

THE IMPACT OF RUBBER PLANTATION INSURANCE SCHEME IN TRADITIONAL RUBBER GROWING TRACTS OF KERALA

BY

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DISSERTATION

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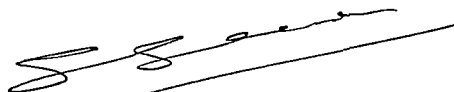
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DECLARATION

I hereby declare that this dissertation entitled "THE IMPACT OF RUBBER PLANTATION INSURANCE SCHEME IN TRADITIONAL RUBBER GROWING TRACTS OF KERALA" is a bonafide record of research work done by me and that this dissertation has not formed the basis for award to me, of any degree, diploma, associateship, fellowship or other similar title of any other University or Society.

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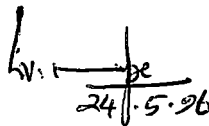
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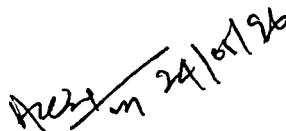
We, undersigned members of the Advisory Committee of Sri.S.S.Mohamed Abdul Kader, a candidate for the Post Graduate Diploma in Natural Rubber production, certify that this dissertation entitled "THE IMPACT OF RUBBER PLANTATION INSURANCE SCHEME IN TRADITIONAL RUBBER GROWING TRACTS OF KERALA" is a record of research work done independently by Sri.S.S.Mohamed Abdul Kader under our guidance and that it has not previously formed the basis for award of any degree, diploma, associateship or fellowship to him.

We also agree that this dissertation may be submitted by him in partial fulfilment of the requirement of the diploma.

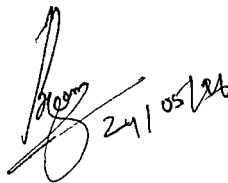
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Introduction

INTRODUCTION

Agricultural production is inherently a risky business and the major underlying factors contributing to its uncertainties are natural calamities, hazards like fire, accidents, riots, seasonal variations, land slide, wind, hail storm, etc. Insurance is considered to be the simplest form of safe guard against such risks which tend to substitute the possibility of large but unknown loss by a small known cost, ie., premium (Kahlan and Singh, 1980).

The basic purpose of crop insurance is to ensure that the money and labour expended by a farmer on the production of his crops are not entirely wiped out by natural hazards beyond his control. The provision of at least a minimal income at times of crop failure in return for regular premium payments enables a farmer to obtain necessary inputs and continue cultivation uninterrupted by crop failure.

Insurance had been applied in rudimentary form in agricultural fields in many countries like U.S.A., Canada and Japan for a long time, but the system of Insurance, as it is known today, has been used to a much lesser extent in agriculture than in commercial and industrial enterprises. Agricultural crop insurance was earlier limited to mainly against hail damage, fire caused by lightening, wind and storm.

Rubber has been given the protection of insurance in most of the countries when it is raised systematically as a plantation crop in estates. Thus insurance has been available to rubber plantations in Malaysia, Indonesia and

Sri Lanka since World War II. In India, it was the Madras Motor and General Insurance Company that had initiated a scheme for insurance coverage to the rubber plantations.

M/s.National Insurance Co. Ltd. is implementing a plantation insurance scheme for rubber in India, through the Rubber Board, from 1988 onwards (Rubber Board, 1988). The perils covered under the insurance scheme are fire, wind, hurricane, flood, land slide, hail storm, rock slide and subsidence. The scheme originally covered only rubber plantations raised during 1988 under Board's Rubber Plantation Development Scheme. From June 1989, all immature plantations under Rubber Plantation Development Scheme as well as mature plantations up to 22 years of age are also brought under coverage of the scheme.

The insurance scheme is being operated through the Rubber Board. The Board has taken master policies on behalf of rubber growers and issues individual certificates to participating growers. Claims will be investigated by Board's Officials and the eligible compensation collected from the company are passed on to affected growers.

In India, the State of Kerala alone contribute for 85 per cent of the area and 90 per cent of the production of rubber. So, the traditional rubber growing tracts of Kerala had been selected for the study. Area under rubber in the traditional rubber growing tracts of Kerala, in comparison with all India figures is given in Appendix-I and II. The break up details of immature and mature areas is given in Appendix-III.

Albeit, the insurance scheme has been operational in India since 1988, data regarding the impact of the scheme among growers are meagre. So this study was carried out with the objective of ascertaining the growers awareness and reaction to the scheme, the benefits derived by the planting community since the implementation of the scheme and to have a comparative evaluation of the merits and demerits of the scheme.

Review of Literature

REVIEW OF LITERATURE

Studies on insurance in rubber plantations in India and abroad are very limited. Rubber Plantation Insurance Scheme in India is a recently introduced programme and hence studies on the subject are also a few. In this section a review of available literature on the impact of rubber plantation insurance scheme is attempted.

It is evident that the rubber plantations had been given the protection of insurance against the risks of fire and wind from the early years of the century, in many of the major rubber growing countries in the world (Gaslee, 1967).

It had been reported by Skees (1993) that the United States had been providing farm-level insurance to crop producers through the Federal Crop Insurance Corporation since 1939.

In India, the earlier records available show that the Government had offered relief for famine to farmers in 1879. The records say that some Corporative Organisation also provided relief in the event of crop failure (Shah and Maharaja, 1981). They had also reported that the erstwhile princely State of Madhya Pradesh had implemented crop insurance scheme as early as 1943.

Crop Insurance in the country was reported to be under consideration of Government of India since independence. Dandekar (1981) reported that a systematic crop insurance scheme was in vogue in Gujarat, Maharashtra, Karnataka, Tamil Nadu and West Bengal in 1970.

2.1 Rubber Plantation Insurance Scheme

Rubber Plantations in India were reported to be covered by an insurance scheme floated by M/s.Madras Motor and General Insurance Company in 1970 (Dandekar, 1981). The scheme did not get popularity due to the high premium rates and also that the compensation was only to the extent of the cost of replantation, deducting the salvage value.

It had been decided by the Rubber Board, at the meeting of its Board in 1988 to establish a Mutual Benefit Trust for the rubber planters. As per this, the farmers were entitled for a compensation upto Rs.27,000/- per hectare in case of losses due to natural calamities. This would protect trees till 10th year of its growth. The planters, in turn, had to pay a premium of Rs.500/- per hectare of plantation. Provision was also there for compensation to the extent of Rs.7,000/- per hectare for the loss of prospective yield. But this scheme did not take up due to implementation of Rubber Plantation Insurance Scheme later.

Ramakrishnan (1991) undertook a study and evaluated the progress of the new rubber plantation insurance scheme introduced in India and reported that within two years of operation the claim ratio reached around 20 per cent of the premium, whereas in normal case it should only be around 15 per cent.

2.2 Board's role in the ongoing scheme

It had been decided by the Rubber Board to take up proposals to implement a comprehensive insurance scheme for the rubber plantations with better and attractive terms and conditions through Nationalised Insurance Companies in 1988.

Thus, in consultation with M/s.National Insurance Company, a comprehensive insurance scheme was drawn up to cover the Board's subsidised plantations raised since 1988 under the coverage of a Master Policy in favour of the Rubber Board. The rate of premium payable in advance was Rs.500/- per hectare for a period of eight years from the date of planting.

Another scheme for insuring mature rubber in the age group of 8 to 22 years was also floated with effect from 1-6-1989. As per this scheme, the insurance company would issue long term policies to the identified growers for three years to obtain reduction in per year incidence of premium. The premium payable in advance was Rs.473/- per hectare for plantations between age group of 8 years to 22 years from the date of planting in the field. In the case of large growers, insurance of mature rubber plantation was also done on an annual basis at a premium of Rs.210/- per hectare instead of Rs.473/- per hectare for three years approved under the Scheme.

2.3 Perils covered

As per the brochure on Insurance of Rubber Plantations (National Insurance Company, 1988) the following are the perils covered by the scheme:

- 1) Fire - including fire resulting from explosion, bush fire and forest fire
- 2) Lightning
- 3) Wind, storm, tempest, hurricane, hail storm and cyclone
- 4) Flood
- 5) Subsidence and land slide including rock slide damage

2.4 Risks not covered

As per Rubber Board (1989a) the insurance will not cover other perils which inter alia include:

- 1) loss by theft during or after the perils covered under the policy,
- 2) intentional felling or destruction,
- 3) loss/damage contributed by nuclear weapons/materials or radio activities,
- 4) earthquake, volcanic eruptions and soil erosion of any kind,
- 5) war or war like operations,
- 6) meeting, riot, civil commotion, malicious acts of any kind by anybody, military acts, insurrection, rebellion, revolution, events consequent to the imposition of martial law, terrorism etc.,
- 7) theft, disease, drought, scorching heat other than accidental fire, wild animals, impact of any kind of insects and pests, wrong and improper application of fertilizers, insecticides and like, improper maintenance and upkeep.

2.5 Other conditions

As per the Memorandum on Insurance of Rubber Plantations issued by Rubber Board in 1989 (Rubber Board, 1989b), the insurance once brought in force remains attached to the plants/trees even in the case of transfer of ownership by will or operation of law.

2.6 Commencement of risk

The risk coverage to plantations which are less than one year shall take effect from a date commencing one year after the respective date of planting rubber

plants in such plantations (Rubber Board, 1989c). And for plantations which are over one year of age in the field, insurance cover shall take effect from a date commencing 30 days after issuance of certificate of insurance.

2.7 Maximum liability

According to the Rubber Board (1989d) the company's liability for the period of insurance in respect of any plantation, in the case of immature area shall not exceed Rs.45,000/- per hectare and for mature area Rs.60,000/- per hectare.

2.8 Basis of compensation

The basis of compensation payable to the insured by the company in respect of each insured rubber plant/tree damaged by any of the perils stated elsewhere and thereby reduced unless for the purpose of producing rubber latex shall be as per the following chart.

Immature

Age of plant/tree	Maximum compensation per plant/tree destroyed or damaged and require replacement
One to two years old	Rs. 41/-
Two to three ,,	Rs. 74/-
Three to four ,,	Rs.100/-
Four to five ,,	Rs.123/-
Five to six ,,	Rs.132/-
Six to seven ,,	Rs.144/-
Seven to eight ,,	Rs.166/-

Mature

Age of plant/tree	Maximum compensation per plant/tree destroyed or damaged and require replacement
Eight to ten years old	Rs.200/-
Eleven to thirteen years old	Rs.210/-
Fourteen to sixteen ,,	Rs.225/-
Seventeen to twenty two ,,	Rs.250/-

(Age of plants/trees to be calculated from the date of planting of the rubber plant in the plantations covered)

2.9 Franchise/excess

As per Rubber Board (1994), it is deemed that no claim shall be admissible unless the assessed loss amount exceeds Rs.250/- per claim. Once the loss amount exceeds Rs.250/- per claim, the entire loss will be payable. For the purpose of calculating franchise, losses caused by same peril in a period of three months from the date of first occurrence in the insured plantation, shall be considered as a single loss (this clause is a later introduction to minimise the number of claims).

For mature trees, the insurer shall bear 10 per cent of the assessed loss or Rs.1,000/- whichever is higher in respect of each and every claim. For the purpose of calculating excess, all losses caused by the same peril in a period of three months from the date of first occurrence in the insured plantation, shall be considered as a single loss.

2.10 Stand of rubber plants/trees per hectare

As per the scheme, the standard stand of rubber plants/trees shall be 400 per hectare. If the number of trees per hectare is more than 400 at the time of loss or damage, the company's liability under the policy shall be proportionally reduced.

2.11 Mode of operation

As per the scheme, the mode of operation is as follows:

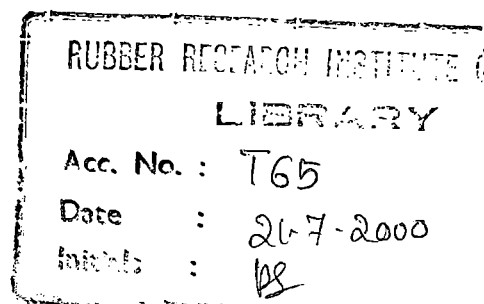
- a) On payment of prescribed premium by the Rubber Board, the company shall issue master policy and provide serially numbered proposal cum certificate of insurance forms to the Board.
- b) The Rubber Board shall declare to the company from time to time the full details of plantations to be covered under the master policy in the serially numbered certificate of insurance provided by the company.
- c) All columns in the certificate of insurance must be duly filled and signed by the planter and development officer of the Board.
- d) On receipt of the certificate of insurance in duplicate from the Board giving the aforesaid details, the company shall return one copy thereof duly signed by their authorised signatory in affirmation of cover under this policy for the ^{respective} ~~relative~~ plantations.
- e) The officials of the Board should inspect such plantations which are not subsidised by the Board prior to the issuance of certificate.

2.12 Recent modifications and amendments

As per the earlier rules, Rubber Plantation Insurance was not obligatory on the part of growers who availed subsidy under Rubber Board's Plantation Development Scheme I, II and III. Since 1993 planting season, rubber plantations covered under plantation development scheme phase IV has been made compulsory under World Bank Aided Rubber Project. Consequent to this, certain amendments in the procedure adopted in insuring the plantations were introduced (Rubber Board, 1994).

They are:

- a) a franchise clause of Rs.250/- introduced for immature areas while maintaining the normal excess of 10 per cent. Hence, the insurer will entertain only claims above Rs.250/- with actual 10 per cent deduction on the total compensation,
- b) claims occurred during monsoon from June to August every year would be treated as single loss for the purpose of applying policy excess in respect of marginal as well as small growers,
- c) on an experimental basis, inclusion of drought in the scope of insurance cover for one or two years,
- d) hitherto insurance cover throughout the territorial area of Government of India was covered by M/s.National Insurance Company. From 1st of April 1994, it was decided to allot the service areas of Kothamangalam and Ernakulam Regional Offices to M/s. New India Assurance Company,



- e) compensations were paid to eligible rubber growers through Board's Head Office has since been entrusted with the concerned Regional offices for speedy disbursement,
- f) to maintain uniformity in getting field inspection reports, a format had been introduced,
- g) the status of insured immature area is known to the Board since periodic field inspections are carried out in these units under RPD scheme. But in the case of mature areas, the status of rubber plantation at the time insuring is not known. Hence, before considering of insurance for mature areas, it has been decided to carry out a field inspection and assess the status. Also decided not to insure mature areas lacking in regular stand, clear title, or in dispute.

2.13 Studies on damages

Haridasan and Unni (1970) studied the damages caused to rubber plantations in India due to natural calamities. Their study revealed that 40 per cent of the estates studied had fire havocs. They also reported that damages due to wind was on the increase and flood was not a serious threat to the rubber plantation industry. However, they had found that out of the 156 holdings studied, seven had been affected by flood and one holding had experienced land slide, too.

It had been reported that the destruction of trees by storm is one of the most frustrating forms of loss. The damage is often beyond repair and occurs at a stage in the life of the plant when replacement is uneconomic (RRIM, 1961).

Studies of Jeevaratnam (1962) revealed that a greater proportion of trees were uprooted compared to those damaged by trunk snap or branch breakage. As is reported above, the nature and intensity of damages caused by wind depends on the force extended on the trees. The overall force sustained by the tree will be proportional to its size and the square of the velocity of wind. The force exerted by wind on a tree will be transmitted through its trunk and branches. Hence, it had been observed that trees with dense canopies will exert greater leverage on the trunk than squat trees (Mathew and George, 1967).

Ramakrishnan (1991) studied the damages caused to rubber plantations in Kunnathunadu taluk of Ernakulam district and revealed that 50 per cent of the holdings suffered losses due to wind.

Materials and Methods

MATERIALS AND METHODS

The present study was undertaken during 1995, to know the impact of the rubber plantation insurance scheme, in the traditional rubber growing tracts of Kerala. The data required for the study were collected from the Rubber Production Department of Rubber Board, Kottayam, Divisional Office of M/s.National Insurance Company Limited, Kottayam and the Rubber Board's Regional Office, Thrissur.

Details regarding the master policy taken by Rubber Board, the premium remitted and area covered under the scheme were collected from the Board's office. Details of claims raised and compensation paid were gathered from the records of M/s.National Insurance Company Ltd., Kottayam.

For the field study, 50 units in Thrissur district were selected. Thrissur district was selected as it is located somewhere in the middle of the traditional rubber growing tracts of Kerala. The units were selected at random covering the entire jurisdictional area of Rubber Board Regional Office, Thrissur.

Field data were collected from growers separately for mature and immature areas, as the insurance scheme is slightly different ^{for} ~~from~~ the two categories regarding rate of premium payable, period of insurance coverage and rate of compensation. To have a comparative study, the units were categorised as follows and the data collected.

Category of units insured under the scheme	No. of immature holdings	No. of mature holdings
a) No claims raised so far	5	5
b) Claims preferred and compensation received from the company	5	5
c) Claims preferred, but rejected by the insurance company	5	5
d) Covered by Board's planting incentive scheme (plantations raised since 1993)	20	Nil
Total	35	15

The selected holdings were visited and the growers interviewed using a pre-tested interview schedule. The questionnaire used for the purpose is reproduced as Appendix-IV.

Details regarding the nature and extent of damages in the holdings, compensation received, reasons for non-receipt of compensation etc. were collected and recorded. Growers awareness and response to the scheme were also assessed and recorded. Details like year of planting, extent of holding, stand per hectare and maintenance status of the holdings surveyed were also ascertained and recorded.

In addition, the officers of the Rubber Board at Regional Office, Thrissur and Officials of M/s.National Insurance Company Ltd. were interviewed to find out the bottle necks in the implementation of the scheme. Their view had been sought to assess the progress and problems in the implementation of the scheme.

The data collected were critically analysed and conclusions drawn.

Results and Discussion

RESULTS AND DISCUSSION

The results obtained through the study are discussed here under to arrive at valid conclusions.

4.1 Details of master policy taken and area brought under insurance cover

4.1.1 Details of master policy taken

As per the insurance scheme floated by M/s.National Insurance Company Limited in collaboration with the Rubber Board, Rubber Board purchased master policies paying a premium in lumpsum. M/s.New India Assurance Company was also brought into the scheme subsequently. The details of the master policy purchased by the Rubber Board and premium remitted as on 31-12-1993 and 31-3-1995 are presented in Table 1 and Fig.1. The area covered under the master policy is depicted in Fig.2. The Rubber Board has remitted Rs.1,41,69,143/- as premium and purchased master policies to cover an extent of 22709 ha of immature and 6900 ha of mature areas as on 31-3-1995.

4.1.2 Area brought under insurance cover

Extent of rubber brought under the scheme as on 31-3-1995 is represented in Table 2. It could be seen that an extent of 29197 ha of rubber, comprising 22583 ha of immature and 6614 ha of mature area only were brought under insurance cover against a total premium remittance by Rubber Board for 29609 ha with the insurance companies. It is observed that, only seven per cent of the total area under rubber is brought under insurance cover till 1994. In the

Table 1. Details of master policy taken by Rubber Board

A. From M/s.National Insurance Company

Details	As on 31-12-1993		As on 31-3-1995	
	Extent (ha)	Premium remitted (Rs.)	Extent (ha)	Premium remitted (Rs.)
Immature	11808.79	5300000	22208.79	10575000
Mature	4450.00	2104850	6800.00	3271978
Total	16258.79	7404850	29008.79	13846978

B. From M/s.New India Assurance Company

Immature	Nil	Nil	500.00	262500
Mature	Nil	Nil	100.00	49665
Total	Nil	Nil	600.00	312165

C. Grand Total

Immature	11808.79	5300000	22708.79	10837500
Mature	4450.00	2104850	6900.00	3321643
Total	16258.79	7404850	29608.79	14169143

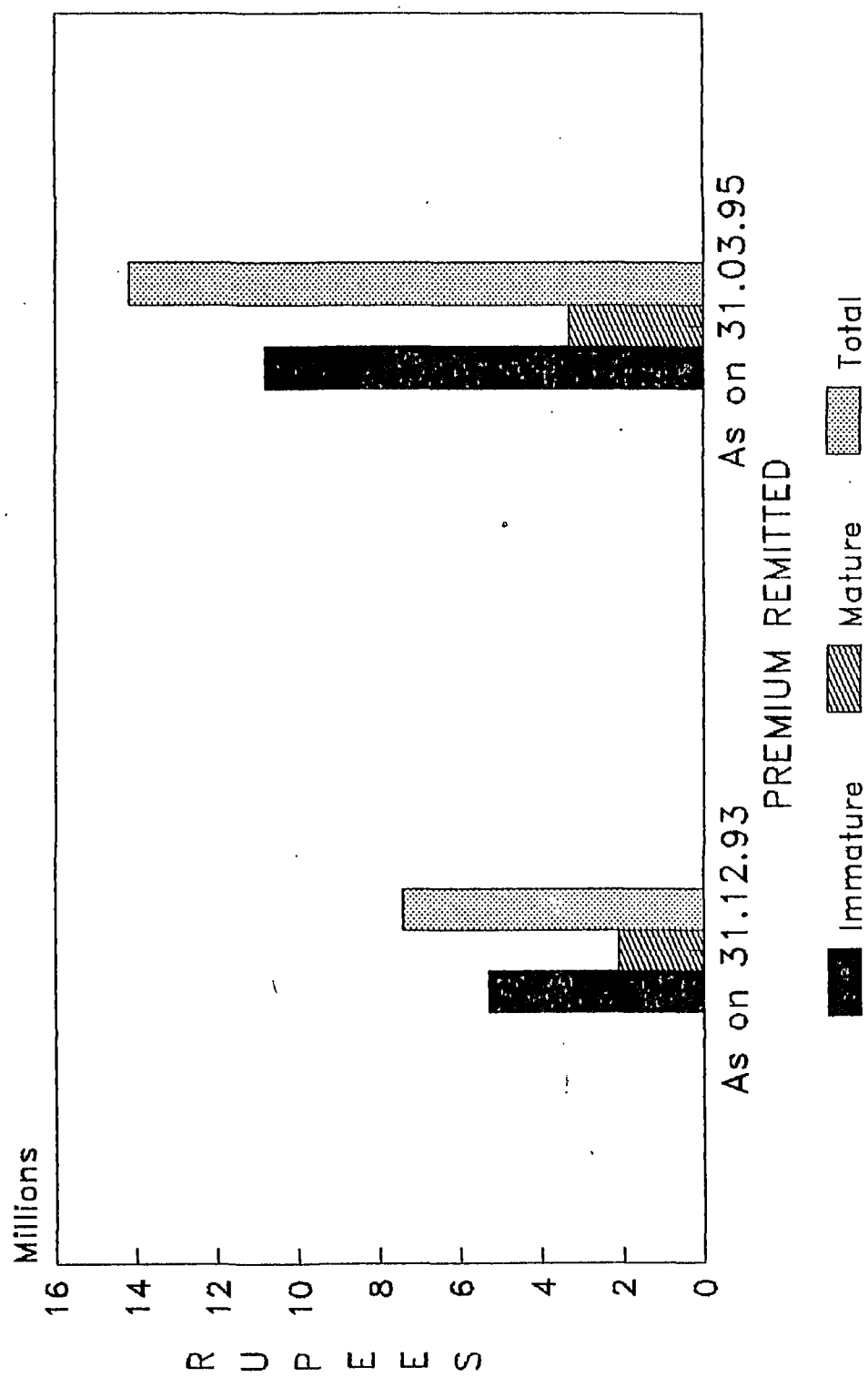


Fig.1. Remittance of premium by the Rubber Board

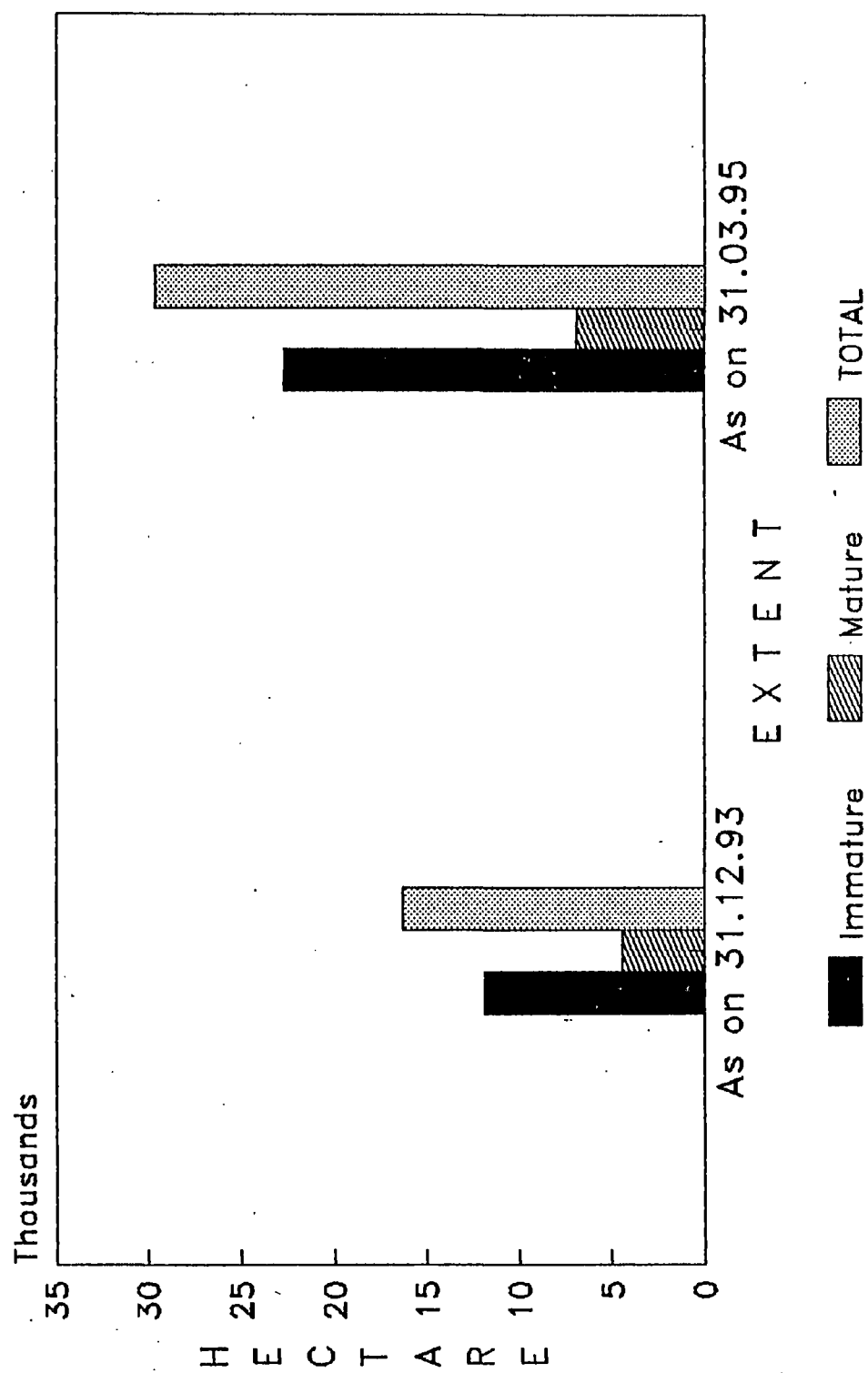


Fig.2. Details of master policy taken by the Rubber Board

Table 2. Comparative statement of total rubber planted area Vs. insured area
(as on 31-3-1995)

Details	Total planted area (ha)	Area insured by M/s. National Insurance Company extent (ha)	Area insured by M/s.New India Insurance Company extend (ha)	Percentage of insured area Vs. planted	Total insured area (ha)
Immature	104654	22284.11	298.31	21.57	22582.42
Mature	332446	6608.53	5.68	1.99	6614.21
Total	437100	28892.64	303.99	6.68	29196.63

immature area, there was a coverage of 22 per cent while it was only two per cent in the mature area (Table 2).

From discussions with growers and officials of the Rubber Board and Insurance company, it could be understood that the reasons for the low coverage of the scheme was

- 1) unaffordable premium rate due to poor financial status,
- 2) optimism of the growers that extensive damage due to natural calamities may not occur,
- 3) unmindful to marginal losses,
- 4) general impression that it takes too much of formalities to take the policy and to get the compensation on the event of loss,
- 5) lack of 'no claim bonus' and unattractive franchise limit.

4.2 Details of compensation paid

During the period 1988 to 1995, the National Insurance Company had paid compensation to 1353 growers, for loss sustained in 897 immature units and 456 mature units (Table 3). The total compensation paid comes to Rs.38,36,683 which represents Rs.26,42,128 for immature area and Rs.11,94,555 for mature area.

On a comparison between the premium amount collected and compensation paid, it could be seen that the insurance company had paid as compensation 36 per cent of the premium amount collected against the insurance of mature areas. With respect to immature areas, the compensation paid was only 27 per cent, out of the premium received (Table 4). Thus, the insurance company was left with a surplus of Rs.1,03,22,460/- which comes to 73 per cent of the total premium

Table 3. Details of compensation paid (as on 31-3-1995) by the Insurance Company

Year	Immature		Mature		Total	
	Number of growers benefited	Amount paid (Rs.)	Number of growers benefited	Amount paid (Rs.)	Number of growers benefited	Amount paid (Rs.)
1988-89	Nil	Nil	Nil	Nil	Nil	Nil
1989-90	7	3799	6	26283	13	30082
1990-91	55	341613	23	70722	78	412335
1991-92	207	342312	93	152839	300	495151
1992-93	175	1061504	77	156141	252	1217645
1993-94	262	479400	142	418753	404	898153
1994-95	191	413500	115	369817	306	783317
Total	897	2642128	456	1194555	1353	3836683

Table 4. Premium collected vs. compensation paid by the Insurance company

Category	Premium collected (Rs.)	Compensation paid (Rs.)	Percentage
Mature area	33,21,643	11,94,555	35.96
Immature area	1,08,37,500	26,42,128	24.38
Total	1,41,54,143	38,36,683	27.09

collected. This was excluding the possible interest accrued on the premium collected periodically.

According to Hazell (1992) for a scheme to be financially viable without government support, the insurer needs to keep the average value of its annual outgoings indemnity plus administrative costs, below the average annual value of the premiums it collects. This is achieved by keeping solvency ratio below one over a period of time. The solvency ratio was calculated by Hazell using the formula

$$\text{Solvency ratio} = \frac{(I + A)}{P} \quad \text{where}$$

I = Indemnities paid

A = Administrative cost

P = Premium ^{received} ~~paid~~

The administrative cost of the insurance company for the Rubber Insurance Scheme can be assumed to be only around 10 per cent of the total premium received since the administration of the scheme is mainly entrusted with the Board. It can be seen that the scheme is highly solvent or profitable from the angle of the insurance company.

4.3 Damages and perils

From the Divisional Office of the National Insurance Company, Kottayam, verification of 415 claims, wherein compensation had been paid by the company during the period 1989 to 1993, had been made and damages/perils to mature areas and immature areas were separately analysed.

4.3.1 Damages to mature areas

Out of the 132 cases verified, in 98 per cent of the claims the damage to the trees was due to wind/storm, in one per cent, the damage was caused by flood and in one per cent by fire (Table 5).

4.3.2 Damages to immature areas

Out of the 283 claims verified with respect to immature plantations, the losses due to wind/storm was found to be 96 per cent and that due to fire two per cent. The losses due to flood, lightning and drought were found to be only below one per cent each (Table 6).

Joseph *et al.* (1994) had reported 66 per cent of damages due to wind and 24 per cent of damages due to fire, based on data pertaining to the first five year period of operation of the scheme (1988-89 to 1992-93). But these findings are not in conformity with the earlier findings of Haridasan and Unni (1970). They had reported fire incidence in 40 per cent of the holdings studied and opined that damages due to wind was on an increase and flood was not a threat to rubber plantations.

4.4 Details gathered from field survey

Out of the 50 units surveyed in Thrissur district, 30 units were insured by growers on their own accord and 20 units under the Rubber Boards Compulsory Scheme. The details regarding the holdings selected for the study are given in Appendix-V.

Table 5. Damages to mature areas (1989 to 1993)

Year in which damage occurred	Number of cases affect by							Total
	Strom/ Wind	Land/ slide	Flood	Lightning	Fire	Drought	Others	
1989	6	0	0	0	0	0	0	6
1990	13	0	1	0	0	0	0	14
1991	72	0	0	0	1	0	0	73
1992	32	0	0	0	0	0	0	32
1993	7	0	0	0	0	0	0	7
Total	130	0	1	0	1	0	0	132

Table 6. Damages to immature areas (1989 to 1993)

Year in which damage occurred	Number of cases affected by							Total
	Storm/ wind	Land/ slide	Flood	Lightning	Fire	Drought	Others	
1989	19	0	0	0	0	0	0	19
1990	55	0	0	1	1	0	0	57
1991	151	0	2	1	4	0	1	159
1992	39	0	0	0	0	0	0	39
1993	9	0	0	0	0	0	0	9
Total	273	0	2	2	5	0	1	283

4.4.1 Planting density

The stand per hectare of trees was found to be different in all the holdings as varied spacings for planting had been adopted. In 60 per cent of the holdings, the stand was more than 500 per hectare, in 36 per cent it was between 400 and 500 and in four per cent of the holdings it was below 400 (Table 7).

The standard planting density fixed in the scheme is 400 per hectare. The higher stand found in majority of the holdings is detrimental to the interest of the grower with regard to the compensation amount, as proportionate reduction is envisaged in the scheme in such cases.

4.4.2 Maintenance of the holdings

Majority of the holdings visited were scientifically maintained as per the recommendations of the Rubber Board. Based on the visual observation, the maintenance of the holdings were rated as excellent, good, average and poor. In six per cent of the holdings, the maintenance was found to be excellent, in 66 per cent it was good, and in 24 per cent it was only average. Four per cent of the holdings had been damaged extensively by natural calamities and thereby they had been kept neglected (Table 8).

4.4.3 Holdings affected by damage and its cause

Out of the 50 holdings visited, 22 (44%) had suffered damages with two holdings more or less completely damaged. In 14 holdings (28%) the damage was due to wind/storm, six holdings (12%) had been affected by fire and two holdings

Table 7. Planting density in holdings surveyed in Thrissur District

Stand/hectare	No. of holdings	Percentage of holdings
Below 400	2	4
400-500	18	36
Above 500	30	60

Table 8. Maintenance of holdings brought under 'Rubber Plantation Insurance Scheme' in Thrissur District

Description	No. of holdings	Percentage of holdings
Excellent	3	6
Good	33	66
Average	12	24
Poor	2	4

(4%) had been affected by drought. Twenty eight holdings (56%) were not affected by any calamity (Table 9).

4.4.4 Awareness among growers

Rubber Plantation Insurance Scheme being a recently introduced scheme, awareness among the growers about the same was not widely spread. Fifty six per cent of the growers who got their areas insured did the same through the motivation of the Rubber Board Officials, 25 per cent gained the motivation through different media like Rubber Magazine, Radio, News paper etc., two per cent gained the knowledge through friends/acquaintances and 16 per cent insured their holdings under Rubber Board's compulsory scheme (Table 10).

4.4.5 Response of the growers

Out of the 22 claims preferred by the growers for compensation, eight (36%) had been settled favourably, two claims (9%) had been under process, 12 claims (55%) had been rejected. The claims which had been turned down had been for small damages only, which were within the franchise limit and hence not eligible for compensation (Table 11).

Generally, the scheme had received wide acclaim among growers involved. They were satisfied with the performance, as the Rubber Board, the implementing agency, did not allow for any procedural lapses and the claims were investigated and reported upon at the earliest. But a general complaint raised was against the franchise limit, especially in the case of mature trees. In Kerala conditions, it is common that few trees are uprooted/snapped occasionally due to wind and or heavy rains. Farmers could not get compensation for such losses as the losses

Table 9. Reasons for damages in the holdings brought under 'Rubber Plantation Insurance Scheme' in Thrissur District

Nature of calamity	No. of holdings affected	Percentage of holdings
Wind/storm	14	28
Fire	6	12
Drought	2	4
Not affected	28	56

Table 10. Nature of awareness about 'Rubber Plantation Insurance Scheme' among the growers

Nature of motivation	No. of growers in the category	Percentage
Through Rubber Board Officials	28	56
Through audio visual media	13	26
Through compulsion	8	16
Through friends	1	2

Table 11. Settlement of claims by the Insurance company

Category	No. of claims	Percentage
Claims settled favourably	8	36
Claims under process	2	9
Claims denied	12	55
Total	22	100

are within the franchise limit and the vacancies of trees caused by the loss could not be replaced also due to the canopy of adjoining trees. This limitation in the franchise clause had to be some how over come, they opined.

4.5 Suggestions from the Rubber Board and Insurance Company Officials

On discussion with the Rubber Board Officials (Development Officer, Asst. Development Officers and Field Officers) at Regional Office, Thrissur, they were of the opinion that the franchise limit in respect of immature plantations in the age group of third to seventh year and mature plantations had to be dispensed with as the growers are not in a position to supply vacancies in such cases due to shade problem from adjoining trees. They also opined that making provision in the scheme for payment of no claim bonus, compensation for loss of prospective yield due to damage also, would attract more small/marginal growers in both fold of the scheme with resultant popularity/coverage of larger extent of plantations. As regard to stand per hectare of plants, the scheme envisages a stand of 400 per ha only and proportionate reduction is made in the compensation amount when the stand is higher. The Rubber Board allows a stand upto 500 plants per hectare and generally the stand is around 450, atleast, in the initial years. So the general opinion was that atleast in the immature phase, provision may be provided in the scheme for a higher stand. On discussing the matter with the National Insurance Company, it was stated that the company is following the guidance given by the Rubber Board and it is up to the Board to suggest the change.

According to the insurance company the continuance of the scheme is dependent on wider coverage of the scheme, as without a proportionate increase in

the insured area, the viability of the scheme may get jeopardised as the risk coverage is for a longer period, ie., up to eighth year in the case of immature plants and for three years in the case of mature plants. Moreover, more risk prone areas are getting insured while less risky areas remained outside the scheme. But conditions had changed since Rubber Board has introduced compulsory insurance for the areas planted under Board's aid scheme.

Summary and Conclusion

SUMMARY AND CONCLUSIONS

The study on the 'Impact of rubber plantation insurance scheme in the traditional rubber growing tracts of Kerala' has revealed that the scheme, being a recently introduced subject, has not gained much popularity. The ongoing scheme had covered only seven per cent of the total rubber area in the State, for the period upto 1994. Out of this, the percentage share of immature area is 22 and mature area a meagre two per cent.

It was also observed that the scheme is highly solvent and profitable from the angle of the insurance company, in that the company had paid as compensation only 27 per cent of total premium amount collected. Thus the insurance company was left with a surplus of 73 per cent of the total premium collected, excluding the possible interest accrued on the same periodically.

It was found that in mature as well as immature plantations, the major causes of damage was wind/storm. Damages due to agencies like fire, flood, lightning and drought were very minimal.

The limitations of the scheme were found to be less coverage, the arbitrary franchise limit, lack of provision for payment of compensation for loss of prospective yield and lack of no claim bonus. Considering the solvency there is scope for further reduction of premium, including perils like drought permanently, considering for yield loss due to diseases etc. One of the reasons for low insuring in mature area is because of lack of any promotional effort by insurance companies.

The field survey was extended to 50 insured units only in the Thrissur district out of 1398 units insured. Moreover, the rubber holdings insured in traditional rubber growing tracts of Kerala are spread over to 30235 units in 14 districts. To have an indepth analysis on the impact of the scheme, further studies covering the entire tract is necessary.

Highlights of the study

- The scheme, even after seven years of its launching, had benefitted only a small percentage of growers in the traditional rubber growing tracts of Kerala.
- More awareness campaign among small and marginal farmers, especially who own mature uninsured rubber areas, will be of much use.
- Insurance cover provided for different perils other than wind/storm, fire, lightning and land slide reflects academic coverage only.
- The insurer is financially benefitted by the scheme as the situation stands now.
- The stand per hectare now in vogue requires upward revision atleast in the immature phase.
- Considering the solvency there is scope for further reduction of premium.

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Appendices

APPENDIX-I
Area under rubber in traditional rubber growing tracts of Kerala
during 1988-89 to 1993-94 (Area in hectare)

Sl.No.	Name of District	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94
1	Thiruvananthapuram	17690	18174	22156	24666	24939	25279
2	Kollam	39016	39528	32438	33178	33540	34067
3	Pathanamthitta	30538	31410	42872	43854	44930	45857
4	Alapuzha	3951	4350	3350	3420	3470	3517
5	Kottayam	89853	92330	103888	104703	106200	107647
6	Idukki	32139	32658	35545	35972	36239	36628
7	Ernakulam	41199	42289	51163	52176	53293	54270
8	Thrissur	11233	11708	11270	11374	11883	12264
9	Palakkadu	18081	18897	20804	22815	23981	24773
10	Malappuram	22395	23079	22620	23649	24745	25528
11	Kozhikode	22982	23448	16650	16750	17091	17427
12	Wayanadu	4993	5023	5035	5150	5179	5217
13	Kannur	18374	19248	22880	23916	25035	25948
14	Kanhangad	14256	14668	17150	17551	18339	18687
Total		366700	376810	407821	419174	428864	437100

Source: S & P Division, Rubber Board

APPENDIX-II
Area under rubber in Kerala comparison with all India figures

Details	1988-89 (ha)	1989-90 (ha)	1990-91 (ha)	1991-92 (ha)	1992-93 (ha)	1993-94 (ha)
Area under rubber in India	440584	460341	475083	488514	499374	508420
Area under rubber in Kerala State	366700	376810	407821	419174	428864	437100
Percentage of share of Kerala	83.23	81.85	85.84	85.80	85.88	85.97

APPENDIX-III
Total mature and immature areas (1988-89 to 1993-94)

Details	1988-89 (ha)	1989-90 (ha)	1990-91 (ha)	1991-92 (ha)	1992-93 (ha)	1993-94 (ha)
Immature	120040	108096	122861	117814	112045	104654
Mature	246660	268714	284960	301360	316819	332446
Total	366700	376810	407821	419174	428864	437100

Source: S & P Division, Rubber Board

APPENDIX-IV
Questionnaire for collection of details from rubber
growers whose holding has been insured under the
Rubber Plantation Insurance Scheme

1. Name and address

2. Location

Village

Taluk

District

(Jurisdiction of) FO/JFO station

3. Route to the plot from
nearest bus point

4. Details of rubber area (as on 31-12-1994)

	BG	Others	Total
Immature			
Mature			
Total			

5. Rubber trees

Stand per hectare Immature : Less than 500/ha

: Between 500-600/ha

: More than 600/ha

Mature : Less than 400/ha

: Between 400-500/ha

: More than 600/ha

6. Maintenance of the rubber holdings: Immature Mature

Very good

Good

Average

7. a) No. of trees under tapping :
- b) Tapping system adopted :
- c) Total yield obtained during 1993-94 tapping season (including scrap) :

8. Details of Insurance policy Immature Mature
 Certificate (1-8 years) (Above 8 year)
- i) Number with date
- ii) Extent insured
- iii) Month
- Year/years of planting
- iv) Stand per hectare at the time of taking insurance policy
- Rubber trees under age group 1-8 years
- 8-22 years

9. a) Whether Insurance Policy was taken out of
- a) own awareness/interest
- b) knowledge gained through other growers
- c) information received from Rubber Board Officers
- d) due to compulsion
- e) due to other reasons/ considerations (specify)
- 1)
- 2)
- 3)

9. b) 1) Whether fresh certificate purchased, on expiry of validity period : Yes/No
- 2) In case No - reasons : 1.
2.
3.
- 3) Whether the rubber grower is aware of all relevant rules of insurance scheme : Yes/No
10. Details on past experience of loss of rubber plants/trees sustained due to natural calamities (before taking insurance policy)
- a) No loss was experienced
- b) There was damage to rubber trees and financial loss sustained
11. Was there any loss of rubber plants/trees after taking Insurance policy
- Yes
- No
12. Was the claim preferred within time schedule prescribed by NIC
- Yes
- No
13. In case claim was not preferred within the time limit-reasons for the time lag/lapses
- 1) Unawareness
- 2) Due to cumbersome procedures
- 3) Loss was negligible and within margin limit
- 4) Other reasons
14. Loss/claim details
- Immature Mature
- a) Number of trees lost
- i) Totally
- ii) Partially
- b) Cause for loss
- c) Financial loss estimated Rs.

- | | | |
|---|---|--------|
| d) Claim preferred Rs. | | |
| e) Amount received as compensation Rs. | | |
| f) Time lag experienced in receiving the compensaion | Received within 1/2/3/6/12 months from the date of loss | |
| g) Whether any reference made to consumer protection forum court etc.
(give details of litigation if any) | | |
| 15. In case No compensation was received, reasons communicated by NIC | 1)
2)
3) | |
| 16. Details of verification | : Loss was assessed by | |
| a) Rubber Board Officers | | |
| b) Officers from NIC | | |
| c) Surveyor deputed by NIC | | |
| d) No one inspected | | |
| 17. a) Whether the compensation received is sufficient to make good for the loss sustained | Immature
Yes

No | Mature |
| b) Estimated amount realisable for the salvage Rs. | | |
| 18. In case of total loss, can the grower replant and bring up to tapping stage with the amount received as compensation, and the amount realised for the salvage | : Yes/No | |

19. Whether the grower is satisfied with the compensation received from NIC through Rubber Board for the loss sustained : Yes/No
20. If, not satisfied, suggestions to get satisfactory compensation : 1)
2)
3)
21. Arrangements/precautions made by the grower to minimise the loss/damages in future, in the light of experiences gained due to current loss : 1)
2)
3)
22. For cases insured as per Board's mandatory class only
- i) Had it not been made compulsory would you have insured : Yes/No
- ii) In case no - reasons : 1)
2)
3)
23. Remarks/Additional informations

APPENDIX-V
List of holdings surveyed

Sl. No.	Name and address	Year of planting	Extent planted (ha)	Planting material used
1	2	3	4	5
Claims not raised				
(Immature)				
1	Father Vicar St.Francis Xavier Church, Wadakkanchery	1992	1.45	BG
2	M/s.Maiyamma and Haseena Kurappath House, Oramanayoor, P.O. Kadangode	1988	2.20	BG
3	Sri.T.K.Anthonykutty Abilash, IX/79 Microwave Station Road Mission Quarters, Thrissur	1990	0.96	BG
4	Smt. M.J.Lucy W/o.Sri.V.Thomas, Mattathil House Mannuthy, P.O.	1989	1.05	BG
5	Smt.Chellamma W/o.Sri.Raghavan, Anthiyathil House Vattakottumala	1993	0.33	BG
(Mature)				
1	Smt.Subaidakunju Harisniwas, Mundathicode, P.O.	1986	1.86	BG
2	Sri.P.A.Thomas Poruthoor House, Wadakkanchery	1987	0.57	BG
3	Sri.O.Francis (PAH) Smt.Ruby Francis Thekkanath House, Paravattani, P.O.	1986	1.18	BG
4	Sri.K.Dharamapalan (PAH) K.Ravindran, Kaipada House Chathannoor, P.O.	1984	2.46	BG

Contd

Appendix-V. Continued

1	2	3	4	5
5	Smt.Manjula Ramachandran C/o.Sri.M.A.Narayanan Ezhuthachan Madathiparambil House, Madakkathara	1987	2.01	BG
Claims preferred and compensation received				
(Immature)				
1	Sri.K.O.Anthony Kuttikkadan House, Pazhuvil, P.O. Thrissur	1988	0.52	BG
2	Smt.P.Saraswathi Amma and Others (PAH) Sri.P.Ramachandran Karayathuvadakka House	1989	0.84	BG
3	S/s.P.M.Jeevan and P.N.Manjula (PAH) Sri.P.R.Venugopalan Parakkaulath House, Thirukkumarakudam Temple Road, Ayyanthole, P.O., Thrissur	1992	0.78	BG
4	Sri.P.R.Venugopalan Parakulath House, Ayyanthol, Thrissur	1992	1.58	BG
5	Sri.P.D.Anthony (PAH) P.D.Chacko, Purhur Green Villa Puthenpally, P.O., Guruvayoor	1990	0.74	BG
(Mature)				
1	Sri.V.P.Jose Vennittuparambil, Antharakampadam P.O.Mothirakkanny	1985	0.64	BG
2	Sri.O.P.Yacob (PAH) O.P.Pathrose, Ombalayil, P.O. Kolanchery	1985	3.51	BG
3	Smt.Mariyamma Poullose C/o.Sri.O.P.Pathrose Ombalayil, P.O., Kolanchery	1985	3.23	BG

Contd.

Appendix-V. Continued

1	2	3	4	5
4	Sri.P.D.Chacko Puthoor, Puthenpally, P.O.	1984	1.37	BG
5	Sri.P.P.John Puthussery Pady House, Thrissur, P.O.	1986	0.81	BG
Claims preferred by growers but rejected				
(Immature)				
1	Sri.P.S.Sankaranarayanan Poossery House, Cheroor, Thrissur	1992	0.83	BG
2	Sri.T.V.Jacob Thottumalil Puthenparambu Peechi, P.O.	1990	0.33	BG
3	Sri.V.K.Augustine Vengallur House, Kozhukully, P.O. Thrissur	1993	0.30	BG
4	Smt.Sathy W/o.Sri.N.Velayuthan Narayangadi, Mannuthy	1991	0.28	BG
5	Sri.V.Kuriyan Vengalur Veedu, Kozhukkully, P.O. Thrissur	1989	0.61	BG
(Mature)				
1	Sri.Joti Jose Chettupuzha House, Thekke Angadi Thrissur	1985	2.74	BG
2	Sri.C.J.Paul Cheruvalkaran, Kallur, P.O. Alagappanagar (Via)	1984	1.22	BG
3	Sri.C.J.Ouseph Cheruvalkaran, Kallur, P.O.	1984	1.46	BG

Contd.

Appendix-V. Continued

1	2	3	4	5
4	Sri.C.K.Ouseph Chakalamattathu, Mothirakanny, P.O.	1982	0.83	BG
5	Sri.Ouseph George Chackalamattathil, Kodunga Vellikulangara	1984	0.98	BG
Units covered by Board's incentive schemes (Immature)				
1	Sri.K.Kuraleedharan Kattalath House, Kondazhy, P.O.	1993	0.22	BG
2	Sri.T.Muralidharan Nair (PAH) T.Ramakrishnan Thodukattil House, Kondazhy, P.O.	1993	0.31	BG
3	Sri.P.D.Devassia Plakottam, Vellikulangara, P.O.	1993	0.78	BG
4	Sri.Jacobe Xavier Panthruveliyil, Vellikulangara	1993	0.38	BG
5	Sri.Thomas Puzhiyanippuzha Puzhiyanippuzha House, Muttithady, P.O.	1993	0.34	BG
6	Sri.K.Rudhrawariar Ushas, Ikandawarriar Road, Olloor	1993	0.26	BG
7	S/s.K.Rudhrawarriar & others Ushas, Ikandawarriar Road, Olloor	1993	0.30	BG
8	Sri.K.V.Abraham Kuriappurath, Kannara, P.O.	1993	0.37	BG
9	Sri.T.G.Ravendran Peringavu, P.O. Thrissur	1993	1.61	BG

Contd.

Appendix-V. Continued

1	2	3	4	5
10	Sri.T.K.Lakshmanan Thazhathedath, Vettukuzhi, P.O.	1993	0.23	BG
11	Sri.M.P.Poulose Mooda, Ponnambioly, Kuttichira, P.O.	1993	0.21	BG
12	Smt.Ammi Joseph Palayoor House, Poomala, P.O.	1994	0.53	BG
13	Master Sebastian Joy (minor) (Guardian) Sri.P.V.Joy Palathingal House	1993	1.58	BG
14	Sri.Francis Tharakan Tharakan Estate, Varavoor, P.O.	1993	1.18	BG
15	Sri.P.Govindankutty Nair S/o.Kutty Narayanan Nair Poonath House, South Kondazhy, P.O.	1993	0.25	BG
16	Sri.Babu Abraham Kizhurualil, Kaithakode Puzhayannoor, P.O.	1993	1.40	BG
17	Sri.Mathai, S/o. Yohannan Mattathil House, Marackal, Kannara, P.O.	1994	0.21	BG
18	Smt.Jessy W/o.Sri.James, Kunnath House Pangarappally, P.O.	1994	0.20	BG
19	Smt.Indira Gopalakrishnan Sree Shourag Madappat House, Kodunga, P.O.	1994	0.81	BG
20	Sri.Sukumaran Valliyil, Thozhupadam	1993	0.39	BG

