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CEYLON APPLICATIONS UNDER ARTICLE XVIII

Note by the Secretariat

I. Introductory remarks

The present paper is intended to set out in detail the various calculations and estimates which have been used by the Panel in an attempt to appraise the effects of the measures proposed by Ceylon upon the standard of living of the Ceylonese people, on the one hand, and the foreign trade of Ceylon, on the other.

Before presenting these detailed calculations and estimates in respect of the various measures proposed, a few general points may be mentioned:

(i) The applications by Ceylon under Article XVIII raise the general question to what extent it is correct to make allowance for the expected growth in general economic activity in Ceylon when estimating the impact of the measures proposed upon Ceylon's foreign trade. Since all the applications submitted aim at the substitution of domestic production for imports, it is quite evident that their effect would in all cases tend to reduce Ceylon's import demand for the products concerned. If no growth in general economic activity should occur in Ceylon in the next several years, then all the measures would, to a greater or lesser extent, have an adverse effect on the volume of imports of those commodities the domestic production of which is to be expanded. On the other hand, if a reasonable rate of growth in Ceylon's economy takes place, that adverse effect may translate itself, not into an absolute reduction of such imports, but into a failure of such imports to rise as fast as they would have done in the absence of the measures contemplated.

Since it is the very purpose of the expansion of domestic production to contribute toward raising the level of economic activity in Ceylon, it would seem that the import-stimulating effects of Ceylon's general economic development should be taken into consideration in assessing the effects of the specific measures contemplated upon her import trade, although the expected growth in Ceylon's economy may be attributable only to a small extent to these particular measures.

(ii) For these reasons, allowance has generally been made for the expectation that Ceylon's gross national product and national income will continue to grow at a reasonable rate. From 1953 to 1954, the "gross domestic product at market prices" rose by 8 per cent and, from 1954 to 1955, by 10 per cent, while the cost of living remained constant. It therefore does not seem unreasonable to suppose that Ceylon's gross national product will grow in real terms by about 25 per cent in the next five years, say, from 1956 to 1962.

In these circumstances, the estimates of the impact of the proposed measures upon Ceylon's import trade have been based on the assumption of such further growth, except in the case of tea chests, the demand for which does not actually depend on the growth of real income in Ceylon, but on the world demand for tea and other staple exports and Ceylon's competitive position in the world markets of those products.

(iii) In assessing the effects of the various measures upon Ceylon's imports, account has been taken of the increased imports of consumer goods (including food) to which the additional incomes created as a result of the various measures would give rise. This effect has generally been estimated at about 30 per cent of the new income - a ratio based upon 1956 conditions, when a national income of about Rs. 4,000 million gave rise to imports of consumer goods (SITC Sections 1, 2, 6 and 8, plus SITC Divisions 54 - pharmaceutical products - and 55 - toilet preparations) of about Rs. 1,200 million.¹

The remainder of this paper is devoted to a fairly detailed consideration of the effects that may be expected of the measures to be taken in respect of cotton textiles, and brief notes concerning calculations relating to tea chests.

II. Cotton textiles

The release sought by the Ceylonese government in respect of cotton textiles refers to a project which would entail not only the substantial transformation of an existing industry (through the proposed concentration of production upon thirteen specific items) but also the substantial expansion of an existing industry supplying a relatively small proportion of the domestic demand.

The cotton textile industry (consisting of one spinning and weaving mill, plus 204 powerlooms and 7,023 handlooms) has a present potential output of

¹ Given the inevitably very approximate nature of the calculations to be undertaken, it has not seemed worth while to distinguish between the average and the marginal imports/income ratio.

21.5 million yards. Present actual output which is estimated¹ at 18.5 million yards includes about 9.2 million yards of the thirteen items the output of which is to be raised to about 60 million yards by 1962, while the output of other items, now accounting for 9.3 million yards, is virtually to disappear.

Effect upon Ceylon's general standard of living

In order to appraise, first, the effect of this programme upon the standard of living of the Ceylonese people, account must be taken of (a) the direct creation of additional incomes that would follow from it - with an allowance, as far as possible, for the secondary income effects, and (b) the resulting impact upon the cost of living.

(a) New income creation

The direct income creation may be estimated by adding together the additional wages, profits and outlays for domestic raw materials which are expected to be paid in the future in connexion with the project under consideration, and then making allowances for (i) other incomes not yet included and (ii) the secondary income creation that would ensue.

The first step would lead to roughly the following result :

Employment in the cotton textile industry would increase from the present level of 16,200 persons (1,400 employed in the mill and 14,800 in power-and handloom weaving outside the mill) to about 35,000 persons (3,500 in mills and 31,500 outside the mills). The additional employment envisaged would not be at the expense of other activities, but constitute the mobilisation of labour at present unemployed or underemployed.

The annual wages bill for mill employees (at Rs. 5 per day, counting 300 working days per year) would increase from Rs. 2.1 million to about Rs. 5.0 million. Incomes of weavers outside the mills, the present amount of which is not known accurately, would rise to Rs. 15 million. Together, there would be additional wage payments probably exceeding Rs. 13.0 million and possibly reaching Rs. 15 million.

As regards mill profits, estimated at about 10 per cent of invested capital in 1955, they would at that rate rise from about Rs. 600,000 to Rs. 2,200,000. No profits are allowed for weaving outside the mills.

Finally, domestic raw cotton consumed, about 280 tons in 1956, is now purchased by the mill (at the price of about Rs. 50 per cwt.) for about Rs. 280,000 per year. Expected future production of raw cotton would bring the value of this crop to about Rs. 2.1 million.

¹ The estimate has been based upon the domestic production and the imports of raw cotton (taken at their 1954-56 average volume) and the imports of cotton yarn (also at the 1954-56 average), allowing for a production of 6 yards per lb. of cotton or yarn.

These various figures may be summarized as follows :

	(million Rupees)	
	<u>1956</u>	<u>1962</u>
Millwages	2.1	5.0
Other	4.9-6.9	15.0
Profits	0.6	2.2
Cotton.	0.3	2.1
	<hr/>	<hr/>
	7.9-9.9	24.3

Together, these three types of income created in the production of cotton textiles would by 1962 represent a minimum increase in annual income of roughly Rs. $14\frac{1}{2}$ million and a maximum increase of Rs. $16\frac{1}{2}$ million. However, these figures do not cover certain other types of income (arising e.g. from transport and banking services, fuel and power costs). In order to arrive at an approximation of these additional incomes - but excluding commercial distribution services which must not be counted since the project under consideration aims only at substitution of domestic products for imports - a calculation has been made as follows : Applying the retail prices of the domestic variety of the several items to their 1956 production as shown in Secret/89, the retail value of the present domestic production of the thirteen items is found to be Rs. 3.8 million, i.e. about Rs. 1.10 per yard. Assuming this average price to apply to the total present output of textile products, its value works out at Rs. 20.4 million. Deducting the import value of yarn (Rs. 4.4 million) and raw cotton (Rs. 2.2 million), total income creation would be Rs. 13.8 million in 1956. Judging from the ratio of retail to wholesale prices shown in Secret/89, the retailers' margin seems to be about 12 per cent on the average. Allowing for a similar wholesalers' margin, a reduction of 25 per cent would seem to be an appropriate allowance for traders' margins, leaving income creation in 1956 at about Rs. 10.4 million, a figure to be compared with Rs. 7.9-9.9 million as computed from wages, profits and domestic raw cotton. It would therefore seem that an additional allowance of, say, 16 per cent on account of other types of income (excluding traders' margins) should be adequate. If applied to the prospective income from wages, profits and raw cotton production, the total for 1962 would become (Rs. 24.3 million + 16 per cent) about Rs. 28.2 million. There would thus be an increase in incomes directly created by the textile industry by something like Rs. 18 million.

As for the secondary income effects that would arise out of an additional income stream of this size, it is impossible to offer any precise indication. But so much is certain - that propagation effects will raise the total addition to annual income well above, and perhaps to a multiple of, the Rs. 18 million estimated above. The direct income effect of the project, disregarding

the secondary income effects, would in 1962 represent an addition of about 0.3 - 0.4 per cent to the national income of that year.¹

(b) Effect upon the general cost of living

In assessing the effect of the proposed expansion of production upon the general cost of living in Ceylon, account must be taken of :

- (i) the difference between the retail prices of domestic and imported products;
- (ii) the extent to which the present share of domestic products in total textile consumption will be increased, and
- (iii) the relative importance of clothing expenditure in the cost of living as a whole.

According to the data shown in Secret/89, the retail prices of the domestic varieties of the thirteen items are on the average about 58 per cent higher than those of the corresponding imported varieties. In the absence of any information on the difference in retail prices as between the domestic and the imported varieties of the other cotton textile items that make up the remainder of national consumption, this price differential of 58 per cent may be assumed to apply generally as between domestic and imported cotton textiles. Although a substantial share of present domestic output is actually sold, not to private consumers, but to government departments, the railways, etc., it is understood that the coexistence of two so widely different price levels is to be explained, in part at least, by corresponding differences in durability.

The following table shows the composition of the national consumption of cotton textiles as estimated for the present and in 1962.

Quantity Consumed
(million yards)

	Thirteen items		Other items		Total cotton textiles	
	1956	1962	1956	1962	1956	1962
Local production . .	9.2	60	9.3	-	18.5	60
Imports	85	30 - 58	50	74 - 102	135	132
Total	94.2	90 - 118	59.3	74 - 102	153.5	192

¹ The national income, which was about Rs. 4,000 million in 1956, has in this calculation been assumed to have reached about Rs. 5,000 million by 1962.

If total cotton textile consumption is supposed to increase by 25 per cent for 5 years - about half the rate at which both the gross national product and cotton textile imports have grown since 1953 - the share of local production in total consumption would increase from 12.1 per cent to 31.3 per cent. In other words, if it can be assumed that the general cost of living is at present already affected by the higher retail prices ruling for domestic products to the extent of 12.1 per cent of total cotton textile consumption, then, given the estimated growth in such consumption, the project for expanded domestic production would raise that share by about 19 per cent.

Finally, family budget enquiries¹ show that clothing expenditure accounts for 7.5 per cent of total expenditure.

In bringing these various aspects of the matter to a conclusion as to the prospective effects upon the cost of living, it should be realised that the assumed growth of total cotton textile consumption may be somewhat too high, but that this may be roughly compensated by the fact that no allowance has been made for textile consumption other than cotton (e.g. wool, silk and rayon). On the other hand, it may be somewhat unrealistic to assume that a substantially lower retail price level can be maintained for those quantities of the thirteen items that will continue to be imported - but the margin of difference may be diminished to some extent by the expected increase in the efficiency of local production and, to the extent that it is not so diminished, be justified by the superior durability of the domestic product, already referred to. For these various reasons, the conclusion to be drawn remains necessarily subject to a considerable margin of error, and is perhaps more likely to underestimate than to overstate the rise in the cost of living which must be anticipated.

Disregarding these qualifications, a price increase by 58 per cent for 19 per cent of textile consumption which in turn accounts for 7.5 per cent of the total cost of living would add 11.2 per cent (i.e. 19 per cent x 0.58) to the outlay for textiles, and therefore 0.8 - 0.9 per cent (11.2 per cent of 7.5 per cent) to the general cost of living.

In conclusion, it would therefore appear that the incomes directly created by the project, which have been estimated at 0.3 - 0.4 per cent of the national income, would have to give rise to additional indirect incomes of two to three times that amount so as to compensate the 0.8 - 0.9 per cent rise in the general cost of living, if the project under discussion is by 1962 not to have any adverse effect on the real income of the population at large.

Effects upon Ceylon's import trade

The prospective effects of the proposed expansion of cotton textile production upon Ceylon's import trade are summarized in the following table :

¹ Report on the Sample Survey of Ceylon's Consumer Finances, Conducted in May, 1953, Central Bank of Ceylon

Imports of Ceylon, Actual 1956 and Estimated 1962

		Present	1962
<u>13 items</u>	million yards	85	30 - 58
	value Rs. mn	88.9	31.4- 60.7
<u>Other items</u>	million yards	50	102 - 74
	value Rs. mn	43	87.7- 63.6
	value Rs. mn	131.9	119.1- 124.3
		=====	=====
<u>Cotton</u>	million lbs.	1.30	1.90
	value Rs. mn	2.2	3.2
<u>Yarn</u>	million lbs.	1.20	3.50
	value Rs. mn	4.4	13.0
	value Rs. mn	6.6	16.2
		====	====
<u>Additional imports of</u>			
<u>Consumer goods</u>		-	10.0- 15.0
<u>Capital goods</u>		-	5.0- 6.0
	value Rs. mn	138.5	150.3- 161.5
		=====	=====

The data shown in this table call for the following comments :

1. The higher figure for the prospective 1962 imports of the thirteen items and the lower figure for the other cotton textile items have been calculated on the assumption that the consumption of each of these two categories, as well as the total consumption of cotton textiles, would rise by 25 per cent in five years (i.e. at the same rate as national income). In the case of the other items, the figure also reflects the effect of the proposed abandonment of domestic production of such items.
2. The lower figure for imports of the thirteen items has been calculated on the assumption that the maximum standard ratio of two local units to one imported unit, leading to minimum imports, will be applied. The corresponding

higher figure for the "other" items has been calculated as the difference between a total consumption larger by 25 per cent than at present and the minimum imports of the thirteen items that would result from applying the maximum standard ratio.

3. The imports of raw cotton and yarn have been calculated by applying the ratio of six yards of cloth per lb. of cotton or yarn, leading in 1962 to a consumption of yarn of 10 million lbs. Taking into account that the present acreage planted to cotton of 2,700 acres, now yielding 280 tons of raw cotton, is to be expanded to 10,000 acres, with an expected increase of the yield to twice its present level, domestic production of raw cotton may be put at 2,070 tons (or 4.6 million lbs.), which would, of course, be turned into yarn by local spinning mills. The remaining 5.4 million lbs. of yarn would, it has been assumed, be imported to the extent of 1.9 million lbs. as raw cotton to be spun domestically, and to the extent of 3.5 million lbs. as yarn.¹

4. The lower figure for additional imports of consumer goods (including food) have for the year 1962 been estimated by applying the ratio of 30 per cent to the incomes which are likely to be directly created in connexion with the measures contemplated. The higher figure would apply if the indirect incomes which are certain to be created were twice, or three times, respectively, as large as those directly resulting from the expansion of the cotton textile production.

5. The import value for capital goods has been estimated on the assumption that all the powerlooms (valued at Rs. 15.1 million) and two-thirds of the new capital investment in the new mills (Rs. 2 million for two private mills and Rs. 14 million for a government mill) will have to be imported, and will be imported at the rate of one-fifth of the planned five-year total per year.

In conclusion, the c.i.f. value of imports directly or indirectly arising out of the cotton textile products would be Rs. 12 to Rs. 23 million (or \$2.5 - 5.0 million) larger than the imports of raw cotton, cotton yarn and cotton textiles in 1956.

III. Tea chests

As already mentioned, account has been taken of the fact that the demand for tea chests depends, not on the growth of the national income of Ceylon (although, given the importance of tea as a national product, Ceylon's income is to a substantial degree dependent on tea exports), but in the first place upon the rate of tea production which may to some extent be affected by the development of the world market for tea and Ceylon's competitive position in respect of this commodity, and also upon world market conditions of other agricultural products, especially dessicated coconut.

¹ In view of the approximate nature of this calculation, it has not seemed appropriate to make any allowance for weight lost in transformation.

For this reason, the effects upon Ceylon's import trade of the proposed measures which are intended to expand the production of tea chests in Ceylon has been calculated on two assumptions as regards the total demand for that product. On the one hand (A), it has been assumed that total requirements of tea chests would remain constant at their relatively low level of 1956-1957. On the other hand (B), it has also been assumed that demand might in the next five years gradually revert to the high level at which it stood in 1954-1955. It goes without saying that, should the world market for tea and/or dessicated coconut expand substantially, and Ceylon's competitive position in respect of these products remain unchanged or improve, this latter assumption would lead to an underestimate of the resulting growth in Ceylon's requirements of tea chests.

On the two assumptions mentioned, the total demand for tea chests, and its composition as regards chests imported and domestically produced, has been calculated for the year 1962 in the following table which also shows the actual situation that obtained in 1956-1957.

Total Demand for Tea Chests in Ceylon, Actual 1956-1957 and Prospective 1962
(million chests)

	1956 Actual	1962	
		Assumption A	Assumption B
Imports	2.4	2.2	2.95
Local production.	0.35	0.55	0.65
Total demand.	2.75	2.75	3.60

The figures shown under Assumption A indicate that, with a maximum standard ratio of 1 local unit to 4 imported units and unchanged total demand, the present plan for the development of local production could not be fully implemented, while imports would decline by 200,000 chests. On Assumption B, the total demand of about 3.6 million chests (the same as in 1954-1955) would be such that, given the present plan to raise domestic production to 650,000 by that year, the standard ratio would have to be about 1 local : $4\frac{1}{2}$ imported, as compared with the maximum standard ratio of 1 : 4. Moreover, imports would increase.

In order to appraise how the development on the two assumptions would affect Ceylon's imports, a calculation has been made which is set out in the following table.

Prospective Effect of the Tea Chest Project upon Ceylon's Imports,
in 1962, on Two Assumptions

	1st year	2nd year	3rd year	4th year	5th year	Aggregate during the five years	Average per year
<u>Assumption A</u>							
Fall in imports of chests million chests . . .	0.04	0.08	0.12	0.16	0.20	0.60	0.125
million dollars (at \$1.80 p.chest) . . .						-1.08	-0.22
Imports of equipment for the local produc- tion of 0.2 million additional chests million dollars. . .						+0.25	+0.05
Imports of additional consumers' goods million dollars. . .	0.004	0.008	0.012	0.016	0.020	+0.06	+0.0125
						about	\$160,000
<u>Assumption B</u>							
Increase in imports of chests million chests . . .	0.07	0.14	0.21	0.28	0.35	1.05	0.21
million dollars (at \$1.80 p.chest) . . .						+2.00	+0.40
Imports of equipment for the local produc- tion of 0.3 million additional chests million dollars. . .						+0.38	+0.08
Imports of additional consumers' goods million dollars. . .	0.006	0.012	0.018	0.024	0.030	+0.09	+0.018
						about	\$500,000

In calculating the foregoing figures, it has been assumed that the development, both of domestic production and of imports, of tea chests would proceed gradually during the five years.

It will be noted that the effect of the tea chest project upon Ceylon's imports is extremely sensitive to even relatively small changes in the total demand for tea chests.