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RAPPORTEUR'S REPORT

ON

ECONOMIC PROBLEMS OF PLANTATIONS

RAPPORTEUR: GOUTAM K. SARKAR

Head of the Department of Agricultural Economics
Faculty of Agriculture, University of Kalyani
Mohanpur, Nadia, West Bengal

In all, 14 papers are presented for discussion on the subject. Twelve of these deal with the tea industry—the premier plantation industry of the country—while one paper is concerned with the coffee industry and two papers deal with the horticultural plantations. A review of the papers dealing with the tea industry may be taken up first.

I

Although tea enjoys not a very important position in the world agricultural economy, tea production is of major importance to a number of developing countries, including India, primarily for the contributions of the tea industry to the foreign exchange earnings, to the national exchequer and to the employment of labour; and its supporting role to the plywood, fertilizer and transport industries. The role that the industry plays in the country's economy has been clearly brought out in the writings of Debasish Gohain and M. Barkataky, P. C. Goswami, J. S. Sisodia, and Prasanta Kumar Bhanja, while Ajit Kumar Bora and Hiranmay Das have highlighted its particular importance in the economy of the State of Assam. One may also note that the tea industry has made appreciable contributions to the development of social overheads too, *viz.*, railways, roads, schools and hospitals, the provision of wholesome drinking water, etc. The far-reaching effects of these infra-structures in the tea-producing regions can hardly be over-stressed.

It is well known that black tea production has been carried out largely in plantations, the distinguishing features of which are the employment of a large number of skilled and unskilled workers and the centralized management of production and marketing, besides the large scale of operation. However, although plantations are more important in the tea economy of India, a large number of small holdings exist alongside them, especially in South India, and the papers of M. Halayya and A. K. Bora—especially that of the former—very aptly focus attention on these small units.

Large estates facilitate the adoption of improved cultural techniques and thereby lead to increased productivity. And substantial economies of management and marketing result from the vertical combination of ownership of tea estates and factories. A small estate cannot raise adequate green leaf to economically justify the construction and operation of a tea factory of the smallest size

and has to depend on 'bought-leaf factories,' the evils of which system have been highlighted in the papers of Halayya and Bora.

One is thus led to the important question of the optimum size of tea holdings. A statistical analysis of the size-productivity or more properly, the size-cost relationship becomes imperative in this connection. The Survey conducted by the Tea Board covering 135 single-estate tea companies in India over the years 1958-62 revealed that estates between 300 and 400 hectares had the highest productivity per unit area as also, the lowest unit costs of production.[1] Bora, Gohain and Barkataky, and V. Rajagopalan and V. Meenakshisundaram have also made some references to the size-productivity relationship in the industry. However, it must be emphasized that much more investigation remains to be done than has been conducted so far in the way of ascertaining the exact requirements of technically efficient tea production. The large disparities between the productive efficiencies of different estates have been statistically verified, but not much fruitful work has been done about pinpointing the factors accounting for these inter-farm differences in productive efficiency.

Turning to the trends in tea production and acreage, it was statistically shown by several contributors that while output, area under tea, and yield per unit area have gone up in the post-war era, production expansion has been achieved mainly through higher yields rather than expanded acreage. One should however note that although from year to year, acreage under tea may be modified to some extent, the effect of a change in *total* rather than in *mature* area on the production of tea (unlike annual crops) in a particular year is virtually nil, the dominant factors in current production being past changes in acreage and the conditions affecting productivity of mature estates. That is to say, tea being a tree crop with a long gestation period, current output divided by the existing total (rather than the productive) acreage would not give the real current yield figure.

While production of tea in India has increased in the post-war period, the country's share in the world total has gone down from 43.6 per cent in 1951 to 32.7 per cent in 1967 (B. Sahoo). This declining relative importance of India (and Ceylon) in the light of the notable advances made by the newly emerging tea-producing countries of East Africa and Latin America is also reported by Goswami. A statistical computation of the relative growth rates of output and the indices of year-to-year fluctuations could have been usefully incorporated in some of the papers.

The relatively slower growth in tea acreage and production (as also exports) in India, as compared with the East African countries, has been due mainly to higher costs of production in the former, including taxes and labour expenses in particular (Bora). One may also note that the withdrawal of the African countries from the International Tea Agreement in 1947 enabled these countries to expand their acreage under tea more freely.

Tea being a tree crop, its future course of output will depend, barring natural factors, predominantly on (*i*) the existing and the future number of tea bushes, (*ii*) their age-composition, and (*iii*) technological progress.

1. Report on Financial and Cost Survey of Tea Plantation and Industry, Tea Board, Calcutta, 1966.

While it is extremely difficult to estimate in advance the impact of the third factor, lack of adequate statistical data regarding the first two renders the task of production forecast more complicated. And particularly difficult is the task of predicting future expansion of production by small growers, for their output is often unrecorded or incorrectly reported. In any case, projections based on the statistical extrapolation of past trends have to be modified by considering special developments expected to occur during the projection period, including declared changes in government policies. In this connection, the recent modifications in tax structure and the increased attention given by the Tea Board to replantation with superior tea strains, as pointed out by several contributors, need to be taken into particular consideration. Thus according to the recent F.A.O. projections, tea output in India is likely to reach 475 million kgs. in 1975 (M.L Manrai, Goswami). The Central Government has of late decided to step up the annual rate of replantation with higher-yielding varieties from 0.6 to 2 per cent of the total tea acreage, so that output in 1975, when these new bushes would be maturing, might very well reach the projected figure of the F.A.O.

II

Turning to tea consumption, some statistics regarding domestic and overseas absorption are provided in Goswami's paper. He however has not indicated the exact nature of these consumption data. Admittedly, there are serious problems involved in measuring actual tea consumption. And since organized surveys regularly recording actual amounts of tea consumed in the country have been scarce, the available consumption figures are not dependable. In most cases they have been estimated from data on tea production adjusted for exports, imports, and inventory variations. But little reliable statistics of inventories at various levels are available. The consumption figures of tea, as of many other agricultural commodities, therefore, generally refer to the "gross" amounts available for consumption and should not be taken as fully reliable indicators of the quantities actually consumed. To smooth out variations in inventories, centred three-year moving averages might have been used, so that figures obtained thereby could give a somewhat better estimate of the net availability for consumption, or more properly, the 'effective supply' in the market. Despite this caveat, however, Goswami rightly concludes that while per capita consumption of tea in India remains at a very low level, with general economic development and a rise in per capita income internal consumption per head is likely to expand materially, as in the recent past.

This leads one to the income (and price) responsiveness of the demand for tea in a low income country like India. While several studies have been conducted on the responsiveness of the demand for tea to income and price changes in the high income tea-importing countries, reliable elasticity estimates for low income countries are extremely scanty. In the paper by J. S. Sharma, I. J. Singh and J. P. Mishra, a worthwhile attempt has been made to estimate the income and price elasticity coefficients of the demand for tea in this country, but their model has been partly vitiated by the use of wholesale prices rather than consumer (retail) prices which evidently should have figured as the independent price variable in the system. They have also not explained the nature of the consumption data

used. Anyway, according to their study, while the demand for tea is highly responsive to income changes, the effect of price changes seems to be insignificant. Thus the basic nature of their findings is in conformity with that obtained by the present rapporteur on the basis of a similar study.[2] Using their elasticity estimates, the above writers have attempted a projection of per capita consumption of tea in the country and hold that a rise to the extent of 75 per cent in 1981, as compared with 1967, is possible.

III

The marketing problems of tea have been rather sparsely dealt with by the contributors, only Goswami, Gohain and Barkataky, and Rajagopalan and Meenakshisundaram making cursory references to the subject.

Although tea producers have used three selling methods, *viz.*, forward sales, private sales and public auctions, the auction system has been found to be the most rewarding. While the mechanism of price formation in the tea auctions does not rigorously conform to the equilibrium model of economic theory, the auction prices very closely reflect the prevailing supply and demand conditions of the commodity. Gohain and Barkataky rightly use the term 'computerised buying' in this connection. In the post-war period, the London auctions have ceased to be of such exclusive importance as in the past, and the Far Eastern auctions at Calcutta and Colombo have become equally important. The Cochin auctions are also growing in importance (Goswami), while new auction markets have been opened at Amritsar and Coonoor in the country. This has eliminated a part of the middlemen's commission and has helped raise the effective prices of teas of Indian origin. In any case, the London prices do not constitute as good a barometer of world prices of the commodity as in the past.

The deficiencies of the auction markets deserve a careful scrutiny and Goswami has pointed out the difficulties encountered by the Indian tea planters in getting good prices, owing to the preferential treatment meted out by brokers to selected companies. Rajagopalan and Meenakshisundaram also refer to market imperfections—"the market structure bordering oligopsony or near-monopsony"—but empirical evidences to indicate the nature and degree of non-competitiveness have not been adduced in support of the contention. Over a decade back, the Plantation Inquiry Commission marshalled varied evidences concerning buyer and seller concentration in the Calcutta auction market, but a more recent study of the existence of monopoly conditions and restrictive practices, as also the extent to which these operate against public interest could have been fruitfully undertaken. Also conspicuous by its absence is an analysis of inter-temporal price fluctuations of tea and of the more important problem of price differentials between different qualities—the so-called 'concertina effect'—an analysis that would have improved one's understanding of the disturbing cross-currents in the tea economy. For obviously, the producers of common teas have been more hard hit by the existing depression than those of quality teas, the concertina having been a salient eature of tea markets, with buyers becoming highly selective.

2. Refer G. K. Sarkar, "Elasticities of Demand for Tea in a Low-income Country : An Econometric Note," *Arthaniti*, Vol. X, Nos. 1 & 2, January and July, 1967.

The developments in tea exports have, of course, received an extensive treatment by most of the paper-writers on the tea industry. Goswami points to the declining percentage share of Indian tea exports in the world total, as compared with Ceylon and East Africa, while Sisodia has indicated the declining share of tea in the total export earnings of India (and Ceylon), but the recent trends in the total and unit values of tea exports (which also have failed to register an upward tendency) have not figured in any of the papers. And virtually no attention has been paid to the dynamics of concentration of Indian tea exports, which has important bearing on the stability of the tea industry, although Goswami has provided some evidence of the continuing excessive dependence of the Indian tea industry on the British import market, as contrasted with its Ceylonese counterpart. Furthermore, a study of the export-production ratios would attest to the fact that the tea trade did not increase in line with output and the impressive increase in domestic retention (Goswami, Das) absorbed the excess.

Tea has been subject to a number of trade obstacles in the form of taxes in the importing countries, as also in this country (import and export duties, cess and sales taxes, excise duties, road and entry taxes, etc.), although these obstacles are less severe than those in respect of coffee. The imposition of taxes in the high income importing countries was rendered possible by the low price elasticity of import demand for the commodity. Even in several relatively low income tea-importing countries like Japan, Iran, Iraq, Saudi Arabia, Sudan, and the U.A.R., the commodity is subject to fairly high import duties (Sisodia). As regards the taxes on tea within the country and their recent modifications, the papers of Sahoo, Goswami, and Rajagopalan and Meenakshisundaram contain some discussions. Sahoo estimates that the taxes on Lakhimpur and Cachar teas as per cent of costs of production in 1968-69 were 31 and 30 respectively. Such a heavy tax burden must have militated against increased tea exports from the country. It seems that the Government has been guided by a notion that since the import demand for tea is generally price insensitive in the high income countries, the tax burden could be shifted to the consumers in importing countries. However, the authorities have admittedly underrated the severity of competition from other countries in the world market, mainly the East African countries. Any attempt at the measurement of the relevant elasticities of substitution in this connection has however been conspicuous by its absence in the papers presented. The potential effects of the reduction of taxes in the importing countries on the expansion of tea exports have also not been explored.

None of the papers has undertaken a study of the future prospects of tea trade. In terms of export availability (projected production less projected intake), the F.A.O. estimated for India the figures of 243 (high income) and 262 (low income) million kgs. for 1975 in its recent projections for agricultural commodities.[3] Although Goswami does not explain the basis of his calculation, he places it at 250-275 million kgs. while the rationale of Das's plea for an additional output of 150 million lbs. in 1971, as compared with 1966, is not quite clear. However, considerations of the Engel elasticities in high income countries and the balance of payments problems in developing countries suggest that India (and tea-exporting countries as a whole) might not expect a greater rise in import demand than by about 1.6 to 2 per cent a year over the course of the next decade[4]

3. F.A.O. : Agricultural Commodities—Projections for 1975 and 1985, Rome, 1967.
4. *ibid.*

so that, with rapidly increasing supplies, total export earnings from the commodity would fall. Of course, importing countries may make some contribution to the solution of the problem by the avoidance of the existing obstacles on import demand in the form of fiscal and other charges, and while some action has been taken towards such liberalization of commercial policies (as for instance, by the E.E.C. countries which agreed to the suspension of the common external tariff on tea from the beginning of January, 1964), there is more that could be done. Nonetheless, there is not much scope in this area, for even a complete abolition of such charges would not have a major effect in boosting export earnings from tea owing to its very low price elasticities of demand in the leading import markets. In sum, a policy of exporting more tea at lower prices under conditions of a surplus would be inconsistent with economic logic and the best line of defence in the short run would be the initiation of an appropriate stabilization scheme through international agreement. The Mauritius conference of tea-producing and tea-importing countries has made a welcome move in this direction; however, but for a passing reference in Goswami's paper, this vitally important issue, about which India has a unique responsibility, has not been acknowledged in any of the papers.

IV

The tea industry has already run into a situation of glut (Gohain and Barkataky, Goswami) which is plainly disquieting for the producers. Increases in population and real incomes have failed to generate appreciable advances in the demand for tea and thus the consumption of the commodity has increased only sluggishly over time. Superimposed on this sluggish trend has been the massive expansion of output causing tea prices to sag steadily. Goswami has given an indication of the falling prices in the London auctions, but a study of the trends in the real prices of the commodity in all the leading auction markets in relation to other commodities would have been more revealing. On the other hand, costs of production—labour expenses and taxes in particular—have gone up sharply in the post-war period (Sahoo, Bhanja, Goswami, Rajagopalan and Meenakshisundaram, Sisodia). Consequently, the depressing effect of falling prices has been transmitted in a greater measure to producer incomes which have suffered considerable reductions, as reflected in the dwindling profit rates (Sisodia, Sahoo, Bora). Some relief in the way of tax modifications have of late been granted, but the net impact has not yet been perceptible (Sisodia). Even the currency depreciation has not had an appreciably favourable effect upon tea exports. And what has not been stressed is the significant development that the common tea producers have been particularly hard hit owing to the 'concertina' effect, as referred to earlier.

While an export quota agreement is a short run expedient, the two long run remedies for the industry's problems are: (*i*) rationalization, and (*ii*) demand promotion. One may designate as rationalization any measure that is meant to raise the level of output and to curtail unit costs of production and marketing. It also refers to improvement in the quality of the product. Accordingly, it may be said to include both technological improvements and optimum factor utili-

zation, *i.e.*, fuller utilization of the installed capacity, and the two should be conceptually distinguished.

Technological improvements or 'innovations' imply the adoption of new and previously unknown methods of production or new inputs rendered possible through improved knowledge from research and experience. Their effect is to yield a new and higher production function and lower per unit costs in the ranges of output in which producers plan to operate. These innovations may be said to fall in two categories: (*i*) divisible and (*ii*) indivisible. The divisible innovations, *e.g.*, the use of the new or superior types of non-fixed inputs open up the technical possibility of producing the whole range of a given output schedule at lower unit costs. The indivisible innovations involve the use of new, "lumpy" factor units which can be taken advantage of only when output is above a certain level, leading to a reduction in the average costs of production (*e.g.*, the use of machineries).

The first type of innovations, as described above, would constitute the main source of the future increases in tea production. In this group may be included better organization, supervision and co-ordination of various operations in the field and the factory (Das) and Bora refers to the superiority of European management over Indian management in the tea estates of the country in this connection. Among the various other forms of improvements suggested in this sphere, the use of superior tea strains, *i.e.*, replantation with better varieties (that had been restricted under the International Tea Agreements of the past) has been rightly stressed in the papers of Bora, Sisodia, and Sahoo. The tea plant is naturally a wasting asset and generally speaking, the yields of bushes over 20 years old fall progressively. Bora has produced evidence to show that the size-group 3-10 years is the most productive group of bushes, followed by the 11-20 years group, and both Sisodia and Bora have pointed out that in India more than half of the existing bushes are too old and uneconomic. A programme of replantation involving the combination of young bushes with better strains of the crop—the policy seemingly myopic to some producers owning old bushes that are still yielding—would not only reduce costs, but would also serve the very important purpose of improving the quality of the product.

As one would expect, the problems of wages and labour in the tea industry have figured importantly in several papers (Das, Bhanja, Sahoo, Bora, Gohain and Barkataky). The plantation system, as pointed out at the outset, relies heavily on the presence of a large supply of labourers. In low income agricultural countries like India, with the intensive use of labour, the marginal productivity of this factor is low, and so are the real wages. The low real earnings in the subsistence or the peasant sector should set a floor to wages in the capitalist plantation sector. However, in practice, wages have been substantially higher than this owing to government interference and the existence of powerful trade unions. Furthermore, over and above money wages, the tea companies have to provide for other amenities like housing, medical, and educational facilities to estate labourers.

Thus for tea production, the labour costs constitute a significantly large part of the total expenses of all categories of plantations—possibly more than for most other plantation crops—although, there are inter-farm cost differences. Goswami

has found that "at the present yield per hectare labour cost alone constitutes Rs. 2 to Rs. 3 per kg. of tea."

Sahoo and Bhanja have adduced ample evidences to show how there has been a rise in the wages of tea plantation labour through government and trade union initiatives in the post-war era. Thus, while the prices of tea machinery have gone up as a part of the rise in the general price level, it has presumably been swamped by a more rapid rise in wage rates. This has given a powerful stimulus to the replacement of labour by machinery in the field and the factory. In physical terms, *i.e.*, adjusting for cost-price changes, the industry has been using progressively more machinery and equipment, with a steady rise in the capital-labour ratio and in the output per man-day.

Of course, the existence of a large volume of unemployment in the country has necessarily hindered the pace of mechanization in the tea industry, as in many other industries. While Bhanja has correctly diagnosed the genesis of the declining employment in the tea plantation industry from the economic point of view, he seems to have been ethically disturbed by this development. Gohain and Barkataky, however, display a more dispassionate(?) view when, realizing the rationale of capital intensification in the tea industry, they recommend the provision of gainful employment to the displaced labour force outside the industry, preferably through the development of ancillary undertakings, after imparting to the retrenched workers the necessary training. In a similar vein, Sahoo pleads for a work orientation towards the most efficient line of production and for wage regulation in accordance with productivity. However, the crux of the problem of modernization of tea plantations, *viz.*, the mechanization of plucking, which constitutes the most expensive individual operation for a tea enterprise, has been overlooked by the contributors.

One may note that the problems of the diffusion of technological changes are somewhat less for the relatively organized tea plantation industry than for many agricultural industries. Leaving aside sociological and demographical problems, the principal difficulties in the way of the diffusion of innovations are economic—stemming primarily from the fact that in many cases the initial capital expenditure is beyond the means of most estates, although in some of the larger tea plantations there is a built-in capacity for adopting technological improvements. This point has been highlighted in the papers of Gohain and Barkataky, Bora, Sisodia, Sahoo, and Goswami. The following measures are recommended for mitigating the economic difficulties of adoption:

The first and the foremost measure called for is the amalgamation of small tea estates. To quote Halayya, who has skilfully reviewed the weaknesses of small units and has put forth certain challenging and constructive ideas: "The survival and progress of the tea industry, as we have known it for over a century, will now depend upon the reorganization and consolidation of the units into larger undertakings." Bora has also referred to this indispensable pre-requisite to the industry's stability and development. And admittedly, much more remains to be done through government initiative and incentives to remodel the sizes of existing estates for conforming to the needs of the changing pace and type of technological advance. Both the Tea Finance Committee (1964) and the

High-Powered Barooah Committee (1969) recommended that all surplus land suitable for tea plantation within the existing grants of tea gardens should be exempted from resumption or requisition by the State Governments under the Estate Acquisition Acts and wherever the tea estates have insufficient land for viable expansion, additional land should be made available from suitable areas around the estates.

In the absence of amalgamation of small units, co-operative ownership and use of larger machines should be encouraged, as far as practicable. And what is particularly important, there must be provision of credit facilities to tea producers (Bora, Gohain and Barkataky, Goswami, Das) by the Government and the nationalised commercial banks, as also other agencies like the Tea Board, the Agricultural Refinance Corporation and the State Finance Corporations, on a scale much larger than at present. Das has also recommended the setting up of a separate Finance Corporation for the tea industry. Alongside this, there is evidently a pressing need for further tax modifications, especially in respect of the excise duties, as recommended by the Barooah Committee (Bora) as also, of carriage and entry taxes (Goswami), for the high tax burden has had a debilitating effect on capital investment and the loan repayment capacity of productive units through reduced profit margins (Sisodia, M. L. Manrai, Goswami).

V

The most desirable and productive course of action for the industry would be the creation of new demand for tea. There is admittedly a great deal of scope for demand promotion of the commodity in many import markets through vigorous measures on a wide front. Sisodia has complained of the inefficacy of the Indian Tea Board in this respect compared with the aggressive sales promotion campaigns waged by Ceylon. However, there are good reasons for believing that sales promotion is an international job, and a centralized promotional drive conducted by a group of tea-producing countries would be more promising than piecemeal, and often wasteful campaigns by individual tea-producing countries. A joint organization like the International Tea Market Expansion Board (IMEB)—whose valuable work was discontinued in 1952 much to the detriment of producer interests—is desirable inasmuch as an agreed common policy regarding sales promotion conducted through it would have better psychological effects on consumers, and the expenses could be shared according to an agreed formula based on production and exports.[5] Moreover, a good part of the success in this sphere would depend upon a concerted drive towards the popularisation of instant teas and tea bags—a point not explored in detail in any of the papers. Within the country, demand will maintain its uptrend, but there is no gainsaying that a "positive policy of encouraging internal consumption" (Das) through a constraint on exports will be ill-conceived (Goswami). For, in spite of the strategic importance of export diversification to the low income tea-producing countries like India for abating their reliance upon primary exports (whose prices have been declining since the early 'fifties), these countries would continue to depend substantially on these for exchange earnings in the early stages of development.

5. Refer G. K. Sarkar, "Some Thoughts on the World Tea Economy," *The Indian Journal of Economics*, Vol. XLVI, No. 180, July, 1965.

A most fruitful line of approach would be for the tea producers to see if they could step up the output of quality teas at the cost of common teas, for the demand for quality teas has been relatively well-maintained, and these have never suffered the same severe price declines as have the inferior grades.[6] Although some of the contributors have offered a few hints on the need for quality improvement, this aspect of the problem merits a much fuller consideration.

VI

There is one paper on coffee which deals with the International Coffee Agreement. N. Debnath has mainly analysed the pros and cons of India's participation in the Agreement. He concludes that while the Coffee Agreement failed to allocate export quotas to India on a fully rational basis (owing to its failure to take into account the increasing trends in coffee production in the country), India's non-participation in the Agreement would have had more unfortunate consequences on her coffee economy. A proper understanding of the prospects of Indian coffee can however be built only on a rigorous appraisal of the structure and problems of the coffee economy of the country—an important area toward which much systematic investigation could have been directed.

As regards other plantation crops, the two papers—those of T. Y. Patil, B. J. Hinge and K. D. Rajmane, and M. G. Chandrachud—deal with the horticultural plantations of Maharashtra. The problems of these crops, which have important export prospects, have been pinpointed and remedial measures recommended. While Chandrachud has emphasized the need for a more extensive and organized system of co-operative finance, Patil, Hinge and Rajmane have stressed the importance of the establishment of processing units for increasing the producer's share of the consumer's rupee. The cases of these plantations require serious thought and need to be subjected to further careful, empirical analysis.

Finally, it would be erroneous to leave the impression that the problems of the other plantation crops of the country, including rubber and cinchona in particular, do not deserve any attention of agricultural economists; it would be fair to say that their inclusion in a few papers would have enriched this section materially.

VII

On the basis of the papers presented and in the light of the foregoing review, the following issues may be usefully taken up for detailed group discussions at the Conference:

(1) The exact scope of modernization of tea production both in the field and the factory and the economic implications of the mechanization of harvesting.

(2) The implications of the proposed international export regulation agreement on tea in the changed context of the world tea economy and India's role in it.

6. See Sidney Wells, "Foreign Trade : A Commodity Study" in The Crisis of Indian Planning, Paul Streeten and Michael Lipton (Ed.), Oxford University Press, 1968.

(3) The possible impact of the proposed British entry into the European Economic Community on the future of the tea industry.

(4) The role of instant teas and tea bags in the creation of new demand for tea and the countrywise scope for increasing tea imports for consumption.

(5) The scope and significance of quality maintenance and improvement of Indian tea.

(6) The effectiveness of production control in the tea industry.

(7) Problems of the Indian coffee industry with particular reference to production and marketing.

(8) Problems of other plantation crops of India, including rubber and cinchona.

(9) The future of plantations vis-a-vis small holdings—social and economic considerations.