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CONTRIBUTORS

PAUL CASPERSZ — Is engaged on a research study on the Economics of Tea with special reference to the pricing and marketing of Sri Lanka tea, for the Marga Institute in collaboration with the Institute for Development Studies, at the University of Sussex. This is the second article on this subject to appear in Marga Journal.

E. L. WIJEMANNE — Is Deputy Director General of Education in charge of Planning in the Ministry of Education.

RALPH PIERIS — Is presently on the staff of the UN Asian Development Institute in Bangkok. He was formerly Professor of Sociology in the University of Sri Lanka, Peradeniya, and later Director of UNESCO Institute of Growth, New Delhi.

JAGDISH C. SAIGAL — Is an Economist in the Research Division of UNCTAD, and was formerly a staff member of the UN Institute of Economic Development and Planning in Senegal.

M. F. CHANDRARATNA — Is a Director of Agro-skills, a Consultancy in Agricultural and Development Planning. He was formerly Director of Agriculture and then Professor and Head of Department of the Department of Agriculture, University of Sri Lanka. He also worked for the F. A. O. as Project Manager of a Soil Fertility Survey in the Philippines and as a Country Representative in several other countries.

SRI LANKA AND THE CHANGING WORLD TEA ECONOMY*

PAUL CASPERSZ

Before its constituent parts are analysed, it is necessary to attempt to construct a model of the present world tea economy. If this model is not constantly borne in mind, it will not be easy, perhaps not even possible — for reasons that will appear both implicitly and explicitly in the course of this article — correctly to understand the performance of tea in world trade, certainly not in the postwar period.

Towards a Model

The actors in the model are of course in the same categories as in the production and trade of any commodity, whether primary or manufactured. They are the producers, the price-fixers, the distributors, the consumers. If we can therefore delineate the specific modalities accruing to the actors in the case of tea, we shall have the elements of the model of the world tea economy.

First, it must be noted that the actors perform in two groups of countries which differ from each other in the extent of economic power. The countries in which the tea is grown and initially manufactured for bulk export form one group; those in which the tea is further processed and sold to consumers form another.[1]

* I am grateful to the Sussex Institute of Development Studies for the Fellowship facilities made available to me, as a research associate of Marga Institute, for research on tea, and to Paul M. P. Ariyapala of Satyodaya Centre, Kandy, for his valuable assistance in the organization and presentation of the statistical data in this article.

1. I believe that this contradiction of power between the two groups of countries is much more significant for the model than the 'oligopoly situation where there are a few (two) large producers and many small ones' which Dan M. Etherington highlights in his work (cf. his "An International Tea

The former are almost exclusively poor countries, with a past of colonial or equi-colonial status, and are now called the less developed or developing countries; very importantly, the lines of communication among them are weak and they are wanting in basic inter-country cooperation without which it is not possible for them even to investigate their real interlocking interests. The latter, until the entry of the Middle East as big buyers, were almost exclusively rich Western countries, with a colonizing past, and are now called the more developed or developed countries; very importantly, their lines of inter-communication are strong and they often act in collaboration with one another in the matter of trade with the developing countries. In the former wages are low, in the latter high.

The changing element in the model is the entry of the oil-producing Middle Eastern countries as powerful buyers of tea.

Secondly, the producers of tea for the consumer figure in the model at two sharply differentiated stages: the stage of growing, plucking, withering, rolling, fermenting, sorting and packing for export, which takes place in the developing countries, and the stage of shipping, blending, packeting, bagging or making instant, which takes place in the developed countries, often under the control of powerful transnational concerns. So sharply are the two stages divided, and so different are the conditions in which the operations of the two stages are conducted, that the model must allow for what are in practice two separate commodities: Tea I which is the tea at the point of export, and Tea II which is the tea that is bought by the consumer overseas.

Thirdly, the countries which have control over the production of Tea I yet have no control over its pricing and marketing abroad. Over Tea II it is clear that they have control over neither production nor pricing and marketing. In other words, it may be said in rough quantitative terms that in the model three-fourths of world economic power over tea is denied to the Tea I producing countries and lie in the hands of Tea II producing countries.

Trade Policy for East Africa: An Exercise in Oligopolistic Reasoning", *Food Research Institute Studies in Agricultural Economics, Trade and Development*, 11 : 1, 1972, p. 107. The Etherington studies oppose East Africa to India and Sri Lanka. Our model sees the real divergence of interests elsewhere, i.e., between the nationals producing the green leaf in various developing countries and the foreign controllers of the forward linkage processes.

Fourthly, the model becomes particularly intricate when it seeks to allow for the fact that control over the production of even Tea I in the developing countries is in several cases exercised by the same interests that control Tea II. The opportunities for transfer pricing are thus evident in the model. Low prices for Tea I may keep profits low, but they also justify the low wages paid to the tea workers in the growing countries. High prices for Tea II compensate for the low prices of Tea I while enabling high wages to be paid to the workers in the importing countries.

In this context, the nationalization of the tea estates in Sri Lanka is of crucial importance and can be expected to have repercussions on the model.

A model of the economy of a commodity such as tea that is produced in a poor country for rich consumers in other countries is on the surface extremely propitious for lifting the poor country out of its poverty. What prevents the model from having this outcome is the action and interaction of the four modalities that have been outlined.

For all these reasons the tea model is one in which the general supply and demand equilibrium analysis does not reveal the real nature of the world tea economy. The fact that this analysis is the one almost exclusively in use — by economists not only in the West but also in the producing countries — is not an argument in its favour. It merely makes imperative a new analysis leading to the construction of a new model, the elements of which can now be separately sketched.

Production Patterns

The chief producers of Tea I are developing countries in Asia, Africa and Latin America. The main change that has taken place in production patterns since the early 1950s is the decreasing relative importance of India and Sri Lanka and the increasing importance of the East African producers. Tables I and II illustrate the shifts that have taken place and that are still continuing.

While in the early fifties India and Sri Lanka accounted for 68 per cent of world area and 72 per cent of world production of tea (excluding mainland China and the U.S.S.R. for which

data are not available), by 1970 the percentages had dropped to 56 and 61 respectively.

TABLE I

Planted area under Tea

(thousand hectares)

Areas	1950–54 (*Annual Average*)	1960	1965	1970
South America	8.2	37.2	33.5	41.2
Asia* (of which	756.6	817.4	849.8	902.5
Sri Lanka	(229.1)	(234.6)	(239.6)	(241.8)
India)	(317.7)	(330.7)	(341.6)	(356.5)
Africa (of which	37.7	65.8	85.9	124.2
Kenya)	(8.0)	(14.7)	(23.0)	(40.3)
World Total*	802.5	920.4	969.2	1067.9

* Excludes China mainland and U.S.S.R.

Source: FAO, Second Ad Hoc Consultation on Tea, London, February 1967, Tea Statistics: ITC Annual Bulletin of Statistics, 1975.

TABLE II

Production of Tea

(thousand metric tons)

Areas	1950–54 (*Annual Average*)	1960	1965	1970
South America	1.4	6.8	18.2	34.5
Asia* (of which	576.8	703.2	800.2	883.4
Sri Lanka	(150.5)	(197.2)	(228.2)	(212.2)
India)	(283.3)	(321.1)	(364.9)	(418.5)
Africa (of which	21.8	48.0	66.6	110.7
Kenya)	(6.9)	(13.8)	(19.8)	(41.1)
World Total*	600.0	758.0	885.0	1028.6

* Excludes China mainland and U.S.S.R.

Source: FAO, Second Ad Hoc Consultation on Tea, London, February 1967, Tea Statistics, ITC Annual Bulletin of Statistics, 1975.

An accelerating rate of increase in the world production of tea can be forecast for the rest of this century. Two chief reasons can be adduced.

First, the area under tea, while generally stationary in India and Sri Lanka, is, as Table III indicates, increasing rapidly in East Africa.

TABLE III

East African Countries — Area under Tea

(hectares)

Countries	1970	1971	1972	1973	1974
Kenya	40,278	43,836	49,763	54,818	58,563
Uganda	17,455	18,508	19,085	20,426	20,793
Tanzania	11,949	12,403	14,012	14,840	16,756
Malawi	15,200	15,455	15,842	16,205	16,541

Source: ITC: ABC, 1975

In Kenya, one of the fastest growing producers, the area under tea increased from 8,507 hectares in 1952 to 58,563 hectares in 1974, a nearly sevenfold increase in twenty-two years.

The production of Tea I has also begun in Papua and New Guinea, area under tea increasing from 243 hectares in 1966 to 3,353 hectares in 1971 and production from 71 metric tons in 1968 to 1,402 metric tons in 1971. Queensland (Australia) has entered, and Nigeria will soon enter, the field of the commercial production of tea.

Secondly, the new planting of tea in the newer producing countries and the replanting or new planting in the older producing countries are generally of high-yielding clonal tea in preference to seedling tea. Thus, the new plantings of nearly 20,000 hectares of tea in Kenya between 1970 and 1974 alone can be expected to lead to prolific harvests by the end of this decade.

In contrast to the East African producers, Sri Lanka has maintained from the beginning of the sixties a stationary or even a stagnant position in her tea industry. In Table IV is illustrated the performance of the three chief variables in the Sri Lankan tea

TABLE IV

Sri Lanka: Area, Production, Exports of Tea, 1950–74

(Annual Averages, thousand hectares, thousand metric tons)

	1950–54	1955–59	1960–64	1965–69	1970–74
Area	229.1	231.0	236.9	241.3	242.0
Production	150.5	179.7	210.8	223.1	211.8
Export	146.5	170.0	199.4	210.2	196.0

Source: As for Tables I and II

economy. The steadily growing production during the mid and late fifties is probably to be explained by the increased application of fertilizer, made possible by the boom years for our tea from 1953 to 1956.[2]

On the other hand, the stagnancy of production from the early sixties is attributed to several factors: the disastrous decline in prices, the consequent low returns to the industry and the fall in the maintenance standards of tea gardens; in recent years, 'the fragmentation of estates, the uncertainty arising from Land Reform and to some extent unfavourable weather conditions', as the Central Bank Annual Report for 1974 points out, have been contributory factors.

An analysis of the area figures of Table IV might lead one to conclude that the stagnancy in tea is also due to the fact that new plantations have not been undertaken in order to increase the area under tea. However, even apart from the fact that such increase would have gone counter to other declared aims of the government to provide more area for village expansion in the tea country, it is not at all necessary for us in Sri Lanka to increase tea area in order to increase production. Steep increases in production can be achieved by replanting old seedling tea area with high-yielding clonal tea and by better management practices on the same area as presently under tea, or indeed on a considerably smaller area. In this context, the forecast of extreme optimism is that by the year 2000 our country will produce the same quantity of black tea as today without loss to quality on only one-third of the present area under tea.

General price-equilibrium theorists have a ready and monotonously repeated explanation of the falling money prices of tea since the mid-fifties or earlier. This is that there has been a persisting over-supply of tea. From this it is but a small step for the theorists to say that those responsible for the falling prices are those who most complain about them and that consequently the remedy lies in their own hands.

This approach begs several questions. Embedded in them all is the question of who profits most from the present international tea industry.

2. Cf. Chart 1.

The two chief producing countries, namely, India and Sri Lanka, have definitely not contributed to the excess of supplies on the world market. In Sri Lanka both production and export, as Table IV shows, have been roughly constant during the sixties and through to 1974. India's production has risen, but India has absorbed most of the increase into her domestic market and hence cannot be considered to have contributed to the alleged over-supply.

The East African countries, notably Kenya, as Table II indicates, have increased production considerably. It cannot be forgotten that the problem as it now exists was created by British tea companies which went to Africa with their considerable experience in India and Sri Lanka when the independence movement in these countries posed threats to their favoured positions. Even today, while FAO and UNCTAD and developed country general equilibrium theorists (followed by the borrowers of their theories in the producing countries themselves) speak of excess supplies of tea, the World Bank and other financial institutions are extending loans for the further production of tea in Africa.

In these circumstances, unless the tea-producing developing countries exercise great caution and increase their communication links with each other, it would be all too easy for powerful developed country tea interests to drive deeper and deeper the wedges that separate the interests of African producers from those of the older producers.

Exports, Imports, Domestic Consumption

Table V provides a list of 15 tea producing countries which together account for 90 per cent of world exports. It provides data pertaining to their actual exports in the three years 1971–73. The annual average exports of each country should be matched with their quota allocations for 1975/6 (decided upon at the seventh session of the Sub-Group of Exporters of the Inter-Governmental Group on Tea held in Rome in June 1974 under the auspices of the FAO).

For purposes of comparison and an analysis of quota trends the percentages of the total allocation allowed to each participating country for the years 1970 and 1974/5 have also been included.

TABLE V

Principal Exporters 1971–73 and Quotas 1970–1975/6

Countries	(EXPORTS (Thousand Met. Tons)				Quotas			
					Quantity	% of allocation		
	1971	1972	1973	1971–73 (Averages)	1975/6 (Th. Met. Tons)	1975/6	1974–5	1970
India	204.3	209.8	188.2	200.8	224.3	30.3	30.6	70.3
Sri Lanka	200.8	190.1	205.5	198.8	215.0	29.0	29.5	70.3
Kenya	34.3	47.3	51.5	44.4	70.0	9.4	8.8	6.5
Indonesia	40.2	38.5	35.6	38.1	45.0	6.1	6.2	5.8
Argentina	22.4	18.9	18.0	19.8	29.2	4.0	4.1	2.5
Bangladesh	—	13.2	20.3	16.7	29.5	4.0	3.8	—
Uganda	15.3	20.7	19.2	18.4	25.0	3.4	3.2	3.1
Malawi	18.2	19.9	22.1	20.1	25.5	3.4	3.4	3.0
Turkey	17.5	14.9	18.8	17.1	15.0	2.0	2.1	1.6
Mozambique	17.5	18.4	17.9	17.9	20.5	2.8	2.8	2.7
Zaire	6.0	7.1	5.0	6.0	15.3	2.1	2.2	1.7
Tanzania	8.4	9.2	9.5	9.0	14.5	2.0	1.8	1.3
Papua New Guinea	1.8	2.8	—	2.1	5.5	0.7	0.6	—
Mauritius	3.1	4.0	3.7	3.9	5.4	0.7	0.7	0.5
Burundi	0.3	0.4	—	0.3	0.8	0.1	0.1	0.03
TOTAL					741.0	100.0	100.0	
Less Estimated shortfall					59.0	8.0	7.5	
Net					682.0	92.0	92.5	

Sources: ITC, ABS, 1975; Report of the Seventh Session of the Sub-Group of Exporters, FAO, 1974; FAO Monthly Bulletin of Agricultural and Economic Statistics, January 1971.

While the quotas of India and Sri Lanka have decreased in the agreement from 70.3 per cent for 1970 to 60.1 per cent of the total allocation for 1974/5 and to 59.3 per cent for 1975/6, the quotas for the African producers — notably Kenya, Uganda, Tanzania, Malawi — have increased appreciably during the period.

The African producers therefore have especially to be on their guard lest suspicions are created in their minds by international tea companies — and, unfortunately, by general equilibrium economists who perform in a climate controlled by Western interests[3] — that international tea agreements will work to the advantage of India and Sri Lanka and to their own detriment. It is difficult to resist the opinion that foreign tea companies operating in Africa through their spokesmen appear to be so pro-African in international tea conferences because their profits in India and Sri Lanka are either heavily taxed or are no longer available — a state of affairs that is still very different for them in Africa.

In 1973/4 Sri Lanka actual exports were only 92 per cent of her quota. In 1974/5 her quota was reduced from 214 to 210 thousand metric tons, but for 1975/6 the quota has been marginally increased again. Sri Lanka, like India, has to guard against shortfalls from the quota. In India the shortfalls are often due to the leakage of tea into the domestic market, in Sri Lanka to shortfalls in production for a combination of the reasons that have already been mentioned.

Important shifts have taken place in recent years in the pattern of Sri Lanka's export destinations. Table VI summarizes the changes that have taken place during the decade 1963–73.

Most dramatic is the decrease in exports to the U.K. both in absolute terms and as a percentage of the total. From the U.K. importer's point of view the shifts in import patterns are described in Table VII.

3. E.g. Etherington, *op.cit.* in footnote 1. 'It should not be surprising that East Africa takes a hard line in the current international negotiations. That this is the rational attitude for these small producers to take will become clearer after our discussion of the world tea market.' The discussion, needless to say, says nothing about the hard line all Tea I producing countries should take together vis-a-vis the claims of the powerful importing countries.

TABLE VI

Sri Lanka – Tea Exports, Showing Countries of Destination

(thousand metric tons)

	1963–65		1971–73	
	Annual Average	*Per cent of Total Exports*	*Annual Average*	*Per cent of Total Exports*
U.K.	78.5	36.9	37.7	19.0
Other Europe[1]	15.5	7.3	14.8	7.4
Canada & U.S.A.	28.4	13.4	24.3	12.2
Middle East[2]	40.9	19.2	64.1	32.2
Australia & N.Z.	24.9	11.7	18.0	9.1
Pakistan	0.2	0.1	21.9	11.0
Others	24.1	11.3	18.0	9.1
Total Exports	212.5	100.0	198.8	100.0

1 Denmark, France, West Germany, Ireland (Rep.), Italy, Netherlands, Poland, U.S.S.R., Other Europe.

2 Yemen, Bahrain, Kuwait, Saudi Arabia, Dubai, Muscat, Oman, Iran, Iraq, Jordan, Lebanon, Syria, Egypt, Libya, Sudan, Tunisia.

Source: ITC: ABS, 1975

TABLE VII

U.K. — Tea Imports, showing Selected Countries from which consigned

(thousand metric tons)

	1963–65		1971–73	
	Annual Average	*Per cent of Total Imports*	*Annual Average*	*Percent of Total Imports*
Sri Lanka	78.1	31.2	38.0	17.6
India	120.9	48.3	65.9	30.5
Kenya	11.2	4.5	30 0	13.8
Uganda	2.0	0.8	8.0	3.9
Tanzania	3.2	1.3	6.5	3.0
Total Imports	250.6	100.0	216.4	100.0

Source: ITC: ABS 1975

The reasons for the decrease in our exports to the U.K. have not been adequately investigated. However, the following reasons seem pertinent: (i) in recent years tea has been increasingly diverted for sale from the London auctions to the Colombo auctions, while U.K. buyers have found it more convenient and profitable to buy in London; (ii) the increasing pressure exerted by the East African lobby in the U.K. tea trade; (iii) complaints have also been heard in London that the quality of Sri Lankan tea is deteriorating while

that of East African tea is improving; it is further alleged by some tea buying firms in London that teas bought in Colombo at a certain price are not worth that price by the time they reach the U.K. because they have deteriorated in quality over the period in transit: hence they prefer to buy in London where Sri Lankan teas are no longer on sale in sufficient quantities; (iv) the consumers in the U.K. do not discriminate so much as they used to do in favour of quality and so no longer turn in preference to tea from Sri Lanka: furthermore, the teabag is not quality — or country-conscious and it is the growing sector of the Western market for tea; (v) the change of the country's name from Ceylon to Sri Lanka has caused some confusion in the market, particularly to consumers; (vi) Sri Lanka herself pays decreasing attention to the U.K. market in proportion to increasing demand from other markets, chiefly in the Middle East and recently in Pakistan.

Nevertheless, our country would do well constantly to review and assess the importance of the various outflow channels of her tea. The U.K., Australia and New Zealand are the traditional buyers of her tea. Their people are still among the world's highest users of tea. Though their demand has shown signs of slow decrease, they still remain strong markets for tea. On the other hand, Pakistan will soon turn again to the tea produced in Bangladesh, while the Middle East market holds no guarantee that it will endure at its present high levels.

Prices

In respect of prices, the model of the existing world tea economy exhibits a pattern with the following characteristics: (i) prices that are low at any point on a time series; (ii) prices that have been since 1952–55 falling in money terms; (iii) prices that have been falling even more drastically in real import purchasing power terms; (iv) prices that are determined not merely by supply and demand but far more importantly (in our view) by institutional factors outside the control of the producing countries; (v) a spread of prices as between Tea I and Tea II that denies the benefits of production of the basic primary commodity to the producers.

(i) The phenomenon of low prices is one that is even more crucial than the phenomenon of falling prices. In the postwar period the average price of all teas at the London auctions reached a peak of 58.1 new pence per kg. in 1952 and the average price of

Sri Lanka teas reached a peak of 60.8 new pence per kg. in 1956. These prices are high only in relation to the prices before and after the peak year. They are low in relation to the only and basic criterion according to which it can be decided whether a trade price is fair, or unfair, that is, the criterion of equal exchange.[4]

(ii) Table VIII and Chart 1 document the trend of falling money prices for the teas of various countries and for all teas at the London auctions.

TABLE VIII

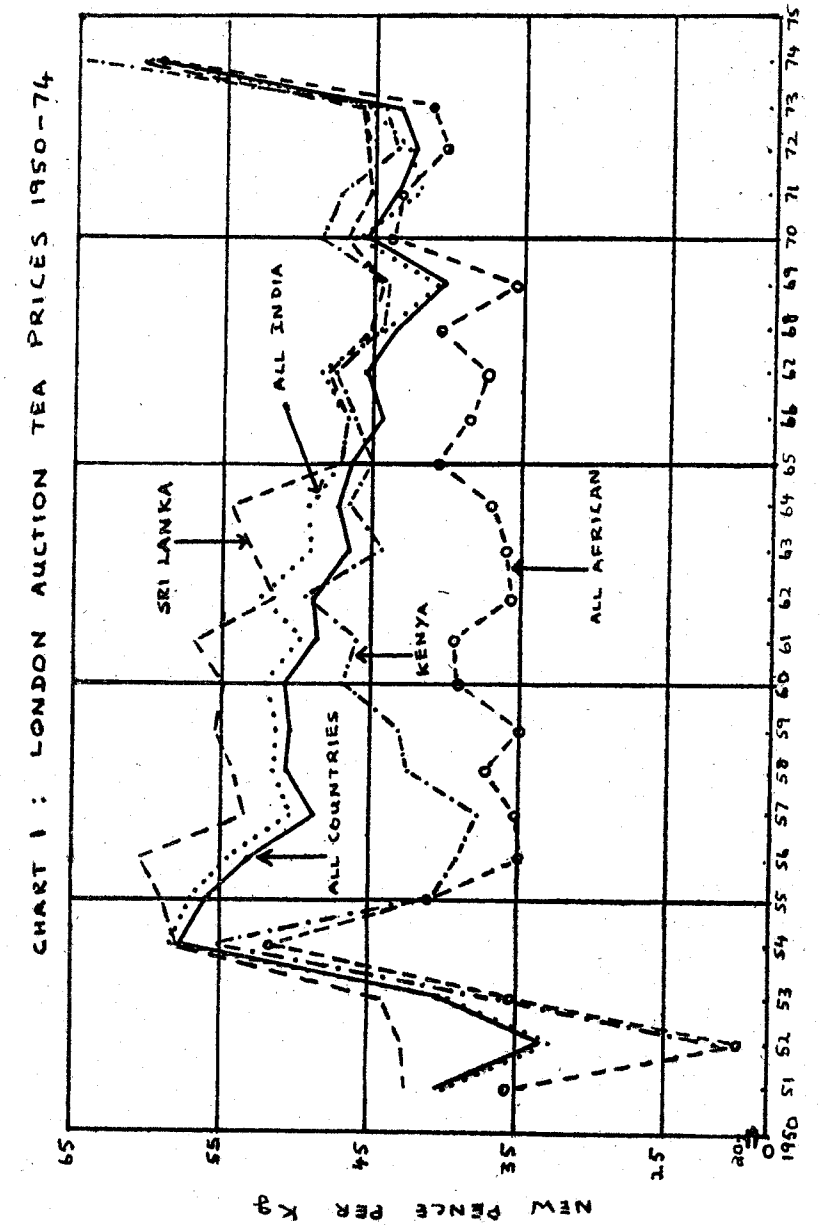
London Auction Prices of Tea of selected countries, 1951–1974

	1951	1952	1953	1954	1955	1956	1957	1958
Sri Lanka	42.3	42.4	44.2	58.3	59.1	60.8	53.4	54.3
India	40.0	32.7	39.7	58.6	57.1	54.8	50.2	51.6
Kenya	—	21.6	36.3	55.2	41.0	39.1	37.9	42.7
All African	35.9	20.2	35.8	51.9	41.2	35.0	35.3	37.3
All Countries	40.3	33.6	40.2	58.1	56.0	53.3	48.9	50.6
	1959	1960	1961	1962	1963	1964	1965	1966
Sri Lanka	55.8	55.0	57.0	51.4	48.1	49.5	47.0	46.7
India	51.4	52.0	49.9	52.5	49.0	49.1	47.0	46.7
Kenya	43.1	47.0	46.0	49.5	44.8	46.7	45.3	46.3
All African	35.0	39.1	39.5	35.8	36.0	37.0	40.7	38.6
All Countries	50.1	50.8	48.6	49.0	46.5	47.2	46.1	44.8
	1967	1968	1969	1970	1971	1972	1973	1974
Sri Lanka	48.0	45.2	44.5	46.9	45.3	45.5	45.6	60.3
India	48.4	44.1	40.8	46.2	42.0	42.7	45.5	60.1
Kenya	47.8	44.7	44.2	48.6	47.3	43.6	44.5	64.7
All African	37.4	40.5	35.6	44.0	43.1	40.3	41.2	59.7
All Countries	45.7	43.5	40.5	45.7	43.3	42.2	43.4	59.9

Source: As for Tables I and II

That Kenyan teas and in general all African teas have suffered less from the trend of falling prices than Sri Lankan and Indian teas is a point that emerges from Table VIII and the corresponding Chart and is worthy of note. The point is ambivalent. It can be used either to weaken or to foster the collaborative efforts of producing countries to obtain fair prices for the teas of all producers.

4. Further discussion of equal and unequal exchange must, however, be postponed to a separate and longer paper which is forthcoming.



(iii) The prices of tea in relation to import purchasing power — which we call the real price of tea and which have been determined by deflating the export price index of tea by the all imports price index — is shown in Table IX.

TABLE IX

Index of Prices for Tea, 1951–74 (1967 = 100)

1951	128.0	1963	131.8
1952	111.8	1964	107.6
1953	119.4	1965	110.0
1954	162.8	1966	107.1
1955	178.3	1967	100.0
1956	162.7	1968	90.5
1957	142.0	1969	80.6
1958	151.9	1970	78.6
1959	147.0	1971	75.3
1960	144.6	1972	79.1
1961	142.7	1973	59.3
1962	148.1	1974	42.7

Source: Central Bank of Ceylon, Annual Report 1974, Table 49.

If this set of data were transposed on a chart, the real import purchasing power of tea will be seen to have fallen much faster than its money price over the same period. It is particularly noteworthy that the sharp rise in money prices for Sri Lankan tea at the London auctions from 45.6 new pence in 1973 to 60.3 new pence in 1974 (a rise of 32.2 per cent) and at the Colombo auctions from Rs. 1.89 in 1973 to Rs. 2.64 in 1974 (a rise of 39.7 per cent) appears as a drastic fall in import purchasing power terms, that is, from 59.3 to 42.7 (a fall of 38.9 per cent).

(iv) A recent UNCTAD report states:

> "The fact that the total supply of tea has expanded more rapidly than world demand, over the last two decades, has manifested itself in a decline in market prices, particularly marked when the price of tea is considered relative to the prices of manufactured goods."[5]

The over-supply of tea is thus often held to be the cause of the fall in prices over the past 20 years. While later in this article

5. *An Integrated Programme for Commodities.* UNCTAD Secretariat, October 1975, p. 24.

the reasons for scepticism about serious over-supply will be adduced, it must here be firmly set down that the institutional approach to an analysis of tea prices should be given at least as much weight as the general equilibrium analysis. Otherwise, what takes place, in the words of another UNCTAD (banana) specialist, is an analysis

> "shrouded in the price fetichism and quantitative analysis of econometric techniques in which social relations of power, dependence and marginalization have been deliberately abstracted by the creation of models that give wrong answers to trivial questions."[6]

What importance the institutional factor has in the world tea economy will be discussed in the next major section of this article.

(v) Except for small quantities of packeted tea, imports of tea into Western countries take place in bulk form. There is thus a spread of prices between the unit price of imports and the retail price to the consumer. A FAO study of 1968[7] assesses the percentage increases of retail price over unit value of imports in importing countries as extending from a low of 19 per cent in Malta to a high of 492 per cent in the U.S.A. Of 25 importing countries selected, 12 recorded a less than 100 per cent increase while 7 recorded a more than 200 per cent increase. It must also be remembered that the unit price of imports includes the costs of transport which also represent revenue to the richer shipping countries of the world.

However, at this stage of our analysis the hypothesis can be put forward for further investigation that the price spread between import and retail represents at least in the Western countries not so much profits as high wage costs.

From preliminary investigations[8] made by the present researcher, it would appear that while labour accounts for less than 19 per cent of the cost of a canteen cup of tea in Sri Lanka, in the U.K. the percentage of total costs per cup borne by labour is 66 per cent.

6. Frederick F. Clairmonte, "The Banana Empire", *Ceres,* FAO Review on Development, January-February 1975, p. 32.
7. FAO. Third Ad Hoc Consultation on Tea. *The Spread of Tea Prices.* November 1968.
8. The method of these investigations will be described in a forthcoming paper.

If, therefore, in the mid-seventies the proportion of retail price to import price seems to be about 2 : 1 in the U.K. and 7 : 1 in the U.S.A., this reflects not so much higher profits in the U.S.A. as higher labour costs.

From the point of view of the producing countries, the important subject for investigation is whether they can enter the sectors of the forward linkage processes, either by establishing some of these processes such as blending, packeting and bagging as a domestic export-oriented industry or in collaboration with processing firms in the importing countries. The question then is whether the producing countries can move forward from the production of Tea I to the more profitable production of Tea II — more profitable still to the producing countries than to the importing countries to the extent that labour costs are lower in the former.

Marketing and Promotion

It is unfortunate that the 1975 Study on the Marketing of Tea commissioned by the Plantation Associations of India in 1973, while at the outset correctly describing the marketing system as "the existing organizational and institutional structure through which teas are currently marketed",[9] later confesses:

> '. . . how it (the ultimate nature and level of consumer demand) and how it is crystallised by the intervening mechanisms is largely difficult to decipher and while the Study Team is of the opinion that it may pay the Indian producer to actually decipher the process, it will take a study of considerable time and cost dimensions, which could not obviously be undertaken by the Study Team.'[10]

The result, however, is not an inconclusive study, but one which "came to the general conclusion that the basic reason for low prices realized did not lie in the institutional arrangements for the marketing of teas . . . that the present system . . . faithfully reflected the underlying configuration of forces of demand and supply . . . found ample evidence that international market prices

9. *Marketing of Tea.* Report on a Study undertaken by a team of Experts sponsored by the Tea Industry (of India) 1975, p. 3.
10. ibid. pp. 15-16.

function much as theory would expect inter-linked competitive markets to behave."[11]

Given its neglect of the institutional factor, it is not difficult to understand why the Study Team could not for instance accept even the possibility that the same set of foreign plantation interests might push up the price of Kenyan teas and push down that of Indian teas.[12] It is also not difficult to understand that the Report was welcomed by plantation interests in Western countries.

The basic elements of the marketing system can be discovered only if its position is investigated in the intricate model of the world economy of tea to which attention has already been called in this article. Basically, the interests of the principal world marketeers of tea are not the same as those of the countries producing tea. The latter want the highest possible price per unit product of Tea I consonant with the highest possible total export value. The former reap their profits from Tea II for which Tea I is merely an input that has to be secured at the lowest possible price. The former are also producers of Tea II. To the extent that they are large firms, producing or having interests in other food and beverage competing products, they are not even overly concerned with the highest possible prices for Tea II (which would enable them to pass on some of the price to the producers of Tea I) and in fact often treat tea as a loss leader — something they are able to do because of the low prices of Tea I.

The complicating factor is the operation of the foreign planting companies in tea producing companies. Surely, it may be argued, these companies look for the highest prices for Tea I in the interest of their own profits. It is here that the interlocking interests of these companies come into play. A foreign planting company may well be satisfied with low prices for Tea I since in any case the low wage costs, as in India and Sri Lanka, or the low tax rates, as in East Africa, still leave a sufficient margin for profits. But if it has links in the trade with the companies producing Tea II, then low profits in Tea I may well be the condition for high profits in Tea II, the high profits in Tea II more than compensating for the low profits in Tea I.

11. *ibid.* p. 101
12. Cf. *ibid.* p. 33.

It is not only the actors and their divergent interests that are of decisive importance in the marketing of tea. The basic marketing institution, namely the auction, is also important. Even the price of tea that is sold outside the auction is fixed in relation to the auction price, and hitherto mainly by the price at the London auction. The correlation of Colombo and London auction prices over the years 1956 to 1974 yields a coefficient of 0.6446, significant at the .01 level. Though there have been in very recent years welcome signs of independent movements of price in the local auctions in producing countries, London is still the chief price-indicator for the world tea economy.

The London auctions (as well as the auctions in producing countries) are by no means a model of a free competitive market. A few buyers dominate the auction room and a few brokers carry out the functions of sale. The entry of new buyers is in practice extremely difficult; for small new buyers nearly impossible. This cannot be avoided when four firms control 80–85 per cent of the retail market in the U.K. which is the world's largest market for tea.

The Indian Plantation Industry Study Team did not find evidence of explicit collusion in the auction to keep down prices. But the bidders are so few and so powerful and have such common areas of interest and social interaction that collusion may be implicit at every stage, indeed may well be so embedded in the system as to be unavoidable, despite the best intentions of the colluders to avoid collusion.

Worthy of note is the increasing shift away from London to auctions in the producing countries themselves. The shift has been a definite one for Sri Lanka tea. During the years 1956–58 while Sri Lanka sent for auction to London 107 thousand metric tons and auctioned in Colombo 387 thousand metric tons, in 1972–74 the amounts were 540 and 64 thousand metric tons respectively. While 21.7 per cent of total auctioned Sri Lanka tea went to London in 1956–58, the percentage had decreased to 10.6 in 1972–74.

An aspect of marketing that is of crucial importance but is often beyond the resources of the producing countries acting alone is promotion. Successful promotion should be geared to effective market research and to the extent that it is successful

must also lead to product development in relation to what the market demands. In all three inter-connected fields the producing countries are at a disadvantage.

Promotion of tea takes place at three levels: generic, uni-national and brand. While each exporting country incurs the costs of uni-national promotion, ten exporting countries also contributed their pro-rata shares (based on the volume of their exports to the U.K.) totalling £150,000 to the generic promotional campaigns of the U.K. Tea Council in each of the years 1972/73 and 1973/74. But whereas for the 1972/73 campaign the U.K. Tea Trade contributed £75,000, in 1973/74 the majority, representing 51 per cent by brand share of the U.K. market and including all but one of the big packers, pleading high costs and low profits, refused to contribute. The refusal continued for the 1974/75 campaign, but under strong pressure from the overseas contributors, the U.K. Tea Trade agreed to provide £15,000 towards the expenses of the Tea Council office and secretariat. These facts throw light on the extent of support the producing countries can expect from the overseas interests controlling the overseas markets.

In the field of product development, the most significant phenomenon has been the high rate of growth in the tea bag market with the resultant loss to the loose or packeted tea market. In the U.S.A., as Table X indicates, the shift away from loose tea to tea bags, instant tea and tea mixes is most dramatic.

TABLE X

U.S. Retail Sales of Tea, 1940–73

(Million lbs.)

Year	*Total Quantity*	*Loose Tea*	*Tea bags*	*Instant Tea*	*Tea mixes*
1940	60	55	5	—	—
1950	70	41	28	0.4	—
1955	80	38	41	0.7	—
1960	86	30	51	5	—
1965	103	23	57	21	2
1970	120	15	62	35	8
1971	127	14	65	37	11
1972	130	13	66	39	13
1973	140	11	68	43	18

Source: Foreign Agriculture Circular. U.S. Department of Agriculture. October 1974. From A. C. Nielsen Company.

A similar shift to tea bags in preference to packeted tea is taking place in several other importing countries, notably the U.K., France, Italy, Denmark.

The outlook for significant progress by Sri Lanka in the fields of promotion, market research and product development does not appear bright. The main problems facing Sri Lanka are shortage of finance and lack of access to information.

In certain countries such as Denmark further progress by Sri Lanka in the tea market depends on whether Sri Lanka is prepared to place on the market high quality tea bags and scented teas. It is in these and similar fields that Sri Lanka scientists, even at undergraduate level, should be encouraged to undertake research and that Sri Lanka's industrial development should in preference take place.

International Regulation

The refrain in the literature concerning the falling prices of tea is nearly always the same:

> 'The experience of an unregulated market since 1955 and the present market prospects show that the basic problem of the world tea market essentially relates to over-production leading to a gradual declining trend in earnings.'[13]

In the view of the present researcher, excess of supply over absorption is not the basic problem. The basic problem of low and falling unit export price is the institutional nature of the world tea economy. The basic problem of falling export earnings in real terms is the rising import price index.

Is there also a problem of over-supply? Table XI suggests that there is a problem but that it does not appear to be a major one, at least over the period indicated. It is also significant that the four years 1970–3, during which supply has always exceeded absorption, preceded the year when money prices took a pronounced turn upwards.

Arguments for over-supply strangely underestimate the importance of factors militating against any such over-supply.

13. Liaqat Ali, "The Regulation of Trade in Tea", *Journal of World Trade Law*, 4 : 4, July-August 1970, p. 578.

TABLE XI

World Supply and Absorption of Tea

(Thousand metric tons)

Year	*Supply*	*Absorption*	*Excess of supply over absorption*
1963	750	753	-3
1964	792	796	-4
1965	814	804	10
1966	825	831	-6
1967	826	840	-14
1968	874	854	20
1969	872	894	-22
1970	911	909	2
1971	943	938	5
1972	994	974	20
1973	1020	966	54
1963–73	9621	9559	62

Source: ITC, ABC, 1975

Chief among these is the rising domestic market in India. Over recent years India has deliberately restricted the domestic market in order to increase export earnings, largely because of the all too easily accepted simplistic view that the more tea is consumed locally, the less is available for export.

However, what matters is not the volume but the value of exports — except of course for employment, which in India need not suffer because the increasing volume will be matched by increasing domestic demand. Hence, if India — in a climate of international association with other developing countries equally pledged to the common task of eliminating world poverty and underdevelopment — could agree to absorb excess supplies into her vast domestic market, not only her own but all others' export prices and values can rise.

There is also the avenue of promotional campaigns in the East African countries themselves, which are the strongest potential contributors to potential chronic over-supply in future years. The per capita consumption of tea in Uganda and Tanzania is comparable to the lowest in the world, while the Kenyan figure of 0.50 kg. per head is far below even the Sri Lankan figure of 1.51. Would it not be possible for the East African countries — again in the interests of all tea producing developing countries as

well as in their own interests — to agree that a proportion of their increasing production should be diverted to their own domestic market and a further proportion to other African markets?

There are several social and political factors besides the strictly economic factors which suggest that Sri Lanka has an important role to play in achieving international agreement over tea among all the producing countries. Sri Lanka is a small country, geographically central, fundamentally non-aligned, with all the problems of underdevelopment, and has figured prominently in international agreements since the first of 1933.

Above all, Sri Lanka, preparing for the repercussions of the nationalization of the tea estates on her own economy, is in a crucial position to work towards a re-structuring of the world tea economy.

BEYOND THE N.C.G.E. WHAT?

E. L. WIJEMANNE

The Social Sciences Section, (Section F), of the Sri Lanka Association for the Advancement of Science held a seminar on the above theme on 30th September 1975 at the Chemistry Lecture Theatre of the Colombo Campus. Of the many seminars organised by Section F of the S.L.A.A.S. during the last few years, it would be correct to say that this was easily the one with the largest attendance. The spacious Chemistry Theatre was filled to more than capacity and quite a few had to follow the proceedings standing outside on the corridor. The gathering of 400 – 500 present was quite representative too. There were heads of schools, class room teachers, University staff, officials from different Ministries and a large number of interested parents. In this note I shall try to briefly report on this seminar and at the same time make some comments on this subject of great topical interest.

The main speaker at the seminar was Mr. Aelian Fernando, the Director Secretary of the United States Educational Foundation. Other speakers were Mr. Bogoda Premaratne, the Commissioner of Examinations, Mr. D. J. Nanayakkara, the Deputy Director of the National Apprenticeship Board and Dr. Kamal Karunanayake, the Registrar of the University of Sri Lanka. Each of the speakers made it clear that he was speaking in his personal capacity and the views he expressed might not necessarily coincide with those of the organisation to which he belonged.

N.C.G.E. Examination and its impact on the new programme in Grades 6 to 9

Mr. Fernando's thesis was that while the new programme of Junior Secondary education in Grades 6 to 9, which commenced with Grade 6 in 1972, was very laudable in design, it ran the risk of failing to achieve its objectives in the implementation. He made

out that this was because firstly, the N.C.G.E. (National Certificate of General Education) examination, that is terminal to the above programme, was being used to select pupils for Senior Secondary education in Grades 10 and 11, and secondly, pupils were being allowed to repeat the course in Grade 9 so that they may have a second attempt, for some even a third attempt, at this examination. In summary his arguments ran thus — What the Ministry of Education has designed for Grades 6 to 9 is an admirable, well balanced, comprehensive curriculum catering very adequately to the multi-faceted development needs of the entirety of the country's up and coming generation. It would be a great tragedy to allow this to get deformed in the implementation. But this is precisely what will happen if as proposed, eligibility to proceed to the new Grade 10 is made conditional on the pupil obtaining at least passes in six subjects (including first language and one of the 2 pre-vocational studies subjects) with two of them at credit level. Pupils, as well as teachers, will pick on a set of six subjects and concentrate on them neglecting the remaining four. Thus the very praise-worthy objective of imparting to the pupils a well balanced, comprehensive education through the new Junior Secondary curriculum will be defeated. Integrated teaching across the 10 subjects in the curriculum, one of its redeeming features, too will be weakened.

The provision available for pupils to repeat the grade in Grade 9 will further aggravate matters. Repeaters, as well as their teachers, are likely to commit the above mentioned sins against this wholesome curriculum even to a greater degree than the non-repeaters. Schools will have serious problems of indiscipline because of these repeaters. To quote Mr. Fernando verbatim "If I were a teacher and were asked to take one of these repeat Grade 9 classes, I would give up teaching in sheer disgust."

What remedies does Mr. Fernando propose? In summary his suggestions are as follows:

1. Drop the proposal to make some specified performance (six passes with two credits) at the N.C.G.E. examination the sole basis for determining eligibility to proceed to Senior Secondary education in Grade 10.
2. Disallow the repeat year/years in Grade 9.
3. Introduce a Grade 10 for *all* pupils completing Grade 9.

The diagram on page 26 taken from what Mr. Fernando put up on the blackboard at the Seminar gives details in regard to this significant new idea.

4. In this Grade 10 all pupils will study a set of six academic subjects - Sinhala/Tamil, English, Mathematics, Science, Social Studies and Economics - two days in the week and the remaining three days will be utilised for *Project Education* in out of school, actual, work places as observers, apprentices, under-studies, etc.

5. The design and the organisation of the work in this new Grade 10 should be entrusted to a newly created department - Department of Tertiary Education - within the Ministry of Education. This Department will have Regional Units for the design, siting, organisation and administration of the "Project Education" component of the programme which takes up 60% of the total time. Several Ministries, namely, those of Education, Labour, Agriculture, Industries and Planning & Economic Affairs, will be actively involved in this work.

6. The N.C.G.E. certificate will record not only the pupil's performance at the final examination held at the end of Grade 9 but also his performance in tests administered throughout the 4 year course in Grades 6 to 9. An average grading derived from the marks of all these tests and the final examination will also be given in the N.C.G.E. certificate.

7. While the pupils are in Grade 10 a number of achievement tests and aptitude tests will be administered to them.

8. Eligibility to proceed to Senior Secondary education should be determined on the basis of -

   (a) performance in all the tests given in Grades 6 to 9;

   (b) the performance at the final examination of the Junior Secondary course which will be held at the end of Grade 9, i.e. the proposed N.C.G.E. examination;

(c) performance in achievement and aptitude tests given in Grade 10;

(d) performance in Grade 10. (It is presumed that this refers to both the "Project Education" component as well as the six academic subjects taught in Grade 10).

Entry Requirements for Senior Secondary Education

Mr. Bogoda Premaratne, who followed Mr. Fernando, explained the minimum performance at the N.C.G.E. examination that a pupil has to reach to qualify to proceed to Senior Secondary education in the new Grade 10. He compared these with the parallel requirements that a pupil has to have at the G.C.E. (O.L.) examination in order to qualify for entry to the present Grade 11, the G.C.E. (A.L.) Prep class in school. He explained that at the N.C.G.E. examination, the results will be on a five point scale – A, B, C, D and E and on this scale, the C grade, as the third in a 5-point scale, would be comparable to the S grade which indicates an Ordinary pass in the G.C.E. (O.L.) examination. Similarly the B grade at the N.C.G.E. examination, as the second in the 5-point scale, would compare with the C grade which stands for a Credit pass at the G.C.E. (O.L.) examination.

The 100,000 who would leave school after the N.C.G.E.

Mr. Nanayakkara, who followed Mr. Premaratne, in his opening comments complained that the two previous speakers had failed to focus their attention on the main theme of the seminar – namely, "What would be the fate of those who fail to proceed to Senior Secondary education on the results of the N.C.G.E. examination?" He emphasised the following points –

1. The new Junior Secondary education programme in Grades 6 to 9 was easily the best programme of general education designed thus far in our country. But it has to be recognised that it was not vocational education. It was general education and its purpose was, to quote Mr. Nanayakkara's own words, "social betterment and personal advancement".

2. Annually about 100,000 pupils will be leaving the school system at this point.

3. They will be in the age range of 14 to 16 years and therefore too young for employment. In our country youngsters do not get employed until they are 18 to 19 years old. Therefore between the time of leaving school and getting employed, for these 100,000 adolescents there would be an intervening period of about 3 years.

4. What these 100,000 would need, to equip them to enter the world of work, is not more of cognitive skills but increased facilities in psychomotor and affective domains, i.e. vocational skills, both the basic ones as well as those relevant to available vocations and an ability to sustain positive attitudes towards work even under difficult conditions.

5. Formal vocational training of the type that is given in technical institutions would not be feasible for such large numbers owing to the high costs involved. (Facilities to accommodate an annual intake of 160 trainees in a 4 year programme at the C.T.B. Technical Training School costs as much as 2 million Deutche Marks.)

6. Lots of facilities such as school buildings, school teachers, technical institutes, etc. which could be harnessed for a large-scale national programme of vocational training of this nature remain underutilised today. School buildings were being utilised in Hongkong for three shifts – morning school, afternoon school and night school. Mr. Nanayakkara's own organisation, the National Apprenticeship Board, has organised the training of 4,000 apprentices without any training plant of its own, utilising a variety of production plant, both public as well as private, for practical training and technical institutions etc. for instruction in theory.

7. There is ample room in some employment avenues into which these young men and women could be chanelled. He referred as an instance to the retail trade in which there is plenty of scope and mentioned the Jathika Pola where large numbers of petty retail traders earn a living.

Mr. Nanayakkara said that he was not expounding a detailed programme of vocational training to meet the needs of this very large number; all he was doing was highlighting the need to take care of this vast annual output from the school system. He was also indicating a type of training that might usefully be given them together with some of the already existing agencies that may be harnessed for the purpose.

In conclusion he emphasised that in his opinion this was a very high priority area calling for urgent action.

Need for basic curricular reforms at the University

Dr. Kamal Karunanayake, who was the last speaker, deplored the rigidity of the courses of studies provided in our University. He said changes were taking place, but the pace at which we were moving was woefully inadequate. He cited the example of China and described the case of the barefoot doctor of that country. In contrast in our country, we refuse to shift one bit from the 5 year undergraduate course in Medicine for fear that that our standards, in comparison to those of the West, will fall while large numbers of hospitals continue to remain under-staffed for want of doctors. He was of opinion that the present pattern of University education, where 90% of the teaching is concentrated on Undergraduate courses, should change radically. There should be a variety of courses of varying duration leading not necessarily to Degrees but to Certificates and Diplomas. These should cater to the specialised training needs of the country's plans for national development. The entrance requirements for these courses should be made flexible.

Comments

The office bearers of Section F of the S.L.A.A.S. fully deserve to be complimented both for their salesmanship – finding such an arresting title for the theme of the seminar – as well as for the selection of such a competent panel of speakers for the occasion.

Coming to the proceedings of the seminar, for convenience of commenting, I would identify four areas of interest into which the subject matter of the day's proceedings could be divided. To be sure, they are related to each other, some more closely than others.

1. A concern for the 100,000 pupils who, unable to qualify for Senior Secondary education, are obliged to leave school at the end of Grade 9 each year. They have not had any vocational training. They would be in the age range 14 to 16 years and therefore would have about 3 years to go before they come of age for employment. What programmes of vocational training would be appropriate for this very large number and how can these be organised?.

2. The innovative idea of a grade 10 for all pupils with a heavy component of "Project Education" in which the pupils work in actual work places as observers, apprentices, under-studies, etc. This is to be the responsibility of a new Department of Tertiary Education within the Ministry of Education working in close collaboration with several other Ministries such as Agriculture, Industry, Labour, Planning and Economic Affairs.

3. The fear that the new Junior Secondary education programme in grades 6 to 9 would fail to achieve its objectives owing to the N.C.G.E. examination being utilised as the sole instrument for the selection of pupils for Senior Secondary education. Remedial measures to prevent or at least minimise this.

4. The need for our University to change its teaching programme by organising a variety of courses not necessarily at the Undergraduate level, catering to the development needs of the country.

The 100,000 that leave school after the N.C.G.E. Examination

About 100,000 annually leave school at the end of grade 10 when they fail to obtain the necessary credit requirements at the G.C.E.(O.L.) exam to proceed to grade 11. Similarly the number leaving school annually at the end of grade 9 after sitting the new N.C.G.E. examination is likely to be of the same order. This certainly is a very large annual output, but this is not the only point at which pupils leave our school system. Table I below gives the numbers of pupils that left school from the various grades during the year 1.3.74 to 28.2.75:

TABLE I

Numbers of Pupils Leaving School by Grade

Grade	*Number leaving School (approximate)*	*As % of enrolment in grade*
1	8,000	2.2
2	15,500	5.2
3	24,000	11.2
4	36,000	11.2
5	34,000	12.4
6	28,500	12.4
7	25,000	12.0
8	19,500	12.0
9	2,000	—
10	100,000 – (30,000 with the minimum of 5 passes including the 2 compulsories at the G.C.E. (O.L.) examination and 70,000 without this)	38
11	None	
12	8,000 – (2000 with 3 or 4 passes at the G.C.E.(A.L.) examination)	

Source: School Census 1974 & 1975.

Table II below gives the age distribution of the numbers leaving school (this data is for the previous year, i.e. 1.3.73 to 28.2.74).

TABLE II

Numbers of Pupils Leaving School by Age – 1973/74

Age	*Number leaving School (approximate)*
9 yrs	11,000
10 „	2,000
11 „	30,500
12 „	33,000
13 „	36,500
14 „	32,500
15 „	27,000
16 „	38,000
17 „	44,000
18 „	24,000
19 „	11,000

Source: School Census 1973 & 1974.

These tables show that pupils drop out from our school system all along the grades and at all ages. On the basis of the length of schooling, school leavers can be divided into the following 4 groups:

(i) 85,000 leave school without completing Primary education
(ii) 110,000 from the middle school
(iii) 100,000 from grade 10 and finally
(iv) 10,000 from grade 12.

Similarly, age-wise, 3 groups of school leavers can be identified.

(i) 130,000 in the age group 9 – 14 years
(ii) 100,000 in the age group 14 – 17 years and
(iii) 80,000 in the age group 17 – 20 years.

It would be useful to have groupings based on both these factors i.e., length of schooling and age but available data does not permit this. Further break-down of school leavers on the basis of districts, sex, socio-economic status, etc., would help us understand better this output from the formal education system.

It will be seen that the 100,000 who presently leave school from grade 10 after sitting the G.C.E.(O.L.) examination (in the new order of things will leave school from grade 9 after sitting the N.C.G.E. examination) is only a part of the school leavers – a large part though it be. Mr. Nanayakkara was emphatic that this 100,000 deserve high priority in the matter of post-school vocational training. This would imply that they should be given precedence over the other 3 groups – namely the 85,000 leaving school from the Primary grades, the 110,000 leaving school from the middle school grades and the 10,000 leaving from grade 12. On what basis does he claim this? There is the fact that this 100,000 and the 10,000 leaving from grade 12/11, unlike the other 2 groups, leave school not voluntarily on their own. This 100,000 is obliged to leave because they fail to qualify to go to the G.C.E.(A.L.)/H.N.C.E. grade on the results of the G.C.E.(O.L.) N.C.G.E. examination and the 10,000 is obliged to stop formal education when they fail to gain admission to the University on the results of the G.C.E.(A.L.)/H.N.C.E. examination. By contrast, the other 2 groups, leaving from the Primary grades and the Middle school grades, do so voluntarily on their own accord. On this count too one can argue that a

"helping hand" is needed more by the 2 groups leaving from the top end of the school system. As against this there is the fact that while these 2 groups have had at least 11 years and 13 years (repeat year allowed in grade 10/12 included), of schooling at state expense, the other 2 groups have received much less.

A little recentering of perspectives shows us that a more helpful way of looking at this problem would be to approach it from the perspective of employment rather than that of exit from school. What difference does that make? To begin with it raises doubts about the validity of our starting point itself, the basis on which we have identified our group of 100,000. We, who are seeped in formal education systems, are so much prone to accepting school performance as a measure of a youngster's potential for most purposes that in this instance too we tend to use it as the basis. Furthermore, we educationists have a common weakness, a readiness to prescribe simple solutions to complex problems often guided solely by criteria of social justice without examining relevant empirical data, and what goes on in related parts of the real world outside our domain of formal education. We have to guard against committing this mistake in this instance too.

The main objective of any programme of vocational training for school leavers would be to help them obtain employment. This is something that is happening all the time. What we want to do is to speed it up and also broaden its scope. In particular we need to know what vocational training can do to help achieve this objective. For this should we not begin by examining whatever relevant data that is available and also the process as it occurs at present and from there proceed to see how the process can be expanded and made more efficient?

It is not all school leavers that come into the labour force. While it is true that among the younger age groups more and more women are entering the labour force, for the age group 15 – 59 years, the labour force participation rate for women is 33 as compared with 85 for men. Of the 100,000 we have reckoned as leaving school at grade 10 half will be females and of them a fair proportion will stay out of the labour force. Table III below gives the age specific labour force participation rates for the two sexes for the age range in which we are interested.

TABLE III

Labour Force Participation Rates 1973

	Urban		*Rural*		*All Island*	
Age	*M*	*F*	*M*	*F*	*M*	*F*
14	3.3	3.1	10.8	11.0	10.9	12.2
15	10.5	11.1	24.0	12.7	22.6	15.2
16	15.6	24.1	27.9	26.5	26.5	31.3
17	34.5	25.9	49.2	34.2	46.8	35.3
18	50.0	59.5	54.3	43.6	54.2	49.8
19	60.0	52.9	64.2	51.4	64.9	54.2
20–24	75.0	65.1	84.7	62.9	83.0	66.9
30–34	98.7	89.9	96.1	84.1	96.9	86.7
Total	48.3	41.9	48.4	38.6	48.8	40.7

Source: Central Bank: Determinants of Labour Force Participation, 1973.

This table shows that even at the age of 14 years about 10% of the population is already working or available for work. By 17 years this has gone up to 40% and to almost 60% by 19 years. Generally in each of these groups the proportion of females entering the labour force is not much lower than that for males. The statement that our youngsters are not willing to take up employment till they are 18 to 19 years old does not appear to be totally correct.

Table IV on page 35 gives labour force participation rates by age, sex and education level. As one would expect this table shows that in the lower age groups participation rates are higher for those with lower levels of education. For those with middle school (grades 6 to 10 but not completed S.S.C.) and Secondary education (completed S.S.C.) the participation rate rises steeply from about 18 at 16 years through 30 at 17 years to 50 at 19 years.

Table V on page 36 gives the unemployment rates by Age, Sex and Education levels.

This table shows that a youngster of the age group 15 to 19 years with Middle School or Secondary Education has not even a fifty fifty chance of finding employment.

For purposes of planning vocational training for school leavers it is equally important to ascertain the distribution of this unemployed youth across the districts.

TABLE IV

Labour Force Participation Rates by Age, Sex and Education level, 1973

	14 *yrs*		15 *yrs*		16 *yrs*		17 *yrs*		18 *yrs*		19 *yrs*		20 – 24 *yrs*	
Education level	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Illiterate	13.3	21.4	46.7	23.5	50.0	18.2	75.0	53.6	85.7	60.0	92.3	54.6	90.7	72.7
Literate below Primary Education	20.7	23.3	40.5	34.8	50.0	42.9	74.4	52.4	64.1	65.0	83.3	52.2	84.9	68.1
Primary Education	11.4	16.3	24.3	15.4	32.0	37.1	67.7	34.8	64.9	62.5	75.9	67.6	87.6	66.9
Middle School	4.6	5.4	11.8	9.1	17.7	18.2	33.2	26.9	39.4	36.0	51.3	50.0	80.7	59.4
Secondary Education	14.3	—	5.4	4.2	3.5	20.0	21.2	32.0	45.5	37.1	45.2	48.8	79.8	71.6

Source: Central Bank. Determinants of Labour Force Participation – 1973.

TABLE V

Unemployment Rates (as % of Labour Force) by Age, Sex and Education Level

Education Level	14 yrs		15 yrs		16 yrs		17 yrs		18 yrs		19 yrs		20–24 yrs		25–29 yrs	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Illiterate	—	—	28.6	25.0	—	25.0	11.1	42.9	—	13.3	16.7	16.7	5.1	8.9	3.3	—
Literate below Primary Education	33.3	28.6	13.3	37.5	16.7	20.0	46.7	36.4	16.0	26.9	25.0	16.7	20.2	11.3	6.0	4.1
Primary Education	87.5	12.5	22.2	16.7	25.0	69.2	34.8	37.5	40.5	24.0	36.4	30.4	21.3	11.9	13.3	5.3
Middle School	—	50.0	100.0	16.7	54.6	40.0	61.1	50.0	53.6	55.6	63.2	56.4	37.6	37.7	12.7	20.3
Secondary Education	100.0	—	100.0	80.0	100.0	100.0	100.0	86.7	70.0	65.0	85.7	75.0	47.2	62.4	25.9	33.7

Source: Central Bank – Determinants of Labour Force Participation – 1973.

Table VI gives the unemployment rates for the total population district-wise.

TABLE VI

Unemployed by District, Census 1971

	Districts	*Percentage of Labour force unemployed*			*Number unemployed*		
		Total	*Male*	*Female*	*Total*	*Male*	*Female*
	Sri Lanka	18.7	14.3	31.1	839264	474065	365199
1.	Colombo	26.6	19.6	50.4	259315	147395	111920
2.	Kalutara	26.2	19.8	42.4	69502	37360	32142
3.	Galle	26.2	19.6	40.3	68539	34865	33674
4.	Kegalle	23.1	18.1	35.9	52440	29744	22696
5.	Matara	21.4	15.5	34.8	41879	21119	20760
6.	Kandy	18.0	14.9	24.2	81181	44765	36416
7.	Ratnapura	16.7	13.3	24.5	42921	23865	19056
8.	Hambantota	16.2	11.6	34.8	16890	9661	7229
9.	Puttalam	14.3	10.1	30.1	18756	10467	8289
10.	Kurunegala	14.2	10.4	25.3	50143	27205	22938
11.	Badulla	13.8	12.4	16.5	32473	18675	13798
12.	Jaffna	12.6	10.2	31.8	23716	17140	6576
13.	Polonnaruwa	11.8	8.7	29.0	6765	4269	2496
14.	Trincomalee	11.5	10.0	7.1	6526	5203	323
15.	Amparai	11.2	8.8	34.0	8722	6257	2465
16.	Matale	10.7	9.0	15.1	12105	7194	4911
17.	Nuwara Eliya	10.3	10.5	10.2	21207	12518	8689
18.	Moneragala	10.3	8.1	19.6	6442	4059	2383
19.	Batticaloa	8.8	7.0	31.1	6352	4636	1716
20.	Anuradhapura	7.2	5.2	12.5	10412	5427	4985
21.	Mannar	5.5	4.8	19.0	1329	1082	247
22.	Vavuniya	5.2	4.0	17.2	1649	1159	490

Source: 1971 Census.

This table shows that unemployment rates vary from 26% in Colombo, Kalutara, Galle districts on the South west coast to 10% or less in the dry zone agricultural district. The rest of the wet zone districts appear to lie in between. It is important to find out whether this distribution pattern holds for young men and women with Secondary Education and Middle School education as well. If it were so in designing programmes for school leavers we have to concentrate heavily on the wet zone coastal districts. In these districts the pressure on arable land is very heavy and the size of average agricultural holding very small and therefore the scope for generating employment in the agriculture sector is minimal. To what extent has this position changed with the implementation of the land reforms? If on the other hand the incidence of unemployment among young men and women with Middle School

and Secondary Education is as heavy in districts such as Anuradhapura, Moneragala and Amparai as in Kalutara and Galle the design of programmes of vocational training for school leavers in the former districts may have to be guided by the answer to the question as to why these youngsters shy away from agriculture in spite of everything that the government is doing to draw them towards it. Or is it that even in these areas, in spite of their much larger size of agricultural holdings, there is no organized programme to assimilate the school leavers into agriculture?

This leads us to recognise that in addition to the above type of macro analysis involving school leavers, their characteristics, their entry into the labour force and the distribution of these features across the districts we need to look closely into the process itself – the manner in which the school leaver, so to say, moves on the path from the 'school gate' to the work place. Clearly this route is not alike for all school leavers nor for all categories of employment. It would vary widely from the formal recruitment to a permanent post in a large manufacturing firm in the suburbs of Colombo through enrolment in a Janawasa collective farm, through the handy boy-apprenticeship at the wayside motor repair shop to the gradual take over of a share of the family agricultural work from the father. What can vocational educational and training do to initiate school leavers into these different routes and to speed up the progress of those already initiated along these different routes to stable employment? What strikes one straightaway is the fact that the agency responsible for employment creation and economic development at the local level would be the body best suited to undertake the organization and administration of this type of vocational education and training because these have to tie up not only at the design stage but also at the implementation stage with the local development programmes. This would enable bringing under scrutiny within one folder in a rational way the formally organized training class, the non formal education given by extension workers etc. and also the informal learning that occurs in, for instance, the family farm or the wayside garage, thus conforming to one of the most important principles of new education.

The groundwork for the establishment of such a network of local vocational education and training organisations as the training wings of development agencies has already been laid in our country.

The Divisional Development Councils are there as the agencies already entrusted with employment creation and local economic development. The Ministry of Education has through its new programme of Junior Secondary education (grades 6 to 9) initiated the youngster into some vocations that obtain in the area. His studies in Natural Resources of the Country, Social Studies, Science, etc. have related these subjects to whatever employment avenues that may be there in the locality. Furthermore, during the last two years the Ministry of Education has been trying out on a pilot basis vocational training programmes for school leavers using during after school hours teachers, School workshops, buildings, etc. Under this programme already in 125 schools all over the country, 3500 youngsters, both males and females, are following vocational training programmes of about 6 months duration in 62 different subjects. The Ministry is alive to the fact that if the training imparted in these programmes is to be utilised adequately they should be closely linked to the work of the Divisional Development Councils. With this in view the Ministry has already initiated action to bring about this liaison between these vocational training programmes for school leavers and Divisional Development Councils. Such collaboration is bound to have a valuable feed-back on the in-school programmes themselves, in particular on the Pre-Vocational Studies programme in grades 6 to 9 in which local vocational content as well as personnel should figure prominently.

(To be continued – the other 3 issues that came up at the Seminar will be discussed in a continuation of this article)

ALTERNATIVE STRATEGIES FOR EMPLOYMENT-ORIENTED AGRICULTURAL PROJECTS*

RALPH PIERIS

Expansion of the service sector has been one of the most remarkable features of economic development, and has been considered to be productive of social changes more far-reaching than those brought about by the industrial revolution. Post-industrial societies — that is, those in which more than one half of economic activity, whether measured by value of product or distribution of the labour force is devoted to services (Bell: 1967) are rare in Asia, and only Singapore (owing to her exceptional position as a city-state) and Japan have attained that status.

TABLE I

Percentage Distribution of the Economically Active Population in Twelve Asian Countries

		Agriculture	*Mining Manufacture Construction*	*Service (inc. transport)*
Singapore	(1957)	8.4	19.6	70.2
Japan	(1963)	24.3	31.9	42.4
Ceylon	(1963)	48.6†	11.9	26.8
Philippines	(1965)	52.7	13.4	23.2
Iran	(1966)	41.8	23.7	23.2
Indonesia	(1969)	67.2	7.1	22.3
Malaysia	(1960)	71.17	7.7	19.2
Pakistan	(1968)	69.1	11.6	18.0
India	(1961)	72.9	11.1	14.3
Cambodia	(1962)	80.3	3.7	14.5
Thailand	(1960)	82.0	4.1	11.6
Nepal	(1961)	93.8	2.0	3.4

Source: ILO (1971)

†Other sources, including the 1968 Labour Force Survey, estimate the agricultural workforce as 55%.

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The reduction of persons engaged in agriculture in post-industrial societies has been the result of higher agricultural productivity, itself made possible by technification and economies of organization and scale ("The tractor is for agriculture what the steam engine was for the industrial revolution." Dumont: 1957, 516). This contrasts with societies based on subsistence agriculture.

Whereas in the traditional agriculture of Asia and Africa 2.5 to 10 workdays (of 8 hours per day) were required to produce 1 cwt. of grain, only 0.4 was required in Western France, and only 6–12 minutes in the American midwest. In 1820 the American farmer produced 4 times his own consumption, a century later his production doubled, and continued to increase progressively until in 1968 a single farmer should supply food for 43 persons, so that only 6 per cent of labour force was sufficient to meet agricultural requirements. During this time farmers' incomes were constantly rising, and they enjoyed the best urban amenities (Weitz: 1970 7–8).

This progressive expansion of the service sector is correlated with increased urbanization, literacy and media participation (newspapers, radio, cinema, TV), literacy in particular being the basic personal skill underlying modernization of life-styles, generating new attitudes and desires. Lerner (1957) maintains that there should be a critical minimum of 10 per cent of the population of a given country living in towns of over 50,000 for progress in the direction of modernization. That irrevocable step towards post-industrial society has already been taken in some Asian countries, including Sri Lanka, although frequently concentrated in a single primate city. But the fact of this achievement in small countries should not imply that it is easily achieved: some countries, after 25 years of effort in adult literacy programmes etc. have failed to increase their literacy rates beyond 25 per cent. But where literacy is high, particularly in small countries well provided with transport and communications, the values of the Centre percolate more easily to the rural periphery. In the circumstances, the collective will to tolerate austerity and unemployment is absent, nor is there a willingness to accept the near-subsistence farm as the basis of social and economic life. These non-economic factors are constraints to the feasibility of plans for small scale agriculture: the stage has been set for the technification of agriculture.

To repeat: in post-industrial societies, the surplus food produced by a small minority sufficed not only to feed the majority, but

also left a surplus for export. Clearly, this could not happen if the food requirements of a grain-eating people are 200 kg. per year per head, and one man fully at work produced barely sufficient to feed two people — a situation described as "the very limit of subsistence" (Clark: 1960, 325). But it was the normal condition of many societies since prehistoric times. Neolithic barbarism was rooted in self-contained villages not yet in sufficient control of their environment to produce more than minimal surpluses. But metallurgical technology made possible the production of improved agricultural implements and the consequent increase of productivity destroyed the self-sufficient neolithic base, and paved the way for the development of trade and the growth of urban settlements. According to archaeological evidence historic farmers were already producing a sufficient surplus to support a considerable tertiary sector, including pyramid builders, artists and craftsmen, morticians, priests and bureaucrats. (Childe: 1957) But in the process of this "retreat" from agriculture, unemployment has been experienced by many countries (aggravated by population increase) at times in such magnitudes that extreme solutions have been resorted to. Sri Lanka is a prominent example.

Social resistance to mechanization and technological change has been inspired by the unemployment visibly caused by machines, as in the case of handloom weavers in North England who were smashing up textile machinery, burning factories and assaulting factory managers in 1810. The authorities deployed 12,000 soldiers against this Luddite movement to force technological regression in the interests of employment, and so successfully was it suppressed that fifty years later handicraft weavers numbered only 10,000 while factories employed fifty times that number. Technological regression is a deceptively simple, short-run strategy to "make" work for people who would otherwise be displaced by mechanization or rationalization. It is interesting to reflect that both Germany and Japan, now complaining of acute labour shortages, were riddled by problems of mass unemployment before World War II. Japanese emigration to Hawaii and the west coast of the United States was a response to unemployment, as was the emergence of Fascism and military mobilization in Hitler's Germany. The following statement by the Cambodian delegate to the ILO Technical Workshop in Bangkok early in 1972 is therefore significant. "However grim my views on this paper may appear, the

war has beneficial aspects *for the time being;* it makes for a temporary absorption of the unemployed" (ILO 1972). This may appear a simple solution — we can "solve" unemployment in Sri Lanka by mobilizing any army of half a million. But they have to be fed, clothed and housed (foreign aid for such a military build-up, which in any case goes against our political grain, must be ruled out because of our policy of non-alignment). A self-supporting army has been advocated by Chairman Mao in China. But without a military build-up, other strategies must be considered. It is significant that post-war Germany (without a military build-up) is experiencing such a shortage of labour that she has sponsored the immigration of thousands of Indonesian and Korean workers who are given crash courses in German at home and assured of jobs in industry after arrival. How has this been possible? Post-industrial society has been able to support an ever-increasing number of workers in the service sector, precisely because of progressive and synchronised increase of productivity in agriculture and industry.

The distinction between productive and non-productive labour has a long history in economic thought. It appears in the writings of the physiocrats in France, in Adam Smith and in socialist writing of Robert Owen and others. Although non-productive, many of these persons were considered "necessary" for the working of a civilized society, for the preservation and transmission of culture, for defence and security. It was only vagabonds and criminals who were considered an unnecessary burden. So one might argue that the essence of economic development was the release of as many people as possible from directly productive activity, to develop the fine arts and "culture" generally, as well as more mundane services. The multiplication of the tertiary sector is a self-generating process, as Professor Parkinson has shown. The mechanization of industry, facilitating modern mass-production contributed to economize manpower which was freed to engage in other occupations. In the transitional period the spectre of unemployment was always present — there was a time-lag before the surplus production of industry and agriculture could be diverted to support the tertiary sector and, above all the peasant pushed out of the familiar surroundings of his village is not always psychologically ready to leave home and take any kind of work anywhere, even if wages offered are higher than he can earn by remaining at home. This was the case in Ceylon — there is evidence that

villagers were displaced when large tracts of land were appropriated for coffee and tea plantations in the last century, but they did not offer themselves as wage-labourers, and the planters had to resort to importing cheap labour from south India. Resistance to urban employment is now broken by modern values and attitudes resulting from literacy and education generally.

I now come to the substance of this paper namely the evaluation of an employment-oriented agricultural project. Since the "projects" — if they can be called projects — are still in the experimental stage, it is too early to evaluate them. I prefer rather to consider two alternative strategies for agricultural employment, in the context of the wider issues I have already discussed. One is a short-term strategy for making work by resort to organizational and technological regression, that is, creating small-holdings operated by the family unit, without hiring outside labour (ILO 1971) on slender statistical evidence that organic manure was applied to 9 per cent of paddy holdings below 2.5 acres but only to 5 per cent above 10 acres. *(ibid* 92). "There is more land to go round than is often believed" to make such redistribution possible *(ibid.,* 95). Apart from the consideration of employment generated and the saving of foreign exchange on imported agricultural machinery, there are other unstated reasons for preferring small scale holdings. It is easier to contain rural unrest within the framework of the traditional village as no labour organization or effective political articulation is possible in the manner of urban labour movements. The preservation of microfundia is therefore favoured by many politicians as a popular measure. Above all, of course, it appears to be an easy "solution" to rural unemployment to have labour-intensive small farms. Theoretically there is no limit to intensiveness of labour. We can dispense with the tractor and use the buffalo-drawn plough. We can go further — if 10 people use spades for moving earth, we can employ 1000 by using teaspoons. This is not entirely far-fetched. Once we are in the realm of agricultural primitivism it is only a step to the ridiculous. I quote the ILO report which in all seriousness recommends to the Government that "it might have some dramatic effect, for example, if all unused house lots, and all gardens above a certain size in Colombo and other towns were temporarily requisitioned and provided as allotment gardens to the unemployed, so that throughout Colombo there were notices which said that the land had been requisitioned to grow chillies to save foreign exchange. Many more such devices might be thought of" (ILO 1971, 165–166). My argument is that we "freeze" the economy at near subsistence levels by adopting a short-term strategy for making work for the unemployed in response to political pressures which have become more urgent after the insurgency which is alleged to have been "caused" by the insurgency — in fact, this is a matter of doubt and official statements declared that many insurgents were employed.

It may be worth while at this point to consider the basis o estimates of unemployment. Aspirations in Sri Lanka are geare to the "ideal" of a white-collar job and the whole system of education modelled in response to social demand, has been an instrument of upward mobility. In the fifties education was the highway leading from rural poverty to relative affluence: the village boy, educated in a central school could enter the university and become a teacher, if not a civil servant (Uswatte Aratchy 1972). By 1970 the highway ended in a blind alley, with some 7000 unemployed graduates. But although the economy could not support an unlimited expansion of the service sector, politicians assumed that everyone who had the capacity should not be denied educational facilities. It was only after 1970 that it came to be acknowledged that the education system had to be remodelled to match employment opportunities, and the reckless promise of unlimited and lucrative white-collar jobs is no longer held out. But the image of the good life, as lived by the westernized elite still remains. In his budget speech of 1972, the Minister of Finance disclosed that of the recurrent expenditure of 3000 million rupees the emolument bill alone was 1300. Yet the lower ranks were bound to be dissatisfied.

> We cannot without serious hardship start lopping off from those who have enjoyed certain salary scales. But we must draw in reins and not allow the salaries to gallop away with the rider. We must also halt the false standards that have been built up. All newcomers must be made to reconcile themselves to much lower scales of salary. 'All are entitled to reasonable comforts. But we cannot promote a false level of luxurious living.

Unfortunately the false level is the ultimate goal of many, and introduces a bias to questionnaires concerning unemployment.

Those who are dissatisfied with their present occupation invariably say that they are unemployed for they are always on the lookout for a "better" job.

Above all, in the rural sector, outside periods of intense activity (when nobody has time to answer questionnaires) the villager with vague hopes of escaping the destiny of subsistence agriculture will say that he is unemployed. At such times miscellaneous jobs are undertaken, thatching houses with the paddy straw after each harvest etc. The preoccupation with under-employment *per se* is therefore unjustified. If a man earns enough by working 6 months in a year fulltime, it is academic to ask whether or not he is under-employed. Moreover, the household being the economic unit, it has been rightly suggested that a family-income approach to the classification of the workforce is necessary (Lockwood: 1972). In fact unemployment is not really desperate for many people, and conditions in Sri Lanka are better than in western Europe at the time of the industrial revolution. For one thing the free rice ration and various social services make starvation exceptional, though poverty no doubt remains. Otherwise there would have been a greater willingness to take up jobs at present despised, e.g. toddy tapping, plantation work etc. If we approach the problem from the point of view of income rather than workdays, it must be borne in mind that the rural domestic budget is only partly monetized. Apart from the ration and services obtained in kind, direct production of subsidiary crops etc., not to mention payments for casual work, are not reckoned with in the domestic budget. The ILO report however tends to regard man-hour, rather than income and productivity as an absolute criterion, when it states:

> Under tropical conditions, an adult on a Ceylonese diet might be expected to work efficiently, without unreasonable strain or discomfort for perhaps 1500 to 2000 hours a year. Much less than this represents a waste of potential output *(ibid.,* 20n*)*

It is not stated whether a dockworker, a peasant and an office boy must all work efficiently for the same number of hours on the same "Ceylonese" diet. There is really no waste of potential output if the office boy works shorter hours! Surely, "the basic purpose of the economy is to create income, not jobs" (Oshima: 1972)

Let me go back to the strategy of creating employment by multiplying the number of family farms. Can we now ask people to go back to the self-sufficient farm, located in areas lacking the amenities of the town? The *Communist Manifesto,* in an inspired phrase refers to the idiocy of rural life. When we idealize the traditional village community, buttress it by programmes of rural development, there is an underlying attitude of patronage, or of unrealistic romanticism (cf. Dewey: 1972). The only fully worked out philosophy for a rural subsistence economy is that contained in the writings of Mahatma Gandhi. He was against mechanization, and visualised the ideal future for India in the strengthening of the village, with every person doing his quota of manual work in agriculture and/or handicrafts. The "torment of desire" would be overcome by limiting material wants to a minimum. In industry, labour-intensive techniques would be preferred, the handloom being symbolic of the underlying social philosophy. These conceptions even covered the scientific field: nature cures would be used in preference to modern drugs. Needless to say, with over 10 per cent of India's population inhabiting cities of over 50,000 such an ideal of a rural community is unrealistic, and there are few who would advocate the Gandhian philosophy in practice without major qualifications.

In Sri Lanka, with the spread of education and the growth of towns, there has been a drift of youth from the rural areas. In fact the ILO team admits that "we met few rice farmers and fisher-folk aged below 40" *(ibid., 95)*. A plan to restructure agriculture and deploy a high proportion of unemployed youths to subsistence agriculture would, in these circumstances, be bound to fail. Nor is it, in the long run, economically advisable. Those who advocate it, according to Rene Dumont (1957:516)

> are mistaken, for the survival of an agrarian structure that hinders productivity is as effective a barrier to social progress as an unjust distribution of income. Progress demands a rapid expansion of production and it is by their aptitude for serving this end that the various kinds of economic system will be finally judged.

In fact, increasing productivity is the "historic mission" of agriculture, and to repudiate this historic mission for the short-term gain of creating employment would be short-sighted indeed.

The other strategy is to synchronize agricultural development with a concomitant expansion of industry and services to absorb the surplus rural manpower. The point of departure from the ILO short-term strategy is that the technification of agriculture and the creation of large state-owned units of collectives, is not ruled out. We have the model of the plantation industries in the tea and rubber plantations, where productivity is higher than in the smallholding sector precisely because of a more efficient form of organisation. The ILO team admits that "ultimately" cooperative, collective or even private commercial units using capital and saving labour may be necessary, "but to allow this prematurely would be disastrous" *(ibid.*, 93n). Disastrous for whom or for what reason they do not explain. The "ultimate" consolidation is going to be fraught with conflict, tension, and violence.

Yet this philosophy of an economy with the small proprietary farmer as its foundation pervades the entire political spectrum and precludes strategies calculated to increase production rapidly. Even the insurgents, in their preparatory classes, proposed the subdivision of the plantations into small holdings to be planted with subsistence crops (it is curious that yams were proposed at a time when the country is on the threshold of self-sufficiency in rice). If the current drift of youth from the village is to be stemmed, new organizational forms for agriculture which would redress the imbalance between town and country are necessary. Eastern European countries have contrived to eradicate the "weeds" of the petty-ownership mentality which created urban-rural differences in the past and consequently gave the village a modern outlook the capacity for procuring urban amenities to the extent that cooperative farmers come ever closer to the frame of mind of the urban working class. (Zhivkov: 1969, 350, 354). In contrast, the extension schemes designed to improve the lot of small farmers, invariably fail owing to a combination of factors, including corruption in their implementation. Even the GPS scheme – the guaranteed price for a bushel of rice has now been raised to Rs. 33 – does not always benefit the smallholder. He is kept waiting at the store, on the pretext that there is no cash for payment, or that product is sub-standard, until he is compelled to sell it for less to a waiting middleman who is really a henchman of the store manager. Likewise the distribution of fertilisers etc. to scattered farms is physically difficult. Nor can the smallholder afford the inputs

necessary to the highest yielding varieties of rice etc. He has to be content with the medium-yielding varieties like H4.

The dilemma is succinctly stated in the Five Year Plan (1971, 11)

> But emphasis only on the long-term aspects of growth can lead to social imbalances and dislocations which can do irremediable harm to the growth of a reasonably stable society. The possible point of conflict between long-term and short-term policies arises with regard to the problem of employment...
>
> A balance has to be struck between the demands of long-term growth and the demands consequent to the present social crisis.

The plan proposes the distribution of 810,000 unemployed persons during the Plan period in a pattern reflecting a reduction from the present 50 per cent (approx.) of the workforce in agriculture to 37, and a corresponding increase of employment in industry and the services:

TABLE II

	Employment of Workforce (1965)	*Distribution of Unemployed* (1972/6)
Agriculture	48.6%	37% (300,000)
Manufacturing and Construction	11.9%	28% (225,000)
Services	26.8%	35% (285,000)

This is a modest goal. As I mentioned earlier, there is a time-lag before the surplus production of agriculture can be diverted to labour-absorptive investment in industry and the service sector. But there must be a real surplus to be diverted from agriculture, not a net loss (i.e. the surplus agricultural product purchased by the state and distributed free plus the cost of subsidised inputs such as fertilisers). In such an arrangement there can never be a real surplus, for in the short-term strategy, microfundia are favoured with subsidies (for inputs, such as fertilisers and by way of guaranteed prices for the product), but however great their income, there is neither taxation of incomes nor any levy for irrigation. The producer of rice is, moreover, favoured with a free ration of rice! This is the logical result of the pervasive attitude of patronage of the small farmer. The burden of any agricultural tax is shifted

to the so-called "plantation industries". Unless agriculture is restructured on a large scale basis it is impossible to tax agrarian profits, to syphon the "surplus" to the other sectors, and thus create employment. Instead an economy closely linked to near-subsistence will be perpetuated. A beginning can be made at least in the vast areas to be irrigated under the new river valley schemes; it would be economically disastrous to split them into smallholdings, to be consolidated "ultimately". The capital outlay on these multi-purpose schemes is hardly justified if the end-result is to feed a primitive agriculture. In conclusion,

> If the imbalance between town and country is to be redressed, the entire philosophy of the small peasant proprietor imprisoned within the technological confines of a five-acre holding, may give way to cooperative, or even collective, farming. These large rural farms are more appropriate to management as projects than the five-acre allotment which is too small to rationalize its productive activities in order to employ the skills of the agronomist, the accountant, the farm manager and the agricultural engineer. If the rural areas are not to lag behind the towns, agriculture must take new organizational forms consonant with its technification (Peiris: 1971, 16).

REFERENCES

Bell, Daniel (1967) Notes of the Post-industrial Society (*The Public Interest*, 7).

Childe, V. Gordon (1945) *What Happened in History* (London).

Clarke, Colin (1960) *The Conditions of Economic Progress* (London: Macmillan).

Dewey, C. (1973) Images of the Village Community. A Study in Anglo-Indian Ideology (*Modern Asian Studies*, 6/iii).

Government of Ceylon (1971) *The Five Year Plan* (Colombo).

Harris, Melvin (1959) The Economy has no Surplus? (*Amer. Anthropologist*, LXI/2).

ILO (1971) *Yearbook of Labour Statistics*.

ILO (1971) *Matching Employment Opportunities and Expectations. A Programme of Action for Ceylon* (Geneva).

ILO (1972) Proceedings of the Consultative and Technical Workshop on the Asian Regional Project for Employment Promotion (Bangkok 17–18 Jan. 1972).

Lerner, Daniel (1957) *The Passing of Traditional Society* (Glencoe).

Lockwood, W. W. (1972) Employment, Technology and Education in Asia (*The Malayan Economic Review*, XVI/2).

Oshima, Harry T. (1972) Labour Absorption in East and Southeast Asia: A Summary with Interpretation of Postwar Experience (*Malayan Econ. Rev.* XVI/2).

Pearson, Harry W. (1957) The Economy has no Surplus: Critique of a Theory of Development (*in Trade and Markets in the Early Empires*, ed. K. Polanyi & C. Arensberg. Glencoe).

Pieris, R. (1971) Towards Comprehensive Planning (*Marga* 1/i).

Sen, A. K. (1970) Strategies of Economic Development: Feasibility Constraints and Planning (*in Economic Development in South Asia* ed. E. A. G. Robinson & M. Kidron. Longon).

Uswatte Aratchy, G. (1972) From Highway to Blind Alley. A Note on Youth and Higher Education (Marga, 1/iii).

Weitz, Raanan (1971) *From Peasant to Farmer. A Revolutionary Strategy for Development* (Columbia University Press).

Zhivkov, Todor (1969) *Problems of the Construction of an Advanced Socialist Society* in *Bulgaria* (Sofia Press).

AID* FOR DEVELOPMENT

JAGDISH C. SAIGAL†

I. Introduction

During the 1950s and most of the 1960s there was a feeling of euphoria among the newly emerging Third World nations and within the international community. It was generally believed that the process of decolonization, with the commencement of a new era after the Second World War, had turned colonial domination and exploitation of the Third World countries into a thing of the past and that it had marked a new beginning in paving the way for the new nations to achieve rapid industrialization and economic development. Development strategies and plans were drawn up, both at national and international levels, to help newly emerging nations (called the developing countries) catch up with the developed and highly industrialized nations so as to create a new world economic order which would ensure "a happy and safe life" for all on our globe. In this respect economic aid from the metropolitan countries was generally considered to play the role of a catalytic agent for growth and development in the peripheral economies of the Third World.

In the 1970s, however, the euphoria of the previous two decades is gone and there is a crisis of "development" and "aid" in the face of the following realities:

(a) In terms of aggregative growth patterns, during the last two decades or so, there have been some improvements.

* The term "aid" is currently used to describe transfers of resources from governments or official institutions to developing countries.

† The author is a staff member of the United Nations, but the views expressed herein are personal and are not necessarily those of the Organization.

The gains achieved, however, have been shared among countries and social groups very unevenly and unequally. In many cases the living conditions of the majority of the population have deteriorated rather than improved. The gap between the "rich" and "poor" countries has become still wider.

(b) The problem of unemployment and under-employment in most Third World countries has assumed a more serious dimension in the 1970s than in the 1960s and 1950s. Increased expenditure on education on a rather large scale during the last two decades in the developing countries (whether it has stimulated economic growth or not, one cannot say for certain) has definitely increased the average level of schooling in the swelling unemployed and under-employed labour force. There is widespread poverty, deprivation and "marginalization" of the masses in most Third World countries.

(c) Efforts of the last two decades at securing "aid" and foreign private capital for development have by now burdened the developing countries with an outstanding external debt of $99.3 billion and liabilities from private foreign investments to some $52 billion. With an annual payment of $7.2 billion for amortization and remittances of $16.8 billion for interest, profits, dividends and royalty and management fees, etc., debt servicing has become a more pressing problem for the developing countries than debt securing.*

In view of the last two decades' performance many scholars and policy-makers in the Third World countries have come to express scepticism about the usefulness of economic aid from outside for national economic development. Doubts have been raised by some about the purpose and objectives of aid to the developing countries. They ask whether aid from the metropolitan countries is meant to play the role of catalytic agent for economic

* While the figures for outstanding external debt and liabilities from private foreign investments refer to the end of 1972, the figures for payments for amortization interest and *net* foreign private investment income remittances refer to 1973.

development, or whether it is used as an instrument of "leverage" for influencing and constraining economic policies in the Third World countries with a view to preserving the colonial or neo-colonial economic relations of an exploitative character.

The main objective of this paper is to evaluate the validity of the scepticism and doubts being expressed about the role of aid in the Third World economies. For this purpose an attempt is made here to appriase not only the total volume of aid and resource transfers, but also the direction, distribution pattern and nature of aid and its main objectives. In this respect, we will also review the relationship of aid with the choice and design of projects and general economic policies in the developing countries. Needless to say the role of aid in economic development cannot be appraised purely quantitatively.

II. Aid and "Big Push" for Development

The total volume of aid (i.e. *net* official development assistance* committed by the developed countries for the developing countries during the last ten years (1963–1973)) amounted to about $74 billion. In nominal terms the net official development assistance rose from $5.8 billion in 1963 to $9.4 billion in 1973. But aid to developing countries in real terms and as a percentage of gross national product (GNP) of the developed countries has been declining over the years. Aid as a percentage of GNP of the developed countries as a whole fell from 0.5 in 1963 to 0.3 in 1973. On the other hand, aid does not constitute more than 1 per cent of the national product of the developing countries as a whole.

Thus, it is evident that the total volume of aid during the last decade or so has been nowhere near the sums advocated by development experts who advocated in the 1950s and the 1960s for foreign aid to play the role of a "big push" to break "the vicious circle of poverty and under-development" in the developing countries. While the development prospects of the developing countries have become more precarious and more people are hungry, sick, shelterless and illiterate today than when the slogan of "aid for development" was launched in the 1950s, efforts at securing aid during the last two decades have by now led to an increase of

* Defined as gross flows of official development assistance *less* amortization.

outstanding external debt of the developing countries to over $100 billion.

In the face of declining aid in real terms over the years, donor countries and some international aid-giving agencies – the World Bank in particular – have in recent years laid stress on the increased inflow of foreign private capital to promote economic development in the developing countries. It is important to remark here that already by 1972 the developing countries had accumulated liabilities from past foreign investments to some $52 billion and the annual payment by the developing countries for remittances of interests, profits and dividends, etc., run currently over $16 billion. This added to the official debt service payments has already become a serious problem for most developing countries.

The picture generally presented by the donor countries and the aid-giving agencies on the transfer of resources is very misleading. In presenting the *net* flows of resources no account is taken of payments by the developing countries for remittances of interest, profits, dividends, and management and royalty fees, etc. On the other hand, the Third World countries are yet to emerge from the historical consequences of almost five centuries of colonial domination and control, which imposed a very unfavourable international division of labour and specialization on them. As a consequence, the trade between developing and developed countries is governed by "unequal exchange", that is, the developing countries sell their products cheap to the developed countries and buy from them at a higher price. One of the consequences of the "unequal exchange" is hidden transfer of huge amounts of economic surplus from the developing countries to the developed ones through the channel of international trade.

It is to be noted that the unfavourable trend in the terms of trade of the developing countries measured quantitatively since the 1950s is one component of the "unequal exchange" phenomena in international trade. Mr. Gamani Corea, Secretary-General of UNCTAD, noted in his statement to the ad hoc Committee of the Sixth Special Session of the General Assembly that by 1972, the terms of trade of the non oil-exporting developing countries had deteriorated by about 15 per cent compared with the mid-1950s, which was equivalent to a loss in 1972 alone of around $10 billion –

more than 20 per cent of these countries' exports, and an amount significantly in excess of the total official development assistance from the developed market economy countries in that same year.*

If a proper balance sheet of inflows and outflows of resources for the developing countries (taking into account *direct* transfer of resources from the developing countries through remittances of profits, dividends, management fees and royalties on imports of technology, etc., and *indirect* (hidden) transfers of resources through the channel of international trade on account of unequal exchange phenomena) is constructed, one will really be compelled to ask whether the general belief that the developing countries receive financial assistance from the developed ones is not a misconception and the opposite may be true. One may further ask, has the historical international economic relationships between the metropolitan countries and the peripheral economies of the Third World really changed? We present below, in Table 1, such a balance sheet for the developing countries other than the major oil exporters for 1972.

TABLE 1

Resource Flows for the Developing Countries Other than Major Oil Exporters (1972)

(billions of US dollars)

Receipts (Inflows of Resources)		*Payments (Outflows of Resources)*	
1. Official development assistance (gross)	11.3	4. Debt service total	6.0
		(a) Amortization 4.3	
		(b) Interest 1.7	
2. Private flows of capital (direct private investments, loans and private export credit)	9.0	5. Other Private Investment Income Payments (remittances of profits, dividends, management fees, etc.)	3.4
3. Total inflows (gross)	20.3	6. Estimated loss due to fall in terms of trade as compared with mid-1950s	10.0
8. *Net Inflows*	0.9	7. Total Outflows (gross)	19.4

It should be noted that the estimated loss due to unfavourable terms of trade of the developing countries does not fully account

* Problems of raw materials and development: Report by the Secretary-General of UNCTAD prepared for the Sixth Special Session of the General Assembly, *United Nations* (New York, 1974), p. 1.

for hidden transfer of economic surplus from the developing countries through the channel of international trade on account of "unequal exchange". In fact the amount of surplus transfer due to "unequal exchange" is likely to be several times the estimate of loss due to decline in terms of trade ($10 billion) presented in the above table.

III. Geographical Distribution of Aid

In view of the fact that economic aid to the developing countries remains overwhelmingly bilateral (76 per cent in 1973), geographical allocation of aid by individual donor countries reveals more about the nature and objectives of aid. The salient features of the statistical data on geographical distribution of aid as reported in the *OECD 1974 Review: Development Co-operation* are the following:

(a) Aid receipts, measures on per capita basis, vary enormously between countries (from $0.4 to $650.0).

(b) Some aid-receiving countries because of their special *relationship* with some donor countries occupy privileged status in the aid programmes of those donor countries and therefore they receive disproportionately much more aid than others (this of course does not mean necessarily that it does good to these recipients of aid). For example, according to the OECD 1974 Review, thirty-nine recipients with an annual average aid commitment of more than $10 per capita and having special relationship with one or the other donor country, received 28 per cent of the bilateral aid commitments recorded for the period 1969-72, while these countries account for only 3 per cent of the population of the developing countries. The special relationship usually comes from either past colonial ties or foreign policy and military alignment of the recipient with a donor country or because of donor country's trade and private investment interest in the recipient country.

(c) Most donor countries concentrate their bilateral aid in their former colonies or dependencies or in countries where they have heavy trade and private investment interests, including interest of securing raw materials.

(d) Finally, there is no clear-cut correlation between aid flows and poverty.

From the above features noted from an analysis of statistical data on geographical allocation of bilateral aid, it is fair to conclude that the nature and purpose of aid does not arise as much from the need of development in the developing countries as from the donor countries' own pursuit for preserving their past economic relationship with their former colonies and dependencies and expanding their private investment and trade interests in the developing countries. Another motive or objective of aid is also to ensure against any developing country falling out of the international economic system, the structural nature of which is represented by two poles, the *centre* (the developed countries) and the *periphery* (the developing countries).

IV. Aid, Choice and Design of Projects in the Developing Countries

There is a practice of providing aid only for the direct exchange costs of projects and also tying aid to specific projects, whose choice and design must be negotiated with, and approved by donor countries or multilateral aid-giving agencies. The practice is regarded as a means of ensuring a satisfactory use of resources, just as provision of aid in the form of loans rather than grants is justified on the grounds of the need to encourage financial discipline in developing countries. It also, though, provides a means of ensuring that aid promotes expansion of additional exports and private investment opportunities from themselves.

In fact, increasing importance has been attached more recently to the idea that the donor countries, or the international institutions such as the World Bank, use their power as aid givers to withhold or increase aid as a means of influencing the *general* economic policies of developing countries in a specific direction. The argument used in favour of this idea is that if aid is treated as merely a transfer of resources it not only does not ensure that the aid is not wasted, but also fails to make full use of the opportunities of promoting "satisfactory" economic policies that aid provides.

In appraising the role of aid in economic development, it is important to examine the nature of the projects which have aid component to finance foreign exchange cost and its effects on

resource allocation pattern and overall structural change of the national economies of the developing countries. More fundamentally, what type of development is promoted by the projects whose choice and design are conditioned by aid.

Tying of aid to projects, especially when only foreign exchange cost of the project is financed by aid, results in the choice of excessive import–and capital-intensive projects. This not only distorts import and resource allocation patterns of the developing countries, but creates new forms of dependency (dependence on capital goods, intermediate inputs and technology, etc.) of these countries on the developed ones.

On the other hand, if one moves away from the superficial analysis of cost-benefits comparisons or profitability calculations of the project and appraises the nature of projects financed by aid in the developing countries in the last two decades, one finds that the choice and design of projects and general economic policies of the developing countries conditioned by aid has further deformed the economic structures of the developing countries by promoting the externally oriented development in those countries. We will illustrate this point with the aid of an example of the Volta River Power Project in Ghana. Part of the foreign exchange cost of this project was financed by a loan of US$47 million from the World Bank.

The Volta River Power Project grew out of the desire to put into use two idle resources in Ghana, the large bauxite deposits at Yenahin in Western Ashanti and the hydro-electric potential of the Volta River. As early as 1924, the project received serious consideration by the Colonial Administration of the Gold Coast (as Ghana was called then). By 1952, the details of the scheme which included construction of a major hydro-electric installation at about 70 miles from the mouth of the Volta River; the opening of a bauxite mine at Yenahin; the construction of an aluminum plant, a smelter, and a township near the dam site and construction of infrastructural facilities related to mining and aluminum manufacturing projects had been worked. It was also conceived that the power project would be combined with irrigation schemes to expand food production.

The preparatory commission, which was appointed by four parties (viz. British Government, two Commonwealth Aluminum Companies, the Gold Coast Government and Independent Public Authority to operate the dam and power plant), prepared a report in 1956 on the cost estimates of the whole project.

In view of the world-wide over-capacity in aluminum producing facilities which had developed at that time, the Commonwealth Aluminum companies lost their interest in the project and so the scheme was shelved until after independence was granted to Ghana. Shortly after Ghana became independent, the government granted to VALCO, a consortium of American aluminum companies, to review the situation. The Government of Ghana also invited the World Bank, to which it applied for a loan to finance part of the foreign exchange cost of the project, to study the technical and economic feasibility of the project.

Finally the project was considerably pruned to building a dam for power generation and setting up of a large aluminum smelter plant. Under the agreement between the Government of Ghana and VALCO, the latter undertook to build the smelter and the former to build the dam partly financed by a loan from the World Bank.

Under the new scheme the aluminum smelter plant was to be based on imported raw materials from the subsidiary of VALCO in another developing country and the smelter was to be supplied with power under a long-term contract from the Volta River Power Project. Under the terms of agreement nearly 80 per cent power output from the Volta River Project was to be supplied to VALCO for a period of 30 years at a price of mills 2.625 (or .26c.) per kwh. This price was estimated to be lower than the cost of production of electricity for the project and was less than one-fourth of the price to be charged to local users.

In conclusion, the Volta Power Project as finally executed with aid, was reduced to an industry exporting power to a multinational aluminum group at the lowest price of electricity in the world. Although there were some ancillary benefits locally, in essence the loan was obtained by the Government of Ghana to finance and

subsidize expansion of profits and investment of a foreign multinational company.

Such examples are very many to cite (railways project in Mauritania and tea road project in Kenya and so on). Most of the infrastructural projects in the developing countries financed by aid during the last two decades are of a nature which supports and promotes externally oriented nature of development in these countries.

V. "Dependence" and Process of Growth and Development in the Third World Countries

The economic structures of the underdeveloped regions of Africa, Asia and Latin America, which have been shaped by *dependent* relations through different historical periods since the 16th century, reflect both *unity* and *diversity*. The structural unity of the economies of the Third World should be seen against the background of their subordinate status in the international division of labour and their situation of *dependence* in the international economic system. They are primarily raw material producing economies and their productive structures are without *forward* or *backward* linkages either within the national economy or intra-regionally between the underdeveloped nations. Historically, the evolution and transformation of the productive structures in the Third World countries has been conditioned by the self-centred capitalist development and expansion in Europe and North America and these structures are hence oriented and linked to the self-centred and expanding economic system of *the centre*. One characteristic feature of the developing countries is the wide divergence between domestic demand and the needs of the broad masses and, at the same time, there exists hardly any organic link between domestic resources and domestic demand. Such deformed economic structures are organically linked to their own internal social structures and their relationship with the international economic system, one serious consequence of which is the highly uneven distribution of income and wealth.

At the same time, there is diversity in the Third World economy. Whereas some regions (or countries) specialize in commercial agriculture mainly for export, others are petroleum economies, other mineral enclaves and yet others – mainly in the hinterland – suppliers of cheap labour.

There is also a marked internal differentiation within the Third World economy in terms of overall development, level and degree of industrialization, diversification of production and export structure. This diversity in the economic structures of the Third World regions is due to such factors as geographical location, size and distribution of the population, natural resource endowment situation, proximity of a region to the metropolitan economy and internal class structures. It can be aptly summarized in terms of a typology of the structures, as follows: (a) plantation economy; (b) mineral enclaves (including petroleum); (c) trading economy ("économie de traite", as Amin has characterized the West African region); (d) labour reserve areas; (e) manufacturing enclaves of runaway industries (such as Hong Kong and Singapore).

However, the 1930s crisis, which depressed the world market and created severe difficulties for the export sector of the peripheral economies, coupled with growing nationalism at home and the strong demonstration effect of rapid economic growth through industrialization in the Soviet Union, led to a drive towards industrialization through import substitution in many countries of the Third World. This process, which in some cases started in the 1930s, but as late as the 1950s or 1960s in most countries of the periphery, has mainly been carried out in collaboration with foreign capital and technology. In certain regions and industries, however, the import substitution based industrialization was started by national capital at the time of the 1930s crisis.

Irrespective of how and when the process of industrialization through import substitution started in different parts of the Third World, it has always been constrained by two built-in limitations arising from the existing class structures. Firstly, the process began in the context of existing income distribution and demand patterns, which meant that industrial expansion (i.e. the manufacturing sector) had to concentrate on final consumer goods for a small section with a high income level. Thus, without effecting a radical change in the class structure and income distribution pattern, the internal market could not expand fast enough to sustain the import-substitution process indefinitely. On the other hand, even a modest success of industrialization through import substitution required a further deterioration in income distribution. A second limitation was imposed by the fact that the industrialization

programme did not develop a producer's goods (capital goods) sector and these goods had increasingly to be imported from the developed countries if the import-substitution process was to be kept going. In other words, the economy ended up substituting imports of luxury goods by imports of producers' goods. In some countries, such as India and Egypt, attempts were made in the 1950s and 1960s to establish a State capital goods sector (integrated iron and steel works, machine tools, etc.). Because of the internal market structure, determined by the existing internal class structure, a link was established between this and the luxury consumer goods producing sectors. Since the internal market was unable to expand fast enough to sustain the growth of the capital goods industries, these goods were either exported, as in the case of Egypt (steel products for external markets) or they developed excess production capacity, as in the case of India.

While the initial objective of industrialization through import substitution in the developing countries was to seek greater autonomy vis-à-vis the international economy and long-term self-sustained economic growth, the results have been quite different. The dependence of the developing countries on the developed ones has deepened (the case of the Latin American countries provides a clear example of this) and, at the same time, the limitations of this kind of industrialization unless preceded by major changes in the class structure and income distribution patterns has become apparent. Although the process of industrialization through import substitution has failed to create a material base for long-term, self-sustained growth, even in those Third World countries where *the process* started several decades ago, it has accelerated the process of proletarianization of the masses, increased the social and regional inequalities and the marginalization of the population and of economic activities. The kind of development resulting from this type of industrialization has been aptly categorized by Frank as "lumpendevelopment". It may also be noted that both the level and the pattern of industrialization in different parts of *the periphery* have been very uneven, Latin America being the most advanced and Africa – particularly Black Africa – the least developed industrially. Even within each continent, the structure and level of industry is extremely unevenly distributed among different regions and countries.

VI. Concluding Remarks

From the foregoing discussion the following main points emerge.

(a) Aid, even when measured in the broadest terms, has never been more than a marginal addition to the total development resources of aid-receiving Third World countries. Over the years, however, and in real terms, it has been falling and its geographical distribution reflects no clear-cut correlation between poverty and aid.

(b) The picture generally presented by donor countries and aid-giving international institutions on the net resource transfers is quite misleading. If a proper balance-sheet of inflows and outflows of resources for the developing countries, which takes into account *direct* transfers of resources from the developing countries through remittances of profits, interest, management fees and royalties on technology transfer, etc. and *indirect* (or hidden) transfers of resources through the channel of trade on account of "unequal exchange" in favour of developed countries is constructed, one may be compelled to ask whether the general belief that the developing countries receive financial assistance from the developed ones is not a misconception and the opposite may be true.

(c) The private foreign investments in the developing countries have pursued two specific objectives: to open up new sources of raw materials (e.g. petroleum, copper, iron ore, bauxite, etc.) mainly for export and, secondly, to establish assembly and packaging factories in order to gain an advantage in foreign markets. Neither of these assist very greatly the process of development and industrialization. This also remains a major focus of the foreign aid programmes of the developed countries.

(d) The choice and design of development projects and general economic policy in the developing countries is to a large extent conditioned by aid policy of the developed countries. Tying aid to projects and general economic policy acceptable to donor countries or aid disbursing international agencies, not only disturbs the resource-allocation pattern in the developing countries, it also promotes externally oriented nature of development, a process initiated in the past during colonial rule over the developing countries. Such a pattern of development, while it fails to solve socio-economic problems of the developing countries, creates new forms of dependence of the developing countries on the developed ones.

(e) Given the nature, type and objectives of foreign aid, it, together with private foreign capital, has failed to play the role of a catalytic agent for growth and development in the developing countries. Development prospects of these countries have become more precarious. More people are hungry, sick, shelterless and illiterate today than when the slogan of aid for development was launched in the 1950s. On the other hand efforts at securing aid have led to an external debt burden on the developing countries of over $100 billion. Debt servicing has become a serious problem for the developing countries.

One may, of course, ask, then what is the alternative for development in the developing countries? The answer lies in rejecting the "dependent" model of development. Instead of seeking development through an externally oriented development strategy, the developing countries should adopt a "self-reliant" development strategy, both individually and collectively. The road to development will, of course, be different than so far followed and self-reliant development would necessarily require a *radical* change in the social and political structure of the developing countries. It may be remarked that in the short run foreign aid, provided no strings and conditions are attached to it, can be of valuable help to the developing countries in achieving a self-reliant development.

Many developing countries are very small. Economic co-operation and collective self-reliance among the developing countries at regional or sub-regional level will be a necessity for the small developing countries at least. Close co-operation and collective self-reliance among the developing countries is also needed to strengthen the position of the developing countries in the international system. Recent co-operation among and collective action by OPEC countries neatly illustrates this point.

The need for a new equitable world economic order which ensures national independence and a happy and safe life for all on our globe is being recognized today more than ever.

REFERENCES

1. OECD, *Annual* 1974 *Review on Development and Co-operation,* (Paris).
2. World Bank, *Appraisal of Investment Projects.*
3. World Bank, *International Development Association Reports.*
4. United Nations, *Problems of Raw Materials and Development,* TD/B/488. Report of the Secretary-General of UNCTAD prepared for the Sixth Special Session of the General Assembly (New York, 1974).
5. Samir Amin, *L'accumulation à l'échelle mondiale* (Editions Anthropos, 1971).
6. Samir Amin (ed.), *L'échange inégale et la loi de la valeur* (Anthropos, 1973).
7. Jagdish C. Saigal, "Reflexion sur la théorie de l'échange inégale". L'échange inégale et al loi de la valeur (Anthropos, 1973).
8. Arighiri Emmanuel, *Unequal Exchange* (New York).
9. Hamza Alavi and Amir Khuoto, "Pakistan: The Burden of U. S. Aid", *New University Thought,* Vol. 2, No. 4.
10. Jagdish C. Saigal, "World Economic Order and Liberation of the Third World, Approach, Conceptual Framework and General Analysis", *Mimeographed IDEP R*/2672.

KEY FACTORS IN INCREASING AGRICULTURAL PRODUCTION

M. F. CHANDRARATNA

The totality of the world's food ultimately derives from the photosynthesis of carbohydrates in crop plants. A plant's accumulation of dry matter represents the balance between photosynthetic gain and respiratory loss. As high temperatures intensify respiratory consumption without commensurate acceleration of photosynthesis, crop yields in the tropics may not reach the levels that obtain in temperate latitudes.

If the yield of dry matter is to be maximized, a crop population must maintain itself for the greatest possible growth duration, at its optimum leaf area, i.e. the area at which the photosynthesis – respiration balance operates at its peak value. Moreover, efficient distribution within the plant of the accumulated dry matter must be achieved: in cereals, for instance, the grain/straw ratio must be high. Crop breeding and fertilizer use provide the means for attaining these two objectives. Indeed, fertilizers and high-response varieties are the critical components in any package of agricultural inputs. Such briefly are the basic principles in the strategy for maximizing agricultural productivity.

Sri Lanka's productivity problems are most profitably examined in a global context. By and large, comparable productivity problems afflict all developing countries. Nevertheless, unless there is adjustment to the physical environment and the socio-economic milieu of the region, the adoption of technological advances developed elsewhere may make no impact, or even prove disastrous.

The population of the developing countries (exclusive of mainland China) in 1962 exceeded 1,394 million, and composed

44 per cent of the world's total. The 1985 projection of the food requirements of the developing countries approximates 140 per cent above the 1962 figure: two-thirds of this increase derives from population expansion, and one-third is the income effect on per-caput demand. Sri Lanka, in common with other developing countries, must accomplish this near-insuperable task of producing her food needs by the planned utilization of her land and water resources.

The developing countries possess a common characteristic: they lie almost exclusively in the tropics and the sub-tropics, where the land-man ratio is invariably inadequate, and soil fertility is not as high as the lush vegetation suggests.

Intensive Land and Water Use

For many years, the 75-inch annual isohyet demarcated Sri Lanka's Wet Zone from the Dry. In recent years, a more meaningful distinction has come into use: The area below the 20-inch May–September isohyet (i.e. the area in which South–West Monsoon rainfall is not pronounced) is termed the Dry Zone. An additional refinement is the recognition of an Intermediate Zone between the 20-inch and 40-inch May–September isohyets. Increased soil vulnerability to erosion and misuse mark the transition from the Dry Zone to the Wet Zone, particularly when the soils are cropped with annuals. Although this broad categorization into Wet, Intermediate and Dry Zones has general validity, a more refined analysis of Sri Lanka's complex precipitation patterns and the extensive estimation of confidence limits of rainfall would reveal many areas possessing particular promise of successful multiple cropping. One investigator recognizes as many as 15 Rainfall Regimen Zones in Sri Lanka.

A feature of Sri Lanka's physiography is that, except for the coastal belt, the land undulates conspicuously, and breaks up into a multiplicity of catchments. These catchments represent the ultimate units for integrated soil and water management. Moreover, extending from the upper reaches of the watershed to the bottom lands, there is a series of land classes that must be clearly recognized in any farming system.

In Sri Lanka, there are severe limits to raising agricultural productivity through an expansion of the arable acreage. Instead,

the country must look to intensified land and water use for productivity increases. In this setting, the extensive persistence in the Dry Zone, of the shifting chena system, under which cropping intensity is minimal, gives cause for concern. Today, easily available inputs can substitute for the protracted bush-cover that is implicit in the chena system.

Rainfall insufficiency in the Dry Zone and erosion hazards in the Wet Zone are major constraints in annual cropping. The Wet Zone emphasis on perennials is appropriate, particularly at erosion-promoting gradients. Nevertheless, where the topography is favourable, the precipitation in the Wet Zone gives great promise of high cropping intensities with annuals. Multiple cropping is a relatively unexplored field in Sri Lanka, and possesses fantastic possibilities. The essence of the system is a continuous succession of short-duration crops with judicious transplanting, interplanting and relay-planting. The raising of four crops a year is not uncommon in certain countries; the number may rise to as many as nine. Production under multiple cropping in several countries in Asia has reached 10 tons of dry matter per acre per year. Expansion of the multiple-cropping acreage is a major objective under India's Fourth Five-Year Plan. Multiple cropping, it must be conceded, requires considerable sophistication and heavy investment in material inputs and labour.

The Role of Fertilizers

Fertilizers provide the most potent weapon in the strategy for raising agricultural productivity. In the last decade, the factors that contribute to fertilizer responsiveness in crops, and the nature of fertilizer interactions with the varietal genotype and the crop environment have been clearly comprehended. Maximizing efficiency in fertilizer use is now a relatively simple matter.

As severe limits are set on the amount of foreign exchange that Sri Lanka can expend on fertilizer purchase, issues of fertilizers are best concentrated in areas where no environmental constraints to fertilizer response exist. The ill-drained rice soils of South–West Sri Lanka are illustrative of this type of constraint.

High light intensity maximizes fertilizer response in the whole range of crops from annuals like paddy to perennials like tea. Tea is likely to benefit most from heavy fertilization after the removal

of shade. In Sri Lanka, the most marked fertilizer response of rice is achieved in the Dry Zone in the *yala* season when cloudless skies maximize light intensity.

The plant form in rice that ensures the highest degree of nitrogen response is essentially one that maximizes photosynthetic efficiency in relation to incident light: nitrogen-responsive varieties are short and stiff-strawed, and carry small, thick leaves with a near vertical orientation that reduces mutual shading. Ancillary characters related to nitrogen responsiveness include resistance to the blast disease, a relatively short sowing-harvest duration and insensitivity to day-length. All these characters have been bred into the rice hybrids now under issue in Sri Lanka.

The significant fact that the bulk of the starch that deposits in the grain of a cereal derives from photosynthesis after heading is often insufficiently appreciated: in rice, the post-heading deposit of starch accounts for 70 per cent of the content of the grain; in barley, the totality of the starch accumulated in the grain is claimed to be the product of photosynthesis by the emergent ear. The creation by breeding and fertilizer use, of conditions that promote post-heading photosynthesis would enhance grain yields. Late potash applications delay leaf senescence in cereals, and should find a place in the strategy for raising productivity.

Discussion of techniques of assessment of varietal differences in fertilizer response would be inappropriate here. It may, however, be mentioned that the parameters of fertilizer response curve provide the most meaningful characterization of the nature and magnitude of varietal responsiveness.

In a national emergency, it may become Government policy to ensure the highest possible acre yields with little regard to production costs. Economic considerations, however, bulk large in the individual farmer's approach: profit maximization is the farmer's unequivocal objective.

The form of the production function relating crop yields to fertilizer levels is well known: Marginal-yield increases follow the familiar Law of Diminishing Returns. It would be clear from the form of the response curve that the fertilizer level that gives the highest yield is always lower than the level that maximizes profit.

Indeed, yield maximization may result in a net loss to the farmer. The farmer would prefer fertilizer use at the economic optimum.

The processing of Ceylon's wealth of fertilizer trial data into production functions, and the calculation therefrom of the economic optima constitute a relatively simple statistical exercise from which sizable savings in foreign exchange can accrue. It is abundantly clear that, particularly in instances where fertilizers leave no residual benefits, the use of doses in excess of the economic optimum is relatively wasteful, and can be excused only in special circumstances.

Raising Soil Fertility

To ensure sustained soil productivity, farming systems must eliminate erosion and loss of soil structure, and maintain the organic matter status of the soil. In sharp contrast to arable farming in temperate latitudes, none of the agricultural systems developed in the tropics has completely achieved these objectives. The rapid depletion at high temperatures, of the soil's reserves in organic matter is probably the most serious farming problem in the tropics. The situation in Sri Lanka is aggravated by the acute shortage of animal manures. High transport and processing costs may make the use of composted city refuse uneconomic except for market-garden crops. The direct application of night soil is centuries-old in China and Japan, but it would be unrealistic to contemplate an extension of the practice to this country.

Temperate zone techniques, like resting land under leys, do not effectively restore the fertility of tropical soils. Under tropical grass fallows, soils show a shortage of available nitrogen consequent on deficiencies in numbers of nitrifying bacteria, particularly the nitrite-oxidizing species. Resting land that is due for replanting in tea under Guatamala grass is routine estate practice in Sri Lanka, the practice is, however, unsupported by experimental evidence, and its benefits appear dubious.

The twin objectives that dominate farming systems in the tropics, viz. the maintenance of the organic matter status and structure of the soil, are most effectively served by stubble mulching, a practice that, moreover, reduces erosion and run-off, and promotes water acceptance by the soil. The maximum return of crop residues to the soil is ensured if the crop spacing is the closest compatible with optimum yields.

Fertility maintenance in tropical soils must depend largely on fertilizer use. Sri Lanka is among the ten top fertilizer users in the developing countries. Export crops receive the bulk of these fertilizers. In 1962, Sri Lanka applied 56 per cent of its fertilizers on tea. In order to maximize profits from expenditure on fertilizers, high precision in fertilizer recommendations must be secured by (a) supplementing sophisticated experiment-station trials with an extensive network of simple tests in farmers' fields, and (b) calculating economic optima by appropriate statistical processing.

Urea and ammonium sulphate, the main sources of fertilizer nitrogen, are petroleum by-products, and the current oil crisis has affected both availability and prices. The exploitation of the capacity of leguminous plants for symbiotic nitrogen fixation can fractionally solve Sri Lanka's fertilizer-nitrogen scarcity. Not only does a legume inoculated with an efficient strain of the nitrogen-fixing bacterium synthesize its own nitrogen needs, but it leaves in the soil, a legacy of residual nitrogen for non-legumes that follow in the crop rotation.

Strains of *Rhizobium* (the genus of symbiotic bacteria that inoculates legumes) vary widely in nitrogen-fixing potency. Some strains of *Rhizobium* are unsatisfactory to a degree that warrants their being termed 'parasitic'. High nitrogen-fixing efficiency in the inoculating rhizobia must receive particular emphasis.

Apart from legume inoculation, nitrogen fixation by freeliving bacteria *(Azotobacter* and *Clostridium)* and by blue-green algae may be profitably promoted.

Factor Interaction and the Integrated Approach

In backward areas, consequent partly on population pressure, and partly on insufficient appreciation of land use principles, a considerable fraction of the cultivated acreage consists of marginal land in which a diversity of factors limits productivity. On land of this type, a complete input package that corrects several constraints simultaneously becomes necessary.

Even on prime arable land, the 'package' approach is desirable as agronomic factors, as a rule, cumulate geometrically. For instance, the two factors on which production strategy for prime land will be largely based, viz. crop-breeding and fertilizer use,

manifest such marked interaction that conspicuous benefits can be achieved only by the simultaneous exploitation of both factors. An improved variety expresses its superiority only in the context of heavy fertilization. By the reverse token, intensive fertilizer use makes little impact on yields unless responsive varieties are grown.

The complementarity of crop-breeding and fertilizer use calls for particular emphasis in developing countries where continuous cropping with negligible manuring has isolated a plurality of land races with low fertilizer response. In these countries, a variety may be extensively grown because it is in equilibrium with local soils: harvests remove only as much soil nutrients as are naturally replenished by physical weathering and by microbiological processes. Substitution of a land race by an unmanured high-yielding strain would progressively deplete soil nutrients and ultimately depress yields. Conversely, intensive fertilizer use may not benefit unimproved land races. Indeed, heavy fertilization of such forms often induces excessive vegetative growth, lodging, disease susceptibility and, in sum, low grain yields. The need in the less-developed areas, for an integrated programme of eliminating constraints and of applying improved techniques is abundantly clear.

Improved Varieties and Quality Seed

Farmers find the exploitation of breeding achievements attractive as it generally commits him to no additional capital or recurrent expenditure. The rapid spread of improved varieties in Sri Lanka from the 1940's to the present time is gratifying. In most developing countries, however, the impact of breeding advances on crop production have been unimpressive. For instance, the world's rice production (excluding countries with centrally planned-economies for which no figures are available) has risen in the half, century subsequent to 1903–1913, from 78 million tons to 130, almost purely by an acreage expansion; the increase in the world's average acre yield over this period has been insignificant.

The existence of a multiplicity of indigenous varieties characterizes most backward areas, and complicates seed multiplication and issue. The selection of strains that perform satisfactorily over a wide range of climate, soils and cultural practices would assist in the drastic reduction of numbers of varieties in general cultivation.

In the past, rice breeders in Asian countries have tended to make a fetish of pure lines and of the uniformity that characterizes them. Not only is the genetic advance achieved in pure-line selection unimpressive, but uniformity is achieved at a heavy sacrifice of adaptability. Apart from the expenditure of funds and time in the execution of the selection programme, the pure lines, by reason of their low adaptability, may be unsuitable for extensive issue.

Hybridisation programmes provide strikingly greater promise of genetic advance than straight selection; yield improvement under pure-line selection is usually of the order of ten per cent. Breeders occasionally refuse to resort to hybridisation until they have exhausted genetic variability by straight selection, but the tremendous potential in hybrid material makes it desirable that the exploitation of hybrids commence as early as facilities permit. It is surprising that even in Sri Lanka, the use of rice hybrids is relatively recent: the first extensive issue of hybrids was in the late 1950's.

Quality seed of improved varieties is the cheapest of crucial inputs in crop production. The failure of breeding advances to make an impression on crop yields must often be blamed on the inefficient sequence of processes between the breeder's isolation of a superior genotype and the issue of certified seed to farmers. Vigorous promotion of an improved variety by extension workers cannot achieve its spread unless the free flow of quality seed is assured. In Sri Lanka fortunately, a good central seed-testing laboratory exists, and the administration of seed certification and distribution schemes is relatively efficient. It is a matter for regret that these testing and certification services are unsupported by seed legislation.

Breeding for disease resistance

The genotypes of both plant and pathogen are involved in disease resistance. The environmental effect on host-parasite relations is a further factor. Notwithstanding its extreme complexity, disease resistance must continue to be an important breeding objective in developing countries where the peasant rarely has either the competence or the means for chemical control.

Mutation breeding shows conspicuous promise in selection for disease resistance. A factor that contributes to successful

selection is the ease with which mutation-induced disturbances in metabolism upset the delicate host-pathogen balance, particularly in obligate parasitism. Blast-resistant mutants appear with relatively high frequency in irradiated rice.

Plant Protection

New physiologic races continually appear among plant pathogens, and then disease may flare into epiphytotic proportions. The country's plant protection services should not only forewarn the farmer of the imminence of these outbreaks, but should co-ordinate nation-wide control measures; isolated action by farmers may be pathetically futile.

Of the factors that have contributed to crop protection efficiency in the last two decades, the most conspicuous have been (1) the discovery of a wide range of potent pesticides with marked specificity of action, and (2) the development of low-volume spraying machines capable of effective coverage with as little as four gallons per acre. Unless the purchase of chemicals and equipment is eased by Government or foreign benevolence, these advances are unlikely to make much impact on peasant agriculture in Sri Lanka.

Probably no development has provoked such revolutionary changes in farming methods in the present century as the discovery during World War II, of the selective weedicidal action of chlorinated phenoxyacetic acids. The crop acreage that benefits today from chemical weed control exceeds a hundred million acres. Only a small fraction of this acreage lies within the tropics. Nevertheless, it can be argued that chemical weed control has a particularly important role in the tropics as tillage with soil-pulverizing implements can effect near-irreparable damage to tropical soils.

The practice of transplanting rice has been general wherever farmers desired effective weed control, and profusely tillering forms have been popular as they contribute to lower labour costs. With the recent availability of selective weedicides the previous objection to direct seeding no longer exists, and breeding emphasis has moved from the yield component, ear number per plant, to ear weight.

Deficiencies in institutional structure appear to have impeded research advances in Sri Lanka in recent years: Farmers' fields

must progressively replace the experiment stations as the venue of research. Nevertheless, the present accumulation of technological data is adequate for the purposes of the country's agricultural strategy. In Sri Lanka, the farming practices that have hardened into tradition probably arose out of considerations that have since lost their cogency. Much is blamed – often unjustifiably– on the conservatism of the peasant farmer, but he would prove more receptive to technological advances if the economic constraints that circumscribe him are alleviated.

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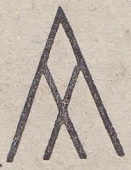

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