

- (a) Preliminary recommendations have been made on irrigation frequency, amount for each irrigation, and total irrigation requirements for maize, groundnut, soybean, green grain, black grain, chillie, onion and cotton.

- (b) A dew dwarf rice variety, a cobalt irradiation induced mutant of the prevailing extension variety, H4, has been released for extension beginning Maha 1971/72. The new variety, MI-273, outyields H4 by a wide margin and has grain quality equal to it. It also equals IR8 in yield but surpasses it in grain quality. Its extension will not only ensure the achievement of the projected rice yield in the Stage I project, but is expected to have a significant impact on rice production in the dry zone as a whole.
- (c) An effective control measure for a major chillie disease, leaf curl, has been worked out. Experiments on other cultural practices, and pest and weed control for other crops, are in good progress.

7.02 Recent research confirmed earlier reports that the low water holding capacity of the red-brown soils, which are dominant in the project area, plus the high evapo-transpiration rate and the tendency of so-called "soil sealing" by the impact of heavy rain, limit the available moisture to crops to a narrow range of soil moisture content. The soils thus dry out as well as become saturated quickly. These soil characteristics have so far limited rainfed farming and also posed problems for irrigated farming of upland crops in the dry zone. The station pointed out the need of rather precise irrigation intervals for different crops during dry spells and different rates of irrigation for different stages of crop growth. This points to the need of planting upland crops in blocks composed of fields of many farmers and a close coordination between extension workers and operating engineers for scheduled irrigation. These soil factors and their implications on project design should be fully discussed in the feasibility report for Stage II.

7.03 Work on the 100 odd ac pilot settlement scheme of 5 ac farms at the Station is being continued satisfactorily. Ninety acres of these lands (18 farm units) have been classified into well drained (52 ac), imperfectly drained (36 ac) and poorly drained (2 ac). Land preparation is done by narrow bench terracing, broad bench terracing, or contour bunding, according to topography. Cropping patterns have been adopted for land of different drainage properties, and crop performance and economic data are being monitored for each farm unit. These data will be useful in a number of ways: (a) to try out cropping patterns, land preparation and irrigation practices; (b) to provide the bases for yield and production cost estimates; and (c) to uncover problems arising under actual field conditions.

7.04 Three more new pilot schemes have been established respectively at Pelwehera Agricultural School Farm to the southeast of the Station, the Kantalai Sugar Plantation in the northern part of the eastern wing of the Project, and Rajangana at the western edge of the western wing of the Project. The mission visited the first two sites. At Pelwehera, the settlement farms have a total of 51 ac: 27 ac by gravity irrigation from existing canals, 18 ac by lift irrigation and 6 ac by sprinklers. Most farms are 4 ac, but some are 3 ac in size. The land preparation (contour

bunding and grading) had been completed when the mission visited, and the farms were waiting for sowing. At Kantalai, improvement of the drainage system and land grading on a 200-ac tract were underway with two DC-6 bulldozers provided by the Ministry of Irrigation, Power and Highways and other equipment of the Sugar Plantation.

7.05 Kantalai Sugar Plantation. As its own limited equipment can be spared from other work, the Sugar Plantation is doing some drain dedging and land grading on other Plantation land where drainage is the poorest. By letter dated August 25, 1971 to MDB, the Bank approved deletion of certain equipment items from the list shown in Annex 7 of the Appraisal Report and the purchase of spare parts for equipment available in the Irrigation Department. This equipment is to be reserved exclusively for work on the Mahaweli Development Project and part of it should be assigned for work at the Plantation to replace the deleted items. At a final meeting of the mission with MDB, the following were discussed:

- (a) A final list of farm equipment needed to complete the required work on 4,000 ac of the Plantation land should be decided upon as soon as possible. Some of the equipment will be provided from the Irrigation Department equipment to be rehabilitated. The remainder should be procured. The procurement of new equipment and spare parts for rehabilitation of existing equipment should then be processed without delay. All equipment should be made available to the Plantation before the end of 1972, leaving the dry seasons of 1973 and 1974 to complete the required field work before the target date of water supply in October 1974.
- (b) The Ministry of Irrigation, Power and Highways is to be requested to allocate equipment from its machinery pool to the Plantation to enable it to start basic land improvement work during the spring dry season of 1972.
- (c) MDB was requested to provide engineering assistance to the Plantation for improving the existing irrigation and drainage systems and land grading and leveling. The mission suggested that the Consultants be asked to advise whenever necessary.

Socio-Economic Survey

8.01 The socio-economic surveys are under the charge of the newly appointed Deputy General Manager for Settlement, Planning and Development. The Consultant Economist has fully participated in the planning of the surveys. The surveys include the studies on farm economy, nutritional status of farmers, human factors such as local leadership and farmers' attitudes, problems concerning settlements, farmers' organization, and other development problems. The gist of five surveys in progress is given in Annex 7. Field work and data analyses are expected to be completed in April or May 1972 in time for use in the feasibility report for Stage II.

8.02 The findings of the surveys will also provide data for decisions yet to be made on recouping project operation and maintenance costs. The need to include a survey on farm consumption needs is mentioned in the attached draft letter to the Government (Annex 2). Otherwise, the progress of the surveys is deemed satisfactory.

Feasibility Report for Stage II

9.01 From the progress of the various aspects of work mentioned above, it is believed that the feasibility report for Stage II can be completed by July 1972. The General Manager of MDB has expressed the hope of early initiation of Stage II when the report is prepared and appraised.

Organization, Management and Performance of Borrower

10.01 MDB has good management, and it is well organized with competent employees both at Colombo and at the Project Office near Kandy. Cooperation with the Consultants is apparent, and relations with contractor personnel are good. The research, pilot farms, land classification and socio-economic surveys are progressing in an orderly manner. The Deputy General Manager for Settlement, Planning and Development has been appointed. He is Mr. W.R.B. Rajakaruna, who serves concurrently as the Additional Land Commissioner.

10.02 Looking into Stage II, the Board will have a formidable task in coordinating the various aspects of the agricultural part of the work and in getting farmers to adopt new practices in land preparation, irrigating of upland crops, and cultural practices for crops new to them. Problems of the same nature are now being faced by the Lift Irrigation Project (see separate supervision report for 121-CE) and are contributing heavily to the delays in the development of that project. For Mahaweli, which has over 10 times more area than the Lift Irrigation Project, the problems will be magnified proportionately.

10.03 Therefore, it is recommended that (a) specific programs aimed at achieving effective coordination and training farmers and extension officers in irrigated farming of upland crops be presented in the feasibility report for Stage II, and (b) Government should intensify implementation of the Lift Irrigation Project and use it as a training ground for extension officers to gain actual experience in irrigated farming of upland crops for application in Mahaweli Stage II.

Water Charges

11.01 Government has studied means for recouping the operation and maintenance costs of the project, although, in whatever form the collection may be assessed, it will not be called a water charge. A Committee appointed to make the study has submitted to the Minister of Irrigation, Power and Highways a proposal in which the pros and cons of alternative means of collection are discussed. The Committee concludes that a Land Betterment Tax appears to be the only feasible solution. The amount to be recovered

is not mentioned in the proposal, but is dependent upon the findings of the socio-economic studies being conducted under this project and the IDA-financed Drainage and Reclamation Project (168-CE). The Committee paper is entitled "Recovery of Operation and Maintenance Costs," but recovery of the capital cost, or a part of it, is also under consideration.

11.02 The Committee Proposal has not elaborated on how the Land Betterment Tax is to be levied, nor is the Ministry ready to discuss it at this stage. The mission believes, however, that under Ceylon's political and social circumstances, and in view of the past dialogue on this matter between the Bank and the Government after the 1970 general election, the adoption of a Land Betterment Tax as a means of recouping costs should be acceptable to the Bank in principle. It would be similar in nature to an Ad Valorem Tax by which each farmer is assessed on a per acre basis for the improved land productivity due to the irrigation project, whether the farmer uses the water or not. However, if this form of taxation is to be adopted, the following precautions should be taken:

- (a) An appropriate agency must be empowered by legislation in unmistakable terms to effectively make collections. Once the system is promulgated, it should be enforced.
- (b) Legislation should provide for sufficiently frequent reassessment and revision of the tax rate to keep it in line with changes in operation and maintenance costs of the project and changes in the money value.
- (c) Farm income should be continuously monitored to learn farmers' current ability to pay which, when sufficient, should be the best assurance of payments by the farmers.

11.03 It is not recommended that the Bank write to the Government on these precautions at this time, as to do so may further delay policy decisions in levying charges. Instead, questions along these lines should be brought up for discussion at the Permanent Secretary or the Additional Permanent Secretary level by future Bank missions to Ceylon. Since legislative action is required, final decision on this matter by the Government is not expected in the near future.

H.T. Chang/R.E. Welsh:tk/mm-v:MT/ST Agri. Projs.
IBRD

cc: Messrs. Chadenet, Baum, Ripman, King, Rovani, Lee, van der Tak Engelmann, Lithgow, Elliott, Evans, Wapenhans, McIvor, Adler, Takahashi, Darnell, Jones, Forcum, Roulet (Area), Sella (Legal), Ramadan (Controller's)

Central Files

THE DEVELOPMENT FINANCE CORPORATION OF CEYLON (DFCC)
(US\$1 = Rs. 5.95)

Bank Group Involvement

1. DFCC was granted two Bank loans totalling \$12 million, of which \$6.7 million was cancelled, leaving the net effective amount to \$5.3 million. The amount now outstanding is \$2.4 million. Uncommitted is \$2.1 million and undisbursed \$2.7 million.

General Background

2. DFCC was established in 1955. Its share capital is held by private Ceylonese institutions and individuals (42%), government-owned institutions (25%) and foreign shareholders (33%). The Board consists of 9 members: 6 shareholder-elected directors, 1 government-appointed director, and two ex-officio directors. The General Manager, DFCC's executive officer, has not been appointed since Mr. C. Loganathan resigned to join the Bank in June 1971. Acting General Manager is Mr. S. Kanagaratnam. Mainly due to the present government policy, which has demoralized the private sector, DFCC has become inactive. During the first 9 months in 1971, DFCC committed only 7 loans in the total amount of Rs. 3 million.

Problems and Issues

3. DFCC's use of Bank loans is very slow. Although the Bank agreed last December to extend by one year the period during which DFCC can draw on the loan, the current outlook for the complete utilization of the loan is not bright.

4. DFCC has asked the Bank's approval of the amendment to the DFCC Act, currently being drafted by the Government. The Bank has reserved its final reaction pending the finalization of the draft, although it has agreed in principle to the proposed amendments, which include the change of composition of the DFCC Board by adding another government-appointed director.

DFC's January 1972

OFFICE MEMORANDUM

TO: Files

FROM: J.-D. Roulet

SUBJECT: Ceylon - DFCC

DATE: December 23, 1971

1. On December 15 I called on Mr. Kanagaratnam, Acting General Manager of DFCC, to review the current status and prospects of DFCC and other outstanding matters regarding Loans 520 and 634-CE.

Mr. Fonseka, Assistant General Manager, was present. A meeting had previously been arranged with Mr. Weerasooria, DFCC's Board Chairman, but had to be cancelled following a last minute rescheduling of an appointment Mr. Baneth and I had with Finance Minister Perera.

2. Mr. Kanagaratnam began by describing the atmosphere currently prevailing in Ceylon. For the time being, new investments in the private sector have practically stopped and nearly all projects currently going forward are schemes approved long ago and already initiated by the time of the election a year and a half ago. Some of the measures included in the recent budget, in particular the ceiling on income, have had a further negative impact on the private sector and while Mr. Kanagaratnam felt reluctant to forecast future developments, it was quite obvious that these are not considered as bright. Referring to DFCC's Statement of Projects as at November 30, 1971, which he gave me (and copies of which I distributed on my return), he stressed that the remark about the "Pure Beverage Co. Ltd." project reflected a typical reaction of industrialists at the present time (the statement indicates that in reply to a reminder by DFCC, the customers had said at the end of November that they had delayed action until such time as the final implications of the budget proposals were available and that they subsequently had requested an extension for a few more weeks pending settlement with respective ministries of various matters pertaining to tax exemption and investment relief).

3. Nonetheless, some projects are under preparation and Messrs. Kanagaratnam and Fonseka felt that a few might go forward. Of those listed in the Statement of Projects, in particular, DFCC was confident that the schemes proposed by Steuart Industries, Hayleys, Ceylon Paint Industries and Shaw Industries could proceed relatively quickly and that a few more might follow in the relatively near future. The same would apply to the Ceylon Cooperative Industries Union project which, however, would have to await the amendment to the DFCC Act to permit financing by DFCC. In view of this, DFCC had asked for a postponement of the terminal date for the crediting of projects as well as of the closing date, and they hoped that this request would receive favorable consideration.

4. Elaborating on the Statement of Projects, Mr. Kanagaratnam said that while the list approved by the Ministry of Industries corresponded to the amount still available for crediting under the Loan, it was evident

that some projects would be abandoned and that others would be substantially reduced. For example, sponsors like Mowjood did not even answer DFCC's enquiries and others, like Witts, had reduced their plans to about one-tenth of their original program. In reply to a question, Mr. Kanagaratnam felt that within the next six months DFCC could well come up with requests for crediting up to about \$0.5 million, and that during Calendar 1972, they should be able to commit well over \$1.0 million. He stressed the fact that certain projects (Steuart and Hayleys) had only been submitted to DFCC recently and that DFCC had received further enquiries about the availability of foreign exchange for new projects (Ceylon Tobacco Company). They were also hoping that they would soon receive a new list of projects from the Ministry of Finance. They recognized, however, that the current climate of uncertainty was not encouraging and that forecasting future activity was much guesswork.

5. I said that personally, I found DFCC's hopes about new projects rather optimistic and recalled that since last February, when we had suggested cancellation of the balance of the loan, no new commitment was made. It therefore seemed doubtful that to extend the period was warranted in present circumstances. I said that while I would forward DFCC's views to the Bank, I felt it necessary to reserve the Bank's position. Mr. Kanagaratnam argued very strongly that even if it might prove difficult for DFCC to use the entire balance of the loan, this was DFCC's only source of foreign exchange. (I subsequently learned that the government is currently trying to get the proposed KFW loan modified to finance small industries through commercial banks.) Should the loan be terminated now, DFCC would not be in a position to entertain any hopes for financing, would stop being approached by potential investors and would thereby lose the possibility, it still has to comment and advise on the viability of the proposed projects. In a word, this would amount to putting an end to DFCC's activities. He also pointed out that in terms of commitment fee, the expense is not very high (\$15,000 annually) and that DFCC could well support it.

6. Regarding the proposed amendment to DFCC's Act, Mr. Kanagaratnam said that they had just been advised by the Ministry of Finance that draft legislation had now been completed and was about to be sent to DFCC and to the Bank. He added that DFCC's Board had so far taken the attitude that any restriction of DFCC's freedom of action should be reported to and discussed by its shareholders. Having expressed reservations in principle about the Government's suggestion that the Chairman be subject to the approval of the Government and that the Ministry of Industries be represented by a Director instead of the CISIR, DFCC was now awaiting the final draft before taking action. No decision had yet been made as to whether the Board would merely want to inform the shareholders or to convene a special meeting.

7. During my visit to Colombo, a meeting had also been scheduled with Mr. Cooray, Acting Secretary, Ministry of Finance, to discuss DFCC's problems but he fell ill and this had to be cancelled. I therefore gave the gist of my conversation with DFCC to Mr. Kappagoda, Director of External Resources Division in the Ministry of Planning. In addition, I met the Joint Secretary, Ministry of Industries, and suggested to him that the lists of projects sent to DFCC should not merely be confined to the amount from time to time available for crediting, since it was clear that approval by the Ministry was not by itself an assurance that the projects concerned would go forward. He said that he would see to it that DFCC be provided with additional projects.

8. To summarize, I doubt that in present circumstances, DFCC will be able to use much of the amount still available for commitment within the year to come. On the other hand, in view of the points in paragraph 5 above, and to avoid giving the impression that, by withdrawing the limited funds still available to DFCC, the Bank would seriously hamper its potential -- however limited this may be -- I recommend that we agree to DFCC's request.

cc: Messrs. Cargill, Diamond, Takaramura, Grosvenor, Poncia, Pottker.

J.-D. Roulet:myc

OFFICE MEMORANDUM

TO: Files

DATE: January 14, 1972

FROM: J.-P. Béguin ^{JPB}SUBJECT: CEYLON - Education Sector1. National Needs

At present, there is an inadequate relationship between Ceylon's education system and the country's economic requirements. As is emphasized in the Five-Year Plan (1972-1976), the basic shortcoming of the education system is that the academic type curriculums relate to the needs of that small minority of the output who, having reached the 'O' Level (age 15) continue on and compete for the very small number of jobs available as doctors, engineers, administrators or teachers. Of the others, some obtain employment in the clerical, technical and service occupations, while the rest begin the interminable wait for white-collar jobs that are not there.

2. Primary Education

Primary school includes grades 1 to 5. The main change introduced recently is the raising of the admission age from 5 to 6 years. The authors of the reforms assert that the child at 6 is more responsive to formal schooling. An important consequence of this change will be the reduction of the duration of the General Education Program from 12 years to 11 years.

3. Secondary Education

Secondary education is composed of a junior secondary stage (grades 6-9, age 11-15), and of a senior secondary stage (grades 10 and 11, age 15-17).

The most significant changes in the education system will be made at the junior secondary stage. The present practice of streaming at this level into science, arts and commerce will be done away with and instead there will be a common curriculum for all pupils.

The introduction of occupation-oriented studies is an attempt to correct the "white-collar bias." These studies will include farming, fishing, weaving, metal and wood work, home science, animal husbandry, horticulture, cottage crafts and service occupations. The teaching of science, mathematics and social studies will be geared to supporting these occupational studies wherever possible.

The present 'O' Level examination will be replaced by an examination for the National Certificate of General Education. This examination will serve the function of both the terminal record of educational achievement as well as the selection instrument for continued formal or vocational-technical education.

January 14, 1972

4. Evaluation of Individual Performance

Hitherto, the passing of examinations has been given overwhelming importance. 'O' Level and 'A' Level examinations were extremely selective. This system engendered a feeling of frustration among those who failed and a feeling of excessive expectation among the happy few who succeeded.

In order to correct the shortcomings of the system, the present emphasis on rote-learning will be reduced and examinations will aim at testing proficiency, aptitudes and ability to benefit from further education and training. A scheme of continuous assessment of classroom performance will also be introduced.

5. Implementation of the Reform

As the Five-Year Plan rightly emphasizes, the scramble for white-collar jobs is readily understandable in the context of the prevalent structure of wages and salaries. The present reform seems unlikely to succeed if the scales of remuneration do not reflect the desired shift from white-collar jobs to agricultural or technical activities.

JPB:avm

OFFICE MEMORANDUM

TO: Files

DATE: January 12, 1972

FROM: J.-P. Béguin *JPB*SUBJECT: The Population Problem in CeylonA. DEMOGRAPHIC TRENDS1. Population Growth

According to the provisional estimate of the 1971 Census, the population is now 12.7 million. Between 1953 and 1963, the yearly average growth rate was 2.6%, while between 1963 and 1971 it went down to 2.4%. During the past ten years, the total number of births has been averaging about 370,000 per annum. In 1970, Ceylon had a 29.4 per thousand birth rate and a 2.1% growth rate.

The basis of concern about Ceylon's population is not so much its present size or density as its high rate of growth. The rapid population growth in Ceylon resulted from the dramatic decline in the death rate in the early postwar years and the failure of people to adjust their fertility immediately to the altered situation. This dramatic decline in the death rate was due to a large extent to the successful efforts made to eradicate malaria and other diseases. It has also been due to the efforts made in the field of nutrition.

2. Fertility Trends

The birth rate was 40.4 per thousand in 1950 and went down to 29.4 per thousand in 1970. This represents a substantial downward shift in fertility.

According to an official of the Department of Census and Statistics, it is estimated that 70% of the decline in fertility came from the evolution in the composition of the groups and the increase in the average marriage age. The composition of the age groups is characterized by the fact that 42% of the population consists of children below fifteen years of age. The present age structure of the population has obviously high built-in potential for rapid population growth. The other major factor in the fertility decline comes from the fact that more women are delaying marriage or not marrying at all. The unemployment problem has been a major factor in this.

B. FAMILY PLANNING1. Health System and Problems

The health system in Ceylon benefits from a good infrastructure. Doctors, nurses, and midwives receive an adequate basic training. Health services, including maternity and child care, are provided entirely free. The only exception to the free availability of health services is a new nominal fee of 25 cents per visit for those using out-patient facilities.

Today, family planning work is carried out in only about 40% of the maternal and child welfare centers in Ceylon, and this in almost complete isolation from the ante-natal and post-natal activities of these centers. Provision has been made for the establishment of family planning clinics integrated with maternal and child work in all the centers throughout the island.

2. Family Planning Program

Activities connected with family planning have been carried out in Ceylon by the Family Planning Association (FPA), a private voluntary organization as from 1953 and by the Ministry of Health as from 1965. The Swedish International Development Authority (SIDA) has been associated with family planning activities in Ceylon as from 1958. Family planning became a national program in 1965. From 1965 onwards, family planning activities have consisted of a joint effort between the Government, SIDA and FPA.

A number of dedicated people have endeavored to put to good use the funds involved in the program, which have not been negligible. But even Ceylonese sources admit that what has been done so far in this field appears to have little bearing in relation to the magnitude of the problem.

Action on the part of the Government has so far been inhibited by two related factors. The first of these is opposition from Buddhist religious groups and the second is the suspicion with which the Singhalese and Tamils view each other, and the fear that family planning may be a device to secure greater importance for one group or the other. In this context, governments have been reluctant to provide a full endorsement for the program and a statement of its significance for development. For this reason, the statement in November 1971 by the Health Minister which put the weight of the present coalition government behind the program is being hailed in Ceylon as a major breakthrough.

3. Contraceptive Devices

The number of new acceptors steadily increased between 1966 (15,000) and 1970 (55,269). However, it is difficult to assess with precision the progress actually made, because statistics on continuation rates are either non-existent or approximate. It is highly desirable that reliable statistical data on continuation rates be developed systematically.

There is a slow evolution from the "traditional" methods toward the more "modern" methods. Condoms are still distributed in large numbers. There is a big switch from I.U.D. to the pill, although the continuation rates of the I.U.D. are much higher than the continuation rates of the pill. But I.U.D. is meeting with increasing opposition in Ceylon. Female sterilization is being carried out in increasing numbers. Only 70 male sterilizations were carried out in 1970, but a special effort will be made to increase that number in the coming years. Male sterilization still meets with strong resistance, however.

4. Targets

If the population continues to grow at the present rates, it will amount to 26.2 million in 1998. If Government targets are reached, the population would be "limited" to 19.7 million in 1998. In a sense, the magnitude of the task now facing Ceylon is due to the failure to limit births in the first post-war decades.

When the Government started its program in 1965, it was estimated that 55,000 couples a year had to be motivated to bring the crude birth rate down to 25 per thousand by 1975. But the specific targets between 1965 and 1971 were not reached. In his policy statement, the Minister of Health asserted that it had therefore become essential to motivate 700,000 more couples or check births by 150,000 a year with the use of anti-fertility drugs.

The necessary improvement of family planning implementation requires the satisfaction of several conditions:

- an important education campaign has to be launched;
- adequate Government funds have to be provided;
- increasing external aid has to come forward; and
- last, but not least, Government policy should support family planning without any hesitation or ambiguity.

5. Education Effort

The SIDA representative rightly emphasized that up till now the education effort has concentrated too much on the productive group and that the effort should be made with all age groups, even with old people, who retain a strong influence on younger people.

The FPA has a major role in the publicity effort and the education process. In particular, the responsibility for mass media promotion campaigns for family planning has been delegated to the FPA. Increasing use of posters, newspaper advertisements, radio programs and films will be made.

Needless to say, this major education campaign will require substantial funds, both local and foreign.

6. Budgetary Aspects

Total expenditure on family planning in Ceylon at the moment (including foreign contributions) is only Rs 4 to 5 million a year. They represent less than 1 million dollars at the official rate. The local contribution constitutes only 0.1% of the Government budget. In terms of expenditure by head, Ceylon is certainly not making as great an effort as the countries with more successful national family planning programs. The cost of a substantially expanded family planning program would amount to less than one percent of the Government's current account budget for social services.

7. External Aid

The Swedish Government continues to finance the bulk of expenditure, having spent US dollars 1,737,000 for family planning activities from June, 1958 to June, 1970.

It is true that the expansion of the family planning program will require larger foreign funds than those provided in recent years. But officers in the Ministry of Health and in the Ministry of Planning and External Resources expressed confidence that once specific plans would be drawn, several international organizations would be sympathetic to any requests for fresh funds.

8. Government Policy

The family planning program in Ceylon cannot possibly succeed if the Government does not give it full and hearty support. It should be admitted that the Ceylonese Governments had for a long time an ambivalent attitude toward family planning. Religious factors, ethnic tensions and even more, social resistances made of family planning a politically highly sensitive subject. In this respect, the policy statement made in November, 1971 by the Minister of Health represents a major breakthrough. There is no doubt any more that family planning is now regarded as one of the top national priorities. The continuing determination of the Government, especially at times of elections, will be a decisive factor in the future implementation of the family planning program.

JPBéguin:myc

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

INTERNATIONAL DEVELOPMENT ASSOCIATION

OFFICE MEMORANDUM

TO: Mr. Donald King January 14, 1972

FROM: J. Beach and S. S. Scales

SUBJECT: CEYLON - Ceylon Electricity Board
(i) Pre-appraisal of proposed
Transmission and Distribution Project
(ii) Supervision of Loan 636-CE
Maskeliya Oya Project
Back-to-Office Report

1. In accordance with our Terms of Reference dated October 21, 1971, we visited Ceylon November 10 - 20 in connection with the pre-appraisal of a proposed transmission and distribution project for which Association financing in FY 1973 has been requested and the supervision of the Maskeliya Oya Stage II Hydroelectric Project (Loan 636-CE).

Proposed Transmission and Distribution Project

2. The project proposed by the Borrower covers the expansion of existing transmission and distribution facilities to meet system requirements until the end of 1974. The main objectives of the proposed project would be to extend electricity services to areas not presently served and to considerably strengthen distribution in Colombo. The project is also necessary to fully utilize the additional power which will become available with the commissioning of the Maskeliya Oya Stage II Project towards the end of 1973.

3. The project is estimated to cost the equivalent of US\$24.0 million of which the foreign exchange cost is expected to amount to US\$10.0 million.

4. The project report has been well prepared and, subject to the provision of certain additional information as discussed with the Borrower, would form a suitable basis for an appraisal later this year.

Maskeliya Oya Stage II Hydroelectric Project (Loan 636-CE)

The Project

5. The hydroelectric project was originally planned to be in commercial operation by the end of September 1972. Following initial delays in the execution of the project, construction work is now proceeding at a satisfactory pace and commissioning is planned for July 1973. The mission believes that this program is optimistic and considers that a more realistic date would be the end of December 1973.

6. Load growth has been lower than was estimated when the appraisal was made early in 1969. This has been due chiefly to the unfavorable economic climate that has prevailed over the course of the last two years with the result that new industries have not been set up as planned. Nevertheless, growth is expected to average a little less than 14% per annum over the period through 1974. If this growth rate is achieved, late commissioning of the project may result in an energy shortage towards the end of 1973.

7. Following the deletion, with the Bank's agreement, of the 25 MW gas-turbine from the project and the new proposal not to proceed with the construction of the Eriyagama Switching Station, other arrangements having been made for the distribution of the power from the project, foreign exchange requirements for the project have been reduced by US\$4.5 million. Accordingly the amount of the Bank loan has been reduced from US\$21.0 to \$17.0 million and the Borrower has proposed to the Bank that a further US\$0.5 million be cancelled. There have been no other significant changes in the cost of the project.

8. Disbursements are now expected to continue until the end of 1974. The present Closing Date is September 30, 1973, and the Borrower will propose a postponement of this date to December 31, 1974. Given the circumstances which contributed to the initial delays in the execution of the project, the Bank should agree to the Borrower's proposal.

The Ceylon Electricity Board (CEB)

9. The CEB is suffering from poor management, a lack of adequately trained financial staff, and a lack of cost and revenue data. However, the firm of Messrs. Urwick International of London which has been retained to assist the CEB to set up a new organization and reorganize its accounting and financial functions is making good progress.

10. The CEB has failed to comply with a number of covenants in Loan Agreement No. 636-CE but in view of the steps presently being taken by the CEB with the assistance of its management consultants, no action by the Bank is necessary at this time except in respect of its failure to meet the requirements of Section 5.08.

11. Section 5.08(a)(v) stipulates that dividends on the Government's equity investment may be paid only to the extent that revenue is available after meeting operating expenses, debt service and a 'reasonable' portion of its capital expenditures. For the two-year period ending September 30, 1971, a reasonable portion was assessed at 25%. Under the provisions of a new Finance Act, No. 38 of 1971, which came into force October 1971, the CEB may be called upon to make payments to the Government "Consolidated Fund of such amounts as may be determined from time to time by the Minister of Finance." Notwithstanding the fact that, under the terms of Section 5.08 of the loan agreement, the CEB was not in a position to pay dividends, payments to the Consolidated Fund of Rs 1.5 million and Rs 5.0 million were

January 14, 1972

made in FY 1970 and FY 1971 respectively at the Minister's request. The Bank should write to the Government informing it that these payments have had the same effect on CEB's financial position as dividend payments would have had and that in view of the provisions of the loan agreement the above payments should not have been made. The Government should therefore be requested to pay back these amounts to CEB.

Appropriation of Net Surplus Revenue

12. The new Finance Act 38 of 1971 was not available to the mission but a copy has since been received in Washington: Section 9 details the charges which may be made against revenues in determining net surplus, and the appropriations of net surplus which may be made subject to ministerial approval.

13. It is not clear what power the CEB has to repay debt since it seems it has no power to appropriate the repayments from revenue unless the sums should first be appropriated into a "redemption fund" or 'other reserve' fund. Similarly, there is no provision for appropriating requirements for capital investment from revenue except by transfer of revenue to a capital reserve created for the purpose. The appropriation of revenue to be credited to the reserve and payment from the reserve would require separate ministerial approval. The Act also requires that the net surplus revenue of a public corporation after approved appropriations should be paid over to the Consolidated Fund. The mission feels that this is unacceptable to the Bank.

14. Clarification is desirable as soon as possible to enable the Bank to consider whether changes in the Act are necessary as a prerequisite to further lending in the power sector.

Insurance

15. Section 5.05 requires adequate insurance cover against risk in accordance with sound public utility practice. The CEB has arranged with the Government Treasury to create an insurance reserve by accommodating an annual contribution of 0.1% of the capital value of assets, or about Rs 1.0 million annually. The insurance should, however, cover "catastrophic damage" and should ensure that foreign currency would be available for the cost of repair and replacement. The existing arrangement made by the CEB does not have this effect. The CEB should be asked to seek advice from the Ceylon Insurance Corporation and the Government regarding better insurance coverage particularly with respect to foreign exchange availability and inform the Bank of appropriate arrangements.

JBeach/SSScales :mk

cc: Messrs. Chadenet, Baum, Ripman, Rovani, John King, Engelmann, Lee, Lithgow, van der Tak, Weiner, Armstrong, Howell, Berrie, Jennings, White, Saeed/Bomani, Lind, Abd El Aty (Loan Officer), Ramadan (Controller's), Poncia (Legal), Central Files (2) Division Files, Chronological File

INFORMATION MEDIA IN CEYLON

Press

Until a few years ago, Ceylon's press was remarkably free, independent and responsible. More recently, however, it has suffered from political threats and interference. As a result, it is today weak and timid; it carries a large proportion of information handed out by Government sources, but very little of critical analysis or comment. Over the past year, the censorship has been almost total.

The main dailies include:

| <u>Newspaper</u> | <u>Type</u> | <u>Circulation</u> | <u>Editor</u> |
|--|-----------------|--------------------|---|
| Ceylon Daily News | English morning | 67,000 | M. de Silva |
| * The Sun | " " | * | Dr. G. Wijeyewardane |
| Ceylon Daily Mirror | " " | 25,000 | R. Michael |
| Times of Ceylon | English evening | 15,000 | H.E.R. Abayasekara |
| Ceylon Observer | " " | 12,000 | P. Coorey |
| Dinamina | Sinhala morning | 100,000 | D. D. Wettasinghe |
| * Davasa | " " | * | D. Karunaratne |
| Lankadipa | " " | 65,000 | M.D.H. Dissanayake |
| Aththa (pro-Moscow Communist daily) | " " | 40,000 | (Influenced by Pieter Keuneman, the Com- munist in the Cabinet) |
| Thinakaran | Tamil morning | 21,000 | R. Sivagurunathan |
| Virakesari | " " | 20,000 | K.V.S. Vas |

* Both belong to the Davasa group; were relatively small, but are reported to have greatly increased their circulation since Mrs. Bandaranaike came to power.

Radio

The Ceylon Broadcasting Corporation operates under the Ministry of Information and Broadcasting, which controls all broadcasting in Ceylon. It has suffered from frequent changes in management which have followed the political instability in Ceylon. But it is an influential medium, particularly in the rural areas, where the number of receivers has increased rapidly. The broadcasts are mainly in Sinhalese, Tamil and English. The "national" programs have a fair proportion of serious content, but the "commercial" programs would be preferred by Madison Avenue.

The number of radio receivers is probably around 500,000.

Ceylon also has a rediffusion network serving Colombo and Kandy.

Television

There is no television in Ceylon.