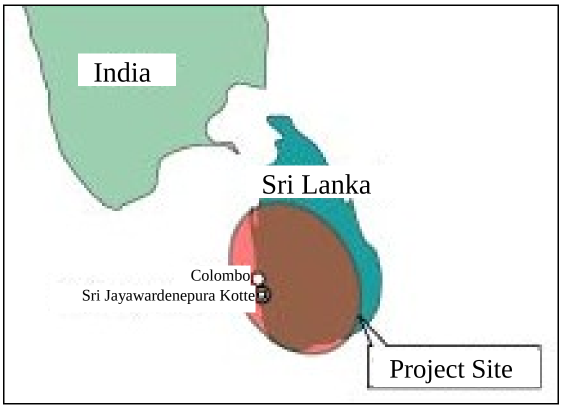
Sri Lanka

Plantation Reform Project

Field Survey: July-August 2003

1. Project Profile and Japan's ODA Loan



The area southwest of Colombo

Tea plantation of a target RPC (Pussellawa Plantation)

1.1. Background

The plantation sector in Sri Lanka has been playing an extremely important role in the country's economy. The export tax on plantation crops made up approx. 20% of total government revenue in 1975, and plantation crop exports accounted for over 90% of total export revenue in 1965, and over 70% in the late 1970s. As the sector's international competitiveness has declined since 1977, its economic importance has decreased. Still, at the time of appraisal in 1996, the plantation sector contributed to approx. 4% of nominal GDP and approx. 18% of total exports, and employed approx. 16% of the working population, making it an important industry that earned foreign currency and created jobs.

Sri Lanka's plantation sector was divided roughly into two categories: large, state-owned plantations of 50 acres (approx. 20 ha) or over and small, private plantations of less than 50 acres. At the state-owned plantations (two major public plantation corporations), which were placed under government management in the 1970s, productivity has declined substantially because of the public sector's inefficient management practices. In addition, the financial conditions of two major public plantation corporations have deteriorated due to the higher production costs brought about by redundant workers, labor restrictions, and government wage hikes of plantation workers made in disregard of profitability. Decreased investments led to lower productivity, creating a vicious cycle.

In consideration of these situation, the government decided to divide the two major public corporations into 22 (later 23) public companies (RPC[1]: Regional Plantation Company) in June 1992 as part of economic structural reforms and partially privatize them by transferring only the management rights to private companies (MC: Management Company). Although the situation improved slightly from the time of the two major public corporations, there was no significant improvement, due to difficulty in raising funds resulting from the fact that MCs did not possess

[1] 23 RPCs are located in 14 regions in Sri Lanka (Puttalam, Kurunegala, Matale, Kandy, Nuwera-Eliya, Badulla, Monaragala, Kegalle, Ratnapura, Gampaha, Colombo, Kalutara, Galle, Matara).

their assets, and the underdeveloped domestic long-term financial market,

Under such a circumstances, the government decided full privatization of 23 RPCs. After the privatization, the RPCs drew up an investment plan for the initial five years in order to solve problems caused by restrictions of new investment , such as 1) making up most of plantation by less productive old trees, 2) high vacancy rate, and 3) low quality of the existing varieties by supplemental planting or replanting to improve productivity, repairing aging processing facilities, and upgrading outdated processing facilities. However, because the domestic long-term financial market has not been well established, it remained difficult to raise funds for new investments.

1.2. Objectives

Project objectives were supporting the privatization process of the underproductive public plantation sector, by providing long-term fund in manner of Two Steps Loans (TSL) to privatized regional plantation companies (RPCs), to improve productivity and plantation workers' living environment.

1.3. Project Scope

The project is composed of "Part A: Profit Improvement Project" which provides funds for investment to RPC after the privatization in the form of loans via the Central Bank and the Participating Financial Institutions (PFIs), and "Part B: Project to Improve Plantation Workers' Living Environment" which provides a grant for the infrastructure development to improve plantation workers' living conditions and for forestation project around watersheds. The scope of each projects are as follows. Meanwhile, this was a co-financing project with the Asian Development Bank (ADB) and Yen-loan was funded to Part A (ADB provided funds for both Part A and Part B).

<u>Part A: Profit Improvement Project</u>

Funds to implement the following subprojects were loaned via the Participating Financial Institute (PFI), based on the improvement plans made by each RPCs.

(a) Plantation development
- Supplementary planting/replanting in low productive tea, rubber and coconut plantations (including the maintenance of immature plantations after the supplementary planting/replanting) and crop diversification

(b) Modernization of processing facilities
- Construction/improvement of tea, rubber and palm oil processing factories
- Construction of wastewater treatment plants annexed to rubber processing factories

(c) Procurement of machinery, etc.
- Improvement of small-scale hydraulic power generating facilities
- Procurement of vehicles (automobiles, trucks, tractors, motor cycles)
- Procurement of plantation machinery and office machinery used for plantation management

Part B : Project to Improve Plantation Workers' Living Environment

The Ministry of Plantation Industries provides fund to implement subprojects of forestation, improvement of plantation lodgings, etc. for RPC as a grant, and provides vocational training to redundant plantation workers based on the development plans made by each RPC.

(a) Forestation
- Forestation for fuel and timber around water catchment areas

(b) Improvement of plantation infrastructure
- Improvement of plantation lodgings, lavatories, water supply facilities and farm roads

(c) Organizational reinforcement
- Training to enhance technical skills and supervisory ability of RPC and the National Institute of Plantation Management (NIPM) staff
- Vocational training (in other industries) for redundant plantation workers

(d) Support to the Project Implementation Unit (PIU)
- Employment of staff and procurement of office machinery, vehicles, etc.

1.4. Borrower/Executing Agency

Government of the Democratic Socialist Republic of Sri Lanka/Central Bank of Sri Lanka, Ministry of Plantation Industries

1.5. Outline of Loan Agreement

Loan Amount/ Loan Disbursed Amount	4,076 million yen /4,076 million yen
Exchange of Notes/ Loan Agreement	May 1996/ October 1996
Terms and Conditions -Interest Rate -Repayment Period (Grace Period) -Procurement	 2.3% 30 years (10 years) General untied
Final Disbursement Date	November 2000

2. Results and Evaluation

2.1. Relevance

This project was a policy-based financing scheme in which the Sri Lankan government provided public fund loans for long-term development to fully privatized RPCs that had difficulty in raising funds from private financial institutions to develop plantations and upgrade processing facilities due to the underdeveloped domestic long-term financial market. Project objectives were to improve plantation sector productivity and to support RPC operations after privatization. In addition, component to improve plantation workers' living and working environment (Part B), had the social objective of enhancing the social status of plantation workers, who account for a large percentage of the working population. These objectives were consistent with the Sri Lankan government's development policy that attached importance to the plantation sector and promoted privatization. Therefore, the project plan was relevant at the time of appraisal.

As of 2001, the plantation sector's total production of tea, rubber and coconut accounted for 4.7% of Sri Lanka's GDP. The plantation sector, which acquired 796 million dollars of foreign currency and employed about 300,000 workers, maintained its position as an important foreign currency earner and provider of employment. In 2002, the Sri Lankan government set forth a new development and poverty reduction strategy “Regaining Sri Lanka,” which calls for improving the productivity of agriculture and industries, including the plantation sector. Raising plantation sector productivity has continuously been recognized as an important national development issue.

Based on the above facts, the project is still relevant at present.

According to the Ministry of Plantation Industries, 20 out of 23 RPCs have been completely privatized and the remaining three (Elkaduwa, Kurunagala and Chilaw) are scheduled to complete privatization from late half of 2003 to early half of 2004.

2.2. Efficiency

2.2.1. Output

The subprojects of Part A (profit improvement project) were 1) Plantation development, 2) Modernization of processing facilities and 3) Procurement of machinery. Although, plantation development and modernization of processing facilities of coconut and oil palm plantations were not carried out, these were small changes in the entire project (Table 3), and there was no significant change in any other main part of the project.

2.2.2. Project Period

The work period of Part A (profit improvement project) was scheduled for six years from 1996 to 2001, and was implemented as scheduled.

2.2.3. Project Cost

The project cost of Part A was planned at 107 million dollars (10,945 million yen, 5,663 million Rs.), including the ODA loan of 40 million dollars (4,076 million yen, 2,109 million Rs.), while the actual cost was 81 million dollars (11,562 million yen, 6,604 million Rs.), including the ODA loan of 28 million dollars (4,076 million yen, 2,328 million Rs.).

Of the project cost of Part A, 75% was to be financed by the Asian Development Bank and the Japan Bank for International Cooperation, and the remaining 25% was to be covered by loans from the PFIs’ own funds and the RPCs’ own funds (Table 1).

Table 1: Allocation of the Project Cost of Part A (Profit improvement Project)

Item	Currency Unit	Asian Development Bank (ADB)	Japan Bank for International Cooperation (JBIC)	Participating Financial Institutions (PFI)	Regional Plantation Companies (RPC)	Total
		75%		5%	20%	100%
Planned	million dollars	40.56	40.00	5.46	21.39	107.41
	million rupees	2,138	2,109	288	1,128	5,663
	million yen	4,133	4,076	556	2,180	10,945
Actual	million dollars	32.46	28.80	4.08	16.33	81.67
	million rupees	2,625	2,328	330	1,321	6,604
	million yen	4,595	4,076	578	2,313	11,562

(Source) Central Bank of Sri Lanka

(Note 1) Exchange rates: planned (1 dollar = 52.72 rupees = 101.91 yen), actual (1 dollar = 80.86 rupees = 141.57 yen)

(Note 2) The 20% share of RPCs includes labor in addition to their own funds.

The terms and conditions of the sub-loans from PFIs to RPCs as the end users were as follows: the interest rate was the Average Weighted Prime Rate (AWPR[2]), the repayment period was up to 15 years (including a grace period of up to five years), the amount was 0.1million-3million dollars per sub-loan, and the loan limit for an RPC was 10 million dollars (Fig.1). The sub-loans were extended to 20 fully privatized RPCs under the above terms and conditions. The number of sub-loans was 94 for plantation development (including 10 second loans from the revolving fund), 66 for the modernization of processing facilities (including two for environmental measures) and 65 for machinery procurement. Project cost distribution by subproject is 62% for plantation development, 25% for the modernization of processing facilities, and 13% for machinery procurement (Table 2).

Each of the sub-loans from PFIs to RPCs was provided at a fixed interest rate based on AWPR and was not able to refinace. Therefore, the interest to be paid by each RPC differed significantly (11- 20% or more) depending on the time the sub-loan was made. Therefore, a relatively large disparity in interest payments arose among RPCs. Moreover, subsequent moves in interest rates created a huge gap between the market interest rate (approx. 11% as of April 2003) and the borrowing interest rate.

Fig. 1: Flow of Funds in Part A

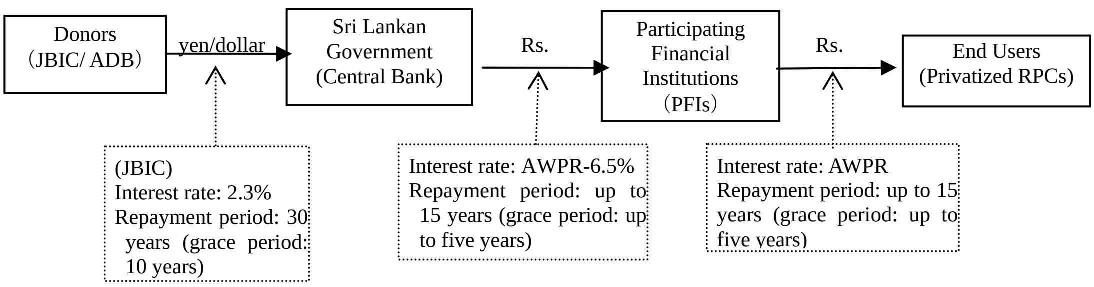


Table 2: Number Disbursed Sub-loans and Distribution of Project Costs in Part A

Purpose	Number of Sub-loans	Percentage of Project Costs
1) Development of plantations	94 (including 10 second loans from the revolving fund)	62%
2) Modernization of processing facilities	66 (including two for environmental measures)	25%
3) Procurement of machinery	65	13%

[2] AWPR (Average Weighted Prime Rate) is the weighted average rate of the prime rates of five major banks in Sri Lanka (Bank of Ceylon, Commercial Bank of Ceylon, Hatton National Bank, Sampath Bank, Seylan Bank). AWPR is subject to change every six months based on review by the Central Bank of Sri Lanka.

2.3. Effectiveness

2.3.1. Summary of Investment in Part A

Table 3 is a summary of investment for each subprojects in Part A such as the development of plantations, modernization of processing facilities, and procurement of machinery, etc. The achievement rates are over 74.9% in the subprojects except for projects relating to coconut and oil palm plantations, construction of rubber wood processing factories and small-scale hydraulic power generating facilities. The targets have mostly been achieved.

The coconut plantation subprojects were not implemented because Kurunagala Plantation and Chilaw Plantation, which were slated for coconut plantation development, had not been fully privatized within the implementation period due to the delay in the privatization process and these two RPCs were excluded from the target RPCs. Consequently, the sub-loans for the development of coconut plantations were not disbursed.

Table 3: Summary of Investment in Part A (Profit Improvement Project)
(as of December 2002)

Output of the Project	Plan	Result	Achievement Rate
1. Development of plantations			
1-1. Tea plantations			
(a) Replanting	4,854 ha	4,834 ha	99.6%
(b) Supplemental planting	2,897 ha	2,169 ha	74.9%
(c) Maintenance of immature trees	1,500 ha	3,090 ha	206.0%
1-2. Rubber plantations			
(a) Replanting	8,779 ha	9,992 ha	113.8%
(b) Maintenance of immature plantations (including supplementary planting)	16,174 ha	13,112 ha	81.1%
1-3. Coconut plantations			
(a) Replanting	300 ha	0 ha	0.0%
(b) Maintenance of immature plantations	100 ha	0 ha	0.0%
1-4. Oil palm plantations*			
(a) Planting	70 ha	0 ha	0.0%
(b) Maintenance of immature plantations	64 ha	0 ha	0.0%
1-5. Diversification of crops	850 ha	1,945 ha	228.8%
2. Modernization of processing facilities			
2-1. Modernization of tea processing facilities			
(a) Improvement of orthodox tea processing factories	193 places	202 places	104.7%
(b) Improvement and construction of CTC tea processing factories	23 places	23 places	100.0%
(c) Installation of decaffeinating tea processing machinery	—	1 place	—
(d) Improvement of factory buildings	—	94 places	—
2-2. Modernization of rubber processing facilities			
(a) Improvement of wastewater treatment facilities	—	2 places	—
(b) Improvement of rubber factories	58 places	46 places	79.3%
(c) Construction of latex concentrating factories	7 places	9 places	128.6%
(d) Construction of rubber timber processing factories	3 places	0	0.0%
(e) Improvement of factory buildings	—	26 places	—
2-3. Modernization of coconut and palm oil processing factories			
(a) Construction of coconut processing factories	11 places	0	0.0%
(b) Construction of palm oil processing factories	1 places	0	0.0%
3. Procurement of machinery, etc.			
3-1. Procurement of vehicles and agricultural machinery	—	1,023 units	—
3-2. Small-scale hydraulic power generating facilities	46 places	18 places	39.1%

(Source) JBIC appraisal document and the Ministry of Plantation Industries' project completion report "Plantation Reform Project" (May 2003).

(Note) Including sub-loans from the revolving fund (second loans)

*Development of oil palm plantations were not carried out. The conversion from rubber to oil palm is included in the category of crop diversification.

2.3.2. Outcomes of RPC's Productivity and Profitability

Among the 20 RPCs covered by the project, the performance of productivity and profitability varies because of differences in weather, geological conditions, main products, processing facilities, and the financial conditions of RPCs and their parent companies. The overall productivity and profitability trends are analyzed here based on the total and average data.

At a plantation, it takes five to six years from planting to the start of production. Therefore, when evaluating effectiveness by examining productivity and profitability, it should be taken into account that only a year has passed since the completion of some subprojects .

（1） Productivity and profitability of tea plantations

Table 4 shows the tea production of 20 target RPCs from 1996 through 2002. Tea production increased from 114,347 tons in 1996 to 128,183 tons in 1997, up 12.1％. Since then, it has remained at around 121,000 tons a year. According to an analysis of Central Bank of Sri Lanka, the sharp increase in 1997 is attributable to the favorable weather in that year, which led to higher tea production in the highlands, and due to improved cultivation method and management. One reason that production has not achieved the 1997 level since 1998 is that each RPC replanted old tea trees of low productivity and carried out supplemental planting using sub-loans provided under the project, which reduced the tea acreage.

At the time of appraisal, "5,200 ton tea production increase through replanting, supplemental planting and management reforms" was expected as a result of the project. Between 1996 when the project started and 2002 when the project was completed, tea production increased by 6,751 tons, well exceeding the target. In this regard, replanting, supplemental planting and machinery procurement under the project have made contributions. However, external factors, such as weather, seem to have a greater effect on plantation projects rather than replanting etc., because five to six years of growth after planting is necessary before production can begin.

Table 4: Total Tea Production of RPCs Covered by the Project

（Unit: tons）

Item	1996	1997	1998	1999	2000	2001	2002
Tea Production (Total of 20 RPCs)	114,347	128,183	121,211	118,460	122,990	121,088	121,098

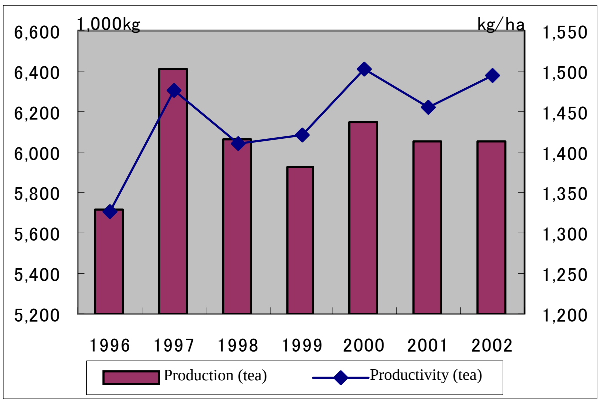
（Source） Based on RPCs' replies to the questionnaire.

The rise in tea plantation productivity is shown in Fig.2. The changes in productivity (production per ha) are linked with the changes in production volume. Productivity improved from 1,327 kg/ha in 1996 to 1,495 kg/ha in 2002, a 12.7% increase in six years.

Profitability of tea plantations is analyzed as follows.

As shown in Fig.3, unit sales had risen from 99.19Rs/kg in 1996 to 132.27Rs/kg

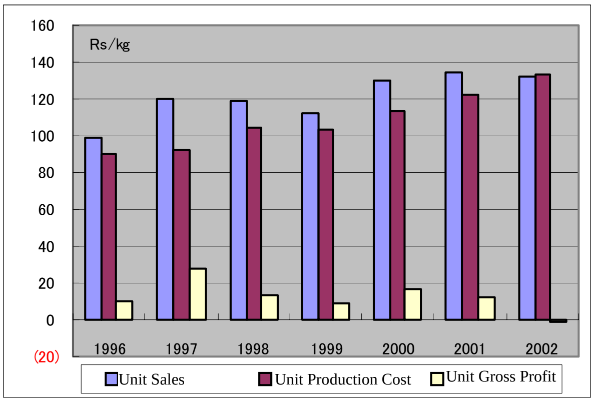
Fig. 2: Production and Productivity of Tea (average of 20 RPCs)



(Source) Based on RPCs' replies to the questionnaire.

in 2002, up 33.4% in six years. The reasons behind the steady increase in unit sales irrespective of the change in tea production volume include foreign exchange fluctuations (Table 6) as well as the higher quality of tea products achieved by upgrading tea processing factories. Unlike the investment in plantation development, which takes time to generate results, the effect of improving processing facilities can be seen at an early stage.

Fig.3: Profitability of Tea per Unit
(average of 20 RPCs)



(Source) Based on RPCs' replies to the questionnaire

The unit production cost had risen from 89.87Rs/kg in 1996 to 133.53Rs/kg in 2002, a 48.6% increase in six years. Although it is not necessarily appropriate to discuss the unit production cost on a general basis because it is affected by conditions unique to each RPC in addition to inflation, RPC management thinks one factor behind the higher unit production is that the plantation industry has strong labor unions, so the wages of plantation workers have been increasing by 15% every 2 years for political reasons independent of the profitability and productivity of RPCs.

As a result, the unit gross profit fell from 9.32Rs/kg in 1996 to △1.26Rs/kg in 2002, indicating that the profitability of tea plantations has declined.

（2） Productivity and profitability of rubber plantations

Table 5 shows the total rubber production of 17 rubber-producing RPCs out of 20 target RPCs from 1996 through 2002. Rubber production steadily increased until 1998 after marking 38,657 tons in 1996, then decreased to 32,615 tons in 2002, a 15.6% decline from 1996. The rubber production slump was caused by the fall in profitability from the downturn in international rubber prices since 1997 (Table 6), which lowered incentives for rubber production and discouraged active production expansion, as well as the labor shortage in suburban areas, among other factors.

Table 5: Total Rubber Production of RPCs Covered by the Project

（Unit: tons）

Item	1996	1997	1998	1999	2000	2001	2002
Rubber Production (total of 17 RPCs)	38,657	39,116	39,337	36,787	36,195	35,068	32,615

(Source) Based on RPCs' replies to the questionnaire.

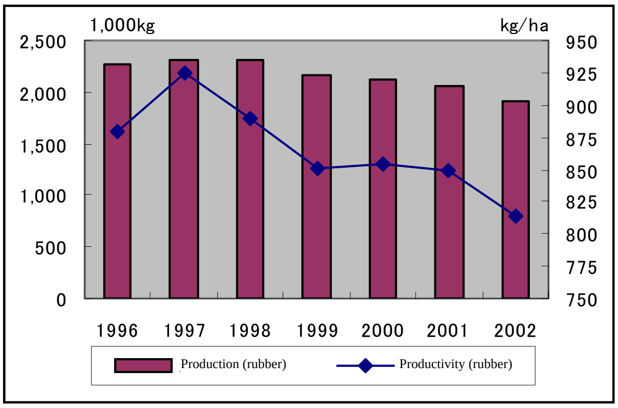
Table 6: Changes in Export Prices (FOB Prices) of Tea and Rubber

Item	1996	1997	1998	1999	2000	2001	2002*
Tea							
(1) FOB price (Rs/kg)	139.56	158.00	184.90	162.39	184.73	208.89	216.26
(2) FOB price (dollars/kg)	2.53	2.68	2.87	2.30	2.40	2.34	2.26
Rubber							
(1) FOB price (Rs/kg)	78.78	75.96	67.72	66.95	66.95	66.35	69.53
(2) FOB price (dollars/kg)	1.43	1.29	1.05	0.95	0.87	0.74	0.73
rupee/dollar exchange rate	55.271	58.995	64.450	70.635	77.005	89.383	95.662

(Source) Annual Report of the Central Bank of Sri Lanka
(Note 1)*Data for 2002 are estimates.
(Note 2) The rupee/dollar exchange rate is quoted from IMF's International Financial Statistics Annual Average Exchange Rate (rf).

Fig. 4 shows the productivity of rubber plantations. Although the productivity temporarily increased to 924 kg/ha in 1997, it continued declining to reach 814 kg/ha in 2002, marking an 11.9% decrease in productivity from the 1996 level. The main reason for this is the drop of international rubber prices that led production reduction by RPCs. In the plantation sector, where the fixed ratio is high, productivity is greatly affected by production volume fluctuations.

Fig 4: Production and Producbility of Rubber
(average of 17 RPCs)



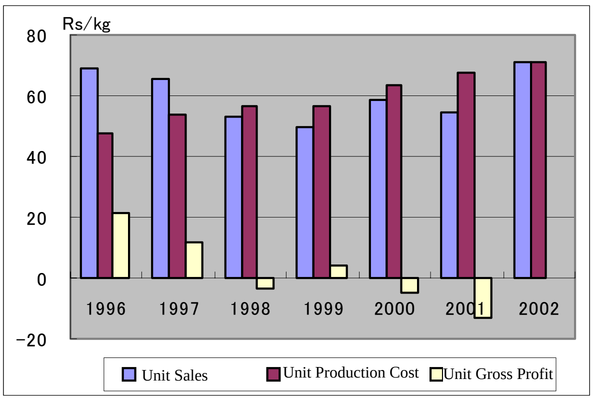
(Source) Based on RPCs' replies to the questionnaire
(Note) 17 out of 20 RPCs are engaged in the production of rubber.

The profitability of rubber plantations is analyzed as follows (Fig. 5).

Unit sales have decreased from 68.89 Rs/kg in 1996 to 54.30 Rs/kg in 2001, a 21.2% decrease in five years. This decrease is primarily attributable to the decline in international rubber prices. However, profitability picked up immensely to 71.34 Rs/kg in 2002 partly due to foreign exchange fluctuations, even though there was little change in international prices from 2001.

On the other hand, the unit production cost has been on the rise. It marked a substantial increase of 42.2% from 47.34 Rs/kg in 1996 to 67.31 Rs/kg in 2001. As with the tea plantations, RPC management thinks that, in addition to inflation, a periodic rise in wages of plantation workers for a political reason independent of the RPCs and the

Fig. 5: Profitability of Rubber per Unit
(average of 17 RPCs)



(Source) Based on RPCs' replies to the questionnaire
(Note) 17 out of 20 RPCs are engaged in the production of rubber.

plantation sector is a one of the main reason.

As a result, the unit gross profit has fallen from 21.55 Rs/kg in 1996 to △13.01 Rs/kg in 2001. Although it increased slightly in 2002 to 0.22 Rs/kg, circumstances are still tough for improvement of profitability.

（3） Summary[3]

In the summary of the above analysis, it is concluded that though tea plantation productivity has improved, profitability has not, while neither productivity nor profitability of rubber plantations has improved due to international price fluctuations and the increase in wages of plantation workers.

It is difficult to determine this project's degree of direct contribution to the improvement of the productivity and profitability of RPCs because the timing of evaluation and they are greatly affected by external conditions, such as fluctuations of international prices. Considering that it takes at least five to six years to see the results of investment in plantation development, the effectiveness of the project should be evaluated from a medium- to long-term perspective. However, it seems that efficiency has begun to gradually improve due to the modernization of processing facilities and agricultural machinery.

2.3.3. Achievements Concerning Crop Diversification

Crops were diversified in a total area of 1,945 ha (Table 3). In most cases, a switch was made from rubber to oil palm. Since oil palm takes five to six years from planting to harvest, it will take a while to obtain concrete results for the RPCs that implemented a partial conversion to oil palm.

Some plantations successfully cultivated and increased production of value-added crops such as strawberries (Kelani Valley Plantation), organic tea (Maskeliya Plantation) and cinnamon (Namunukula Plantation) (Table 7). Also, Hapugastenne Plantation and Udapussellawa Plantation started producing timber for furniture and railroad ties by making use of forest resources within the plantations.

Table 7: Results of Product Diversification

RPC	Product	Production (kg/year)	
		Before Project (1996)	After Completion (2002)
Kelani Valley PL	Strawberries	—	1,835 kg
Maskeliya PL	Organic Tea	46,346 kg	73,663 kg
Namunukula PL	Cinnamon	—	11,624 kg

(Source) Based on RPCs' replies to the questionnaire.

3 Additional information: the number of RPCs in the red has decreased from 18/22 companies before privatization (1992) to 9/20 companies after privatization (2002).

2.3.4. Summary of Investment in Part B

The plantation workers' living environment improvement project (Part B[4]) is partly funded by a grant from the Ministry of Plantation Industries based on the improvement plan made by each RPCs. The ministry provides grants for part of expenses necessary to implement the subprojects of forestation and improve plantation lodgings, etc. according to 1) the loan amount in Part A, 2) the scale of RPC, 3) the number of RPC employees and other factors. In addition, vocational training for redundant plantation workers was provided (Table 8).

As for forestation, a total area of 8,134 ha was forested (6,008 ha for fuel wood, 1,665 ha for timber and rubber wood, and 461 ha for sanctuary forest). The target achievement rate is 240.3% for the planting of trees for fuel and 83.3% for the planting of trees for timber and rubber wood.

As for the improvement of plantation infrastructure, 52,200 houses for plantation workers and 578 houses for management were repaired, 331 water supply facilities were repaired, 7,032 lavatories for plantation workers were installed, and a total of 1,426km of farm roads were improved. The target achievement rate is 149.1% for the repair of houses for plantation workers, 96.3% for the repair of houses for management, and 142.6% for the improvement of farm roads (see photographs on the next page).

As for organizational reinforcement, the program provided mainly 1) training for the employees of the National Institute of Plantation Management (NIPM), a public agency in charge of human resources development and technical cooperation with RPCs, 2) training for management and employees of RPCs and plantation workers, 3) a consulting service to reinforce NIPM's organizational ability, and 4) training for Project Implementation Unit (PIU) employees, covering 110,658 persons in total.

[4] Part B: The plantation workers' living environment improvement project was financed by the loan from the Asian Development Bank to the Sri Lankan government. The government (Ministry of Plantation Industries) provides the loaned funds in the form of grants to each RPC. The amount granted by the Ministry of Plantation Industries to each RPC is determined by taking into account the loan amount in Part A, the scale of RPC, the number of employees of RPC, etc.

Table 8: Project Results of Part B
(Plantation Workers' Living Environment Improvement Project)

Project Scope	Plan	Result	Achievement rate
1. Forestation			
1-1. For fuel	2,500 ha	6,008 ha	240.3%
1-2. For timber and rubber wood	2,000 ha	1,665 ha	83.3%
1-3. For sanctuary forest	—	461 ha	—
2. Improvement of plantation infrastructure			
2-1. Repair of houses for plantation workers	35,000 houses	52,200 houses	149.1%
2-2. Repair of houses for managements	600 houses	578 houses	96.3%
2-3. Improvement of water supply facilities (water storage tanks, wells, etc.)	—	331 repairs	—
2-4. Installation of toilets for plantation workers	—	7,032 units	—
2-5. Improvement of farm roads	1,000 km	1,426 km	142.6%
3. Organizational Reinforcement			
3-1. Training for plantation workers and employees			
(a) Directors/Senior Managers	—	1,366 persons	—
(b) Plantation Managers/Managers	—	5,255 persons	—
(c) Senior Line Managers	—	871 persons	—
(d) Clerical employees	—	14,593 persons	—
(e) Assistant Managers	—	4,721 persons	—
(f) Functional Executives	—	1,272 persons	—
(g) Plantation workers	—	82,580 persons	—
Total	—	110,658 persons	—

(Source) The project completion report of "Plantation Reform Project" by the Ministry of Plantation Industries (May 2003)

Photographs: Improvement of Plantation Infrastructure

Reroofing of houses for plantation workers (The multiple dwelling house at the top has been reroofed and the one at the bottom has yet to be reroofed)

A house for plantation workers and a well

Lavatory for plantation workers

2.4. Impact

2.4.1. Impact on the National Economy

The privatization of RPCs brought a profit of over 7,200 million Rs from sale of shares to the Sri Lankan government, which had been supporting the public plantation sector. In addition, the government received 230 million Rs a year as land rent until April 2002. The value generated by tea and rubber plantations in 2001 accounted for 2.7% of GDP, and these products, whose exports amounted to 714 million dollars (Table 9)[5], can bring in a great deal of foreign currency.

[5] Tea exports by 20 RPCs are estimated to have increased by approx. 1,500 million Rs. after the implementation of

This project, which is aimed at providing support for the privatization of RPCs, has indirectly had a positive impact on national finances through such support.

It should be mentioned that the Sri Lankan government (Ministry of Plantation Industries) continues sharing the costs of plantation projects such as Part B of this project by offering grants to support RPCs and not raising the land rent, etc.

Table 9: Tea and Rubber Production in the Sri Lankan Economy

Itme	1996	1997	1998	1999	2000	2001	2002*
Tea							
(1) Percentage in GDP	2.2%	2.4%	2.7%	2.2%	2.6%	2.3%	2.4%
(2) Exports (million Rs)	34,068	42,533	50,280	43,728	53,133	61,602	63,105
(3) Exports (million dollars)	424	719	780	621	700	690	660
Rubber							
(1) Percentage in GDP	0.9%	0.7%	0.5%	0.4%	0.4%	0.4%	0.5%
(2) Exports (million Rs)	5,753	4,640	2,808	2,305	2,179	2,129	2,552
(3) Exports (million dollars)	104	79	44	33	29	24	27

(Source) Annual Report of the Central Bank of Sri Lanka
(Note) *Data for 2002 are estimates.

2.4.2. Impact of Privatization

Each fully privatized RPCs were required to respond more closely to market and consumer needs than before. Therefore, they decided to proceed with efforts such as establishing direct sales channels and not going through the Colombo Tea Auction[6], reinforcing marketing activities, developing high-value-added crops, diversifying crops, and promoting effective land use.

2.4.3. Social Impact

JBIC carried out an ex-post monitoring survey of the project in 2001-2002 to examine the project's social impact on plantation workers[7]. The results are summarized below.

Meantime, this project did not require land acquisition or relocation of residents.

(1) Impact on plantation workers' living and working environment

The improvement of farm roads and the introduction of agricultural machinery and vehicles brought about higher living standards and convenience for plantation workers. For example, it has become possible to use a truck to convey the patient to the doctor in the event of sudden illness, and the improved roads have made it easier to drive vehicles at the plantation. Also, the introduction of advanced agricultural machinery and vehicles has increased work efficiency and reduced traveling time.

In addition to Part B of this project, each RPCs has been carrying out programs to improve plantation workers' living environment since 1997 with the support of other donors, including

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the project (increase in production x export price in 2002)

[6] Nearly 95% of tea produced in Sri Lanka is traded at the Colombo Tea Auction, where buyers have much greater power than producers, and it is said that producers are in an unfavorable position in the pricing of tea.

[7] In the socioeconomic study, a base line survey was conducted on 126 plantations randomly selected from 23 RPCs. Based on the results, we selected 22 out of the 126 plantations and conducted a plantation workers' household survey, focus group interview, and interviews with stakeholders including the management of each plantation, etc.

the repair of houses, water supply facilities, lavatories, clinics, day nurseries, etc.

Table 10 shows the evaluation of the above programs by beneficiaries based on the results of our survey (175 plantation worker households were surveyed). The improvement of houses for plantation workers and installation of lavatories has contributed significantly to the comfort and health of workers, and they are highly satisfied with these improvements. On the other hand, the beneficiaries' satisfaction level is low regarding water service, clinics and day nurseries because of problems concerning the operation and maintenance of the facilities as well as the methods and quality of service.

Table 10: Results of the Household Survey on the Improvement of Plantation Workers' Living Environment

Item	Number of Beneficiary Households (percentage against 175 households)	Recognition and Awareness of Improvement (percentage against total households)		
		Improved	Unchanged	Deteriorated
Reroofing of the workers' houses	104 (59%)	102 (98%)	1 (1%)	1 (1%)
Expansion of rooms in the workers' houses	44 (25%)	38 (86%)	5 (11%)	1 (3%)
Installation of water pipes to each household	15 (9%)	5 (33%)	7 (47%)	3 (20%)
Installation of lavatories in each household	127 (73%)	110 (87%)	12 (9%)	5 (4%)
Clinics	161 (92%)	59 (37%)	68 (42%)	34 (21%)
Day nurseries	169 (97%)	71 (42%)	72 (43%)	26 (15%)

(Source) Final report on a survey by JBIC (March 2002)
(Note) JBIC's survey targeted 175 households.

(2) Impact on plantation workers' motivation to work

The modernization of tea processing machineries brought direct impact to increase of the productivity and motivation of plantation workers. In addition, the improvement of farm roads and introduction of vehicles, which brought reduction of the hard works such as carrying the fertilizer and tea leaves, are the another factors for improving the worker's motivation. However, although the pruning by using machine can harvest a far larger volume of tea leaves than manual operation, it sometimes prunes more leaves than necessary, cutting young tea leaves not ready for harvest. Therefore, workers have not favorably evaluated the introduction of pruning machines. In addition, workers are not enthusiastic about mechanization as they fear they might lose their jobs if machines replace manual tea plucking and pruning.

2.4.4. Environmental Impact

Before the project, sufficient measures to protect the environment from the factory wastewater discharged in the process of producing rubber were not taken, and it was feared that this would adversely affect the soil and water in nearby areas and the residents' land use, water use and agriculture. Therefore, improvement of rubber factories' wastewater treatment plants was planned as a subproject, which was expected to help the improvement of the environment.

However, as profitability fell due to low international prices of rubber, most of investment in improvement of rubber plantations and modernization of outdated factory facilities was cut back.

As a result, only two wastewater treatment plants were improved under the project. Therefore, the project has had limited positive impact on the environment.

In the forestation under Part B, 8,124 ha of land was forested. This forestation has a positive impact on the environment by serving to prevent landslides and preserve the landscape.

The executing agency has not reported any negative impact of this project, nor was any observed in the field survey.

2.5 Sustainability

2.5.1. Management Structure of the Central Bank and Participating Financial Institutions (PFIs)

The Central Bank of Sri Lanka uses the Risk Weighted Capital Ratio (RWCR) as an indicator of the financial institutions' soundness in line with the unified international standard (BIS standard), which requires an RWCR of at least 9% for each bank. At present, all banks meet this standard (Table 11).

Table 11: Financial Indicator of Participating Financial Institutions (PFIs)

Item	NDB	DFCC	HNB	Seylan	BOS	CBC	Sampath
Total Assets	36,234	30,207	19,810	75,641	235,251	81,384	44,924
Equity Capital	6,451	7,627	5,881	3,845	12,500	7,918	2,979
RWCR*	21.1%	22.4%	11.4%	12.0%	12.4%	15.0%	13.1%
Total Income	5,094	4,338	12,033	10,427	25,124	8,900	5,590
Current Profit	836	1,131	486	985	996	1,310	494
ROA	2.2%	4.0%	0.6%	1.0%	0.5%	1.8%	1.1%

(Source) Annual report for 2002 by each PFI

(Note 1) $\text{*RWCR} = \dfrac{\text{Assets (Tier I + Tier II)} - \text{Deduction}}{\text{Risk Weighted Assets(Risk Weight} \times \text{Asset Amount)}}$ (Tier I = Core equity, Tier II = Supplemental equity)

(Note 2) NDB: National Development Bank; DFCC: Development Finance Corporation of Ceylon; HNB: Hatton National Bank Limited; Seylan: Seylan Bank Limited; BOS: Bank of Ceylon; CBC: Commercial Bank of Ceylon; Sampath: Sampath Bank Limited.

According to the interviews with PFIs, they monitor loans through 1) on-site inspection (at the time of loan disbursement and once or twice a year), 2) financial analysis based on annual reports, and 3) daily monitoring of receipts to and payments from the current account (NDB and DFCC, which do not have current accounts, closely monitor loan repayment instead). The Bank of Ceylon appoints Visiting Agents (former Superintendents of plantations = consultants familiar with plantation management) who conduct inspections of RPCs and evaluate their performance jointly with the bank staff on a regular basis. Some of them are more active in monitoring than others and attend meetings of the board of directors as observers, for example.

According to PFIs, the loan collection rate is 100% so far and no non-performing loans exist. This situation strongly reflects the agreement among the Ministry of Plantation Industries (MPI), PFIs and RPCs that top priority be given to debt repayment in order to prevent any credit problems for RPCs. To be specific, loans under this project were extended on condition that 1) MPI will freeze the land rent to be paid by each RPC to the government (MPI) after 2000[8], and that 2) RPCs' parent companies will reduce the management fees to be paid by RPCs to

[8] The land rent to be paid by each RPC to the government had been determined by indexation to the GDP deflator in the previous year and increased almost every year.

management companies[9] to ease RPCs' financial burdens.

2.5.2. Revolving Fund (Special Account for Second Loans)

In this project, a revolving fund program was planned under which second loans are extended to RPCs using the funds made available because of the gap between the period of sub-loan repayment by RPCs to PFIs and the period of ODA loan repayment by PFIs/Central Bank to JBIC. Presently, all revolving funds are managed by the Central Bank. Second loans using the revolving fund have been provided to a group of the seven most recently privatized RPCs[10] among the 20 RPCs. In 2002, a total of 225 million Rs were loaned from the revolving fund, all for the purpose of developing plantations.

The loans using the revolving fund were provided only in 2002 and have not been provided since 2003. According to the Central Bank, the "Plantation Development Project" is scheduled to be implemented as the second phase of this project (Plantation Reform Project) with the support of the Asian Development Bank (ADB). ADB is planning to transfer the revolving fund account (ADB's share) to a newly created Plantation Fund[11].

2.5.3. Operation of RPCs

Table 12 presents major financial indicators for the past three years (2000-2002) based on annual reports of 20 RPCs covered by the project.

Table 12: Financial Indicators for 20 RPCs

Item	Return on Assets (current net Income/Total Assets)			Return on Equity (current net Income/Equity Capital)			Sales profit ratio (current net Income/Sales)		
	2000	2001	2002	2000	2001	2002	2000	2001	2002
Average of 20 RPCs	4.41%	1.44%	0.23%	15.73%	5.43%	0.85%	6.92%	2.32%	0.37%

Item	Equity Ratio (Equity Capital/Total Assets)			Sales per Person (Rs) (Sales/No. of Employees)			Current Ratio (Current Assets/Current Liabilities)		
	2000	2001	2002	2000	2001	2002	2000	2001	2002
Average of 20RPCs	28.04%	26.46%	27.47%	77,916	82,529	n.a.	104.08%	81.75%	73.98%

(Source) The project completion report of "Plantation Reform Project" by the Ministry of Plantation Industries (May 2003), annual reports of each RPC

The return on assets, return on equity and sales profit ratio, which are indicators of profitability, have all declined in the past three years, indicating that profitability has fallen

[9] As stated in "1.1 Background" of this report, at the time before privatization when state-owned public corporations existed, the government paid private management companies (MCs) to manage plantation businesses. (Ownership of the plantations belonged to the government and management rights to the management companies.) This system survived privatization, and each RPC pays an MC the management fee determined according to the performance of the RPC under the agreement with the MC. MCs are affiliates of RPCs' parent companies.

[10] The seven RPCs are Maturata PL (privatized in June 1997), Namunukula PL (June 1997), Malwatte Valley PL (July 1997), Kahawatte PL (July 1997), Elpitiya PL (July 1997), Talawakelle PL (January 1998), and Pussellawa PL (January 1998).

[11] The objective of the Plantation Fund is to provide funds in the form of investment to RPCs that have difficulty obtaining additional loans from financial institutions because they are financially weak and have come to the limit in terms of collateral and guarantees and capital increases from the parent companies. Details of this scheme are currently being discussed by ADB, Central Bank of Sri Lanka and the Ministry of Plantation Industries.

mainly due to higher costs such as personnel expenses and lower prices in the international market as explained in 2.3.2.

The equity ratio, an indicator of financial stability, has maintained the same level of 26-28%, while the current ratio, which measures short-term payment ability, has decreased due to the increase in short-term loans payable. In spite of the great demand for fund in the plantation sector, RPCs still have difficulty obtaining long-term loans from financial institutions because of the underdeveloped long-term financial market, unclear future of the plantation sector, and the weak financial base of each RPCs. Therefore, they raise funds by short-term loans guaranteed by their parent companies.

Sales per employee, which indicates operational efficiency, has risen slightly from 81,463 Rs in 2000 to 82,762 Rs in 2001. This increase is attributable not to the improvement of operational efficiency but to the decrease in RPC workers mainly at the plantations in suburban areas[12].

Based on these circumstances, each RPC is proceeding with efforts such as establishing direct sales channels that do not go through the Colombo Tea Auction, reinforcing marketing activities, developing high-value-added crops, diversifying crops, and promoting effective land use.

2.5.4. Ministry of Plantation Industries

The tasks of the Ministry of Plantation Industries as the agency in charge of setting and executing plantation policies have been shifting from the regulation and supervision of RPCs, which were its main tasks before the privatization of this sector, to promotion of privatization and deregulation, such as enhancing operational capability of privatized RPCs, establishing an environment in which RPCs can improve their financial status, and encouraging the industries to take the initiative in establishing voluntary rules and guidelines. As part of such measures, the ministry now seeks to ease regulations under the current Land Use Law (enacted in 1972), which presents obstacles to the diversification of crops and effective land use by RPCs, and to extend the land lease from the government to RPCs (from 50 years to 99 years).

3. Feedback

3.1 Lessons Learned

Nothing in particular

3.2 Recommendations

Nothing in particular

[12] Recently the plantation sector has been suffering from a labor shortage because of the heavy labor required.

Comparison of Original and Actual Scope

Item	Plan	Actual
1) Project Scope Part A: Profit Improvement Project (Loan) Based on the improvement plan made by each RPC, funds necessary for the implementation of the subprojects on the right are loaned through participating financial institutions (PFIs).	(a) Development plantations Supplementary planting/replanting in low productivity plantations of tea, rubber and coconut (including the maintenance of immature plantations after the supplementary planting/replanting) and diversification of crops (b) Modernization of processing facilities ・Construction/improvement of processing factories of tea, rubber and palm oil ・Construction of wastewater treatment plants annexed to rubber processing factories (c) Procurement of machinery, etc. ・Improvement of small-scale hydraulic power generating facilities ・Procurement of vehicles (automobiles, trucks, tractors, motor cycles) ・Procurement of plantation machinery and office machinery used for the management of plantations	As planned, except that supplementary planting/replanting in the plantations of coconut and oil palm were not implemented As planned, except that construction/improvement of processing factories of coconut and oil palm were not implemented As planned
Part B: Plantation Workers' Living Environment Project (Grant) Based on the development plan made by each RPC, part of expenses necessary for the implementation of the subprojects of forestation, improvement of lodgings in plantations, etc. is provided by the Ministry of Plantation Industries as a grant, and vocational training is given to redundant plantation workers ※The ODA loan covers Part A only. Part B is financed by a grant by ADB.	(a) Forestation ・Planting of trees for fuel and timber around water catchment areas within plantations (b) Improvement of plantation infrastructure ・Improvement of lodgings in plantations, lavatories, water supply facilities and farm roads (c) Reinforcement of organization ・Trainings to enhance technical skills and supervising capability of the staff or RPCs and the National Institute of Plantation Management (NIPM) ・Vocational training (in other industries) for redundant plantation workers (d) Assistance to the Project Implementation Unit (PIU) ・Employment of the staff, procurement of office machinery, vehicles, etc.	As planned
2) Implementation Schedule Part A Part B	 1996～2001 (6 years) 1996～2001 (6 years)	 1996～2001 (6 years) 1996～2002 (7 years)
3) Project Cost (Part A only) Total Cost Foreign Currency Local Currency ODA Loan Portion ADB Borrowing Country's Portion (PFI/RPC) Exchange Rate	※Basically all amounts are in the local currency 10,945 million yen — million yen — million yen 4,076 million yen 4,133 million yen 2,736 million yen 1 rupee ＝ 1.93 yen （1US$ ＝ 101.91yen ＝ 52.72Rs）	 11,562 million yen — million yen — million yen 4,076 million yen 4,595 million yen 2,891 million yen 1 rupee ＝ 1.75 yen （1US$ ＝ 141.57yen ＝ 80.86Rs）

Third Party Evaluator's Opinion on
Plantation Reform Project – Part A

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Relevance

The performance of Sri Lankan plantation sector is quite vulnerable to the price fluctuations in the international commodity markets, where the domestic industry has no influence. Therefore, the industry, quite often, finds it difficult to generate adequate surpluses to pay for regular investment needs. Postponement of essential investment leads to deterioration of the health of plantations, often demonstrated by more than optimum share of old trees, obsolete equipment and reducing yields. Under these circumstances, the project's targeted areas of attention, namely the plantation development, modernisation of processing facilities and procurement of machinery, can be considered very relevant. The project has spent 81 million US Dollars for this purpose and the fact that there has been a significant demand for secondary loans extended to plantation companies by participating financial institutions indicates the relevance of this project from the angle of the beneficiary plantations.

The project has explicitly excluded the non-privatised plantations, though the needs for financial assistance provided through the project were equally relevant to those non-privatised plantations. This choice has been in conformity with the stated objectives of the project, namely "supporting plantation reforms". However, it also indicates that the underlying policy of "supporting privatisation" has been considered in this project "more relevant" than the "circumstances faced by the beneficiary plantations".

Effectiveness

The effectiveness of this project in view of achieving its stated objectives can be viewed from two different angles, namely (a) the effectiveness in achieving the set physical targets, and (b) the comparative effectiveness vis-à-vis achievements recorded by non-beneficiary entities. The post evaluation report has brought evidence in support of the project's effectiveness in achieving its set targets[1] . In the area of re-planting and new-planting, for example, the achievement has been considerable, and the project's "effectiveness" in this area could be judged significant particularly if no such re-planting and new-planting investment could be made by the privatised plantation companies without this project.

However, the report does not appear to have sufficiently focused on the project's comparative effectiveness. It would have been much more enlightening in relation to "effectiveness of the project" had the report gone into comparative analysis of replanting and new-planting effort, growth in extent and economics, and productivity indices of beneficiaries of the project as against that of the non-beneficiary plantations. Information that could be found in secondary sources could have enabled such an exercise. As per our estimations, the non-beneficiary plantations have faired better in certain domains[2], while the beneficiaries of the project have performed better in some others domains[3]. However, the "causality" of such performance needs to be identified in order to judge the "effectiveness" of the project, which calls for a deeper comparative analysis of performance of the beneficiary and the non-beneficiary plantations, before and after the project.

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[1] Exceeding the physical targets could indicate the project's "effectiveness" in producing outputs

[2] Loss of extent of Tea (1996-2002) : 8% (privatised); 7% (non-privatised)
Average Cost of Production of Tea (2002) : 137 Rs/Kg (privatised); 121 Rs/Kg (non-privatised)
Labour intensity in Tea (2002): 1.11 labourers/ha (privatised); 0.72 labourers/ha (non-privatised)
[Source: Statistical Pocket Book-2003, Ministry of Plantation Industries, Colombo, Sri Lanka]

[3] The privatised plantations have recorded greater financial margins and yields per hectare compared to non-privatised plantations by 2002. However, the privatised plantations had greater margins and yields per hectare than non-privatised plantations even before 1996, i.e. even before the project.

Efficiency

The “efficiency” of a project in achieving its set objectives can be evaluated only if detailed information pertaining to the inputs spent and the outputs generated by the project are made available. For example, had the investment break down on re-planting 4834 hectares of Tea and 9992 hectares of Rubber been provided in the evaluation report, the average amount spent to replant a hectare of each crop could have been estimated, which could have been used as a parameter in judging the “efficiency” of the project in generating outputs. Achieving more in terms of physical output than what was planned at the development phase of the project would not necessarily mean that the project has been “efficient” in this regard.

Report on Part-B of this project is not evaluated as it did not contain even the basic information pertaining to capital inputs.