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LEVEL OF AWARENESS ON RECOMMENDED PRACTICES IN RUBBER SMALLHOLDINGS IN THE MONERAGALA DISTRICT

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SUMMARY

This article is based on information collected from participatory studies conducted in 4 selected villages in major rubber growing areas of the Moneragala district and during a farmer workshop representing smallholder farmers from several divisional secretariat divisions of the Moneragala district. The objective of these studies was to assess awareness on recommendations of the smallholders falling into planting, maintenance, tapping and processing of rubber. An understanding on the level of awareness is of immense importance in planning effective awareness programmes for the smallholder sector.

INTRODUCTION

Moneragala, being a non-traditional rubber growing area, the profitability of smallholder rubber farming is questionable due to poor technical know-how and inadequate market facilities. The Rubber Research Institute (RRI) is involved in experimenting on different aspects of rubber cultivation in non-traditional areas. However, the involvement with smallholder farmers is comparatively low when compared to the interactions with large estate owners. Recently, several studies were done and some are still in progress to identify the farmers' needs and perceptions on extension activities of recommended technologies in traditional rubber growing areas. They were found to be very successful in planning intervention activities to improve productivity in smallholder units.

A wide range of economic, social, physical and technical factors and risk attitudes of farmers determine the adoption process. Further, adoption is influenced by a range of concepts in relation to the characteristics of the farmer and by some attributes of the innovation itself. Hence, it is important to identify these factors to develop appropriate recommendations or modify the existing ones especially for the smallholder sector. Further, awareness levels can be used in planning effective extension programmes. This article is based on several participatory studies conducted in 4 selected rubber growing areas of the Moneragala district and in an in-house training programme done for farmers representing 7 *Thurusaviya* societies from Wellawaya, Bibile, Badalkumbura Divisional Secretariat (DS) divisions.

Methodology

Selection of study sites

During an initial discussion with the Rubber Development Department (RDD) officials, 4 villages representing 4 RDO regions (Table 1, Fig. 1) were selected based on the number of smallholders in each RDO region.

Table 1. *Selected villages for the study in the Moneragala district and their details*

RDO Division	Village	Details
Moneragala	Tanwatta	Extent: 225 ha. No of Farmers: 125
Badalkumbura/ Maligatenna	Karawila	Extent: 141 ha. No of Farmers: > 100
Medagama	Polgahapitiya	Extent: 90 ha No of Farmers: 110
Bibile	Radaliyedda	Extent: 44 ha No of Farmers: 75

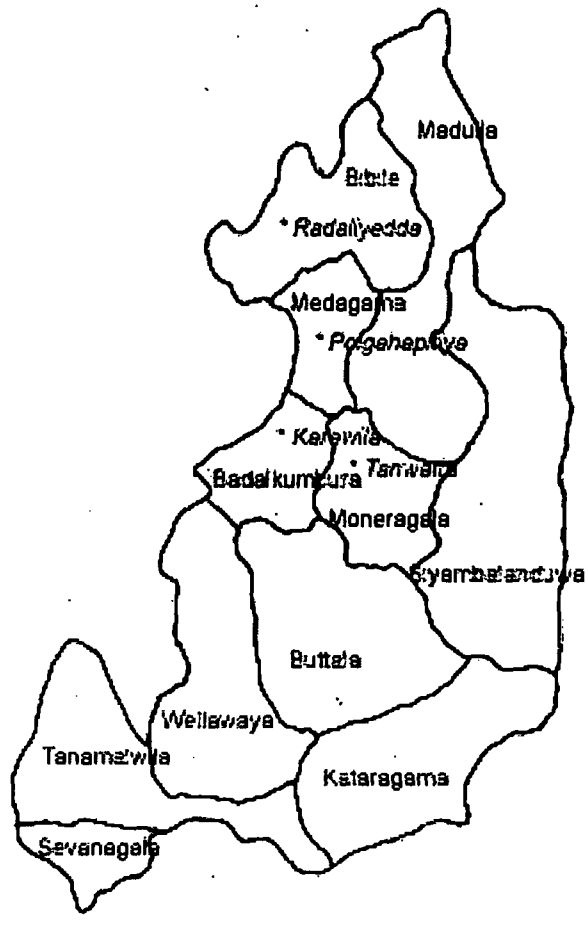

Fig.1. Selected sites and DS divisions in the Moneragala district

Participatory studies

The participatory studies were done in Tanwatta, Karawila, Radaliedda and Polgahapitiya during June and July, 2003. Participation was satisfactory in all villages with 70, 78, 72, and 80 smallholder rubber farmers in Tanwatta, Karawila, Radliedda and Polgahapitiya, respectively. The research team spent one day with the participants in each village. Another set of participatory studies was done in October 2005 with a group of 78 farmers from the Moneragala area representing Wellawaya, Bibile, Badalkumbura and Moneragala DS divisions prior to the training workshop. The results of this exercise will be presented in latter sections as the 'farmer group'.

Testing awareness on general recommendations in rubber planting and tapping

The objective of this exercise was to assess the awareness on recommendations falling into;

(a) Planting and planting material
(b) Soil fertility management and fertilizer application
(c) Intercropping
(d) Disease control and
(e) Rubber tapping.

Multiple Choice Questions (MCQ) were prepared for the above stated categories and displayed on boards with pockets hanging for each option of the answer. The questions were presented to the participants in a simple manner and for the answers, diagrams were used whenever possible. Simple local language was used always. The boards were displayed in a sequence and each participant was given a chance to read and select the answer according to their knowledge and put a slip (they were given a strip to tear off the slips) into the pocket of the corresponding answer (Fig. 2). The participants were facilitated if they had difficulties in reading the questions. Each participant was given one minute and was asked to move to the next question following the alarm (Fig. 2). Awareness rates were calculated as percentages (No. of participants given correct answers/Total participants). Percentages equal or above 80% were considered as 'highly satisfactory', 60% to 79% as 'satisfactory', 40% to 59% as 'moderately satisfactory' and below 40% were rated as 'un satisfactory'. Comparisons on awareness rates are made throughout this article using the results of participatory studies done in traditional areas with the same set of questions in 2002 (before awareness programmes) and 2003 (6 months after awareness programmes).

Awareness on agronomic recommendations

Planting related activities

The awareness on planting related activities for different aspects is given in Table 2, which depicts that the awareness rates were satisfactory only in several occasions but the overall awareness remained 'satisfactory' at 60%. The farmer group representing 7 *Thurusaviya* societies in 4 DS divisions showed a better overall

awareness (72%) compared to the overall awareness of the villages (58%). However, the awareness on recommended spacing and clones was found in the category 'moderately satisfactory' but some villages showed 'unsatisfactory' values. In contrast to this situation, the overall awareness on planting related activities in the traditional rubber growing areas was reported as 71% in 2002 (INTEREST, 2004).

Table 2. *Awareness on planting related activities*

Focus	% awareness					
	Karawila	Tanwatta	Rada-liedda	Polgaha-pitiya	Farmer group	Overall awareness
A1. Recommended clones	67	33	18	57	66	48
A2. Recommended stand per acre	41	69	80	44	72	61
A3. Recommended spacing	57	29	33	48	59	45
A4. Method of planting	82	68	60	82	81	75
A5. Size of planting hole	82	68	67	63	81	72
Overall awareness (%)	**66**	**53**	**52**	**59**	**72**	**60**

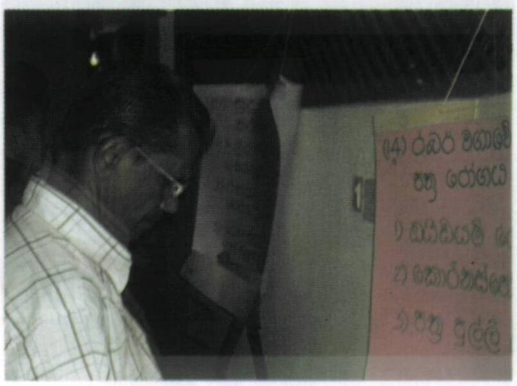

Fig. 2. Smallholder farmer involved in an awareness test

Awareness on soil fertility management

Awareness on soil fertility management was satisfactory (74%) in the Moneragala area (Table 3) when compared to planting related activities. A similar situation was observed with an awareness of 76% in traditional areas for soil fertility management (INTEREST, 2004). However, the awareness on application of urea-based mixtures was not satisfactory in all villages and within the 'farmer group'. The awareness on this activity was also poor (46%) in traditional areas in 2002 (INTEREST, 2004).

Table 3. *Awareness on soil fertility management*

Focus	% awareness					
	Karawila	Tanwatta	Rada liedda	Polgaha pitiya	Farmer group	Overall awareness
B1. Application of urea based mixture with Dolomite	64	27	61	46	68	**53**
B2. Fertilizer application for mature rubber	71	67	66	69	81	**71**
B3. Method of fertilizer application	95	68	73	75	93	**81**
B4. Soil conservation	82	84	79	67	80	**78**
B5. Soil fertility management	91	72	95	82	90	**86**
Overall awareness (%)	**81**	**64**	**75**	**68**	**82**	**74**

Awareness on intercropping

Awareness on intercropping was satisfactory (70% to 77%) and the overall awareness was 73 % (Table 4). However, the level of awareness on correct spatial arrangements for intercropping with rubber was not very satisfactory (55% to 63%) in the villages and within the 'farmer group', (Table 4) whereas in traditional areas the awareness for this category ranged from 69% to 95% (INTEREST, 2004).

Awareness on disease control

Awareness on diseases as well as control measures was unsatisfactory (38%) in all villages and within the 'farmer group' (Table 5). Similarly, in traditional areas the awareness on disease control was moderate (44%) (INTEREST, 2004).

Awareness on tapping related activities

Overall awareness on basic knowledge on tapping was in the range of 63% to 68%, which is not satisfactory. The awareness level was highly satisfactory with regard to correct time of commencement of tapping, frequency of tapping

recommended for new improved clones and the recommended system of tapping (Table 6). The awareness rates were found in the unsatisfactory level for A2. required girth at tapping and height of measurement (32%) and A3. Correct height of tapping panel (35%). The same sequence was found in traditional areas for A2 and A3 with 39% and 19%, respectively.

Table 4. *Awareness on intercropping under rubber*

Focus	% awareness					
	Karawila	Tanwatta	Rada liedda	Polgaha pitiya	Farmer group	Overall awareness
C1. General awareness on use of intercrops with rubber	82	86	91	90	92	**88**
C2. Correct spacing for rubber in intercropped lands	57	56	55	57	63	**58**
Overall awareness (%)	**70**	**71**	**73**	**74**	**77**	**73**

Table 5. *Awareness on disease control*

Focus	% awareness					
	Karawila	Tanwatta	Radali edda	Polgaha pitiya	Farmer group	Overall awareness
D1. Awareness on the *Corynespora* leaf disease	57	44	55	47	53	**51**
D2. Method of controlling white root disease	33	24	39	17	07	**24**
Overall awareness (%)	**45**	**34**	**47**	**32**	**30**	**38**

The overall awareness on technical knowledge of tapping was unsatisfactory and the values ranged from 11% to 36% in the villages, but showed an improvement within the 'farmer group' (57%) (Table 7). In traditional areas, the awareness was observed in the range 50% to 63% (INTEREST, 2004).

CONCLUSION

The overall awareness for planting related activities was found in 'satisfactory' level for Karawila and the 'farmer group'. Other 3 villages had moderately satisfactory awareness levels. However, focus should be directed at improving awareness on recommended clones and recommended spacing, where some villages had unsatisfactory awareness levels. Attention should also be focused

on recommended stand per acre in this area. Further, awareness on correct spatial arrangements of intercrops needs to be improved.

Table 6. *Awareness on basic knowledge of tapping related activities*

Focus	% awareness					
	Karawila	Tanwatta	Rada liedda	Polgaha pitiya	Farmer group	Overall awareness
A1. Required number of tappable trees to commence tapping	47	46	56	37	66	**50**
A2. Required girth at tapping & height of measurement	47	27	28	29	27	**32**
A3. Correct height of tapping panel	53	16	35	39	31	**35**
A4. Tapping panel marking	85	88	63	64	78	**76**
A5. Frequency of tapping for new clones	86	88	87	82	78	**84**
A6. Tapping system	75	83	90	84	90	**84**
A7. Cup hanging	65	68	73	74	69	**70**
A8. Correct time of tapping	95	100	90	87	89	**92**
A9. Sharpening of tapping knife	50	71	74	75	84	**71**
Overall awareness (%)	**67**	**65**	**66**	**63**	**68**	**66**

Table 7. *Awareness on technical knowledge of taping in different villages*

Focus	% awareness					
	Karawila	Tanwatta	Rada liedda	Polgaha pitiya	Farmer group	Overall awareness
B1. Tapping angle	10	0	20	13	54	**19**
B2. Tapping depth	37	4	8	19	86	**31**
B3. Thickness of bark to be removed in tapping	60	29	59	50	30	**46**
Overall awareness (%)	**36**	**11**	**29**	**27**	**57**	**32**

Soil fertility management had awareness levels above the satisfactory level in most instances, but the awareness on application of urea based mixture need to be improved in the Moneragala area. Awareness programmes on disease control methods need to be given high priority in this area, where the overall awareness was at unsatisfactory level.

In general, the basic knowledge on tapping was satisfactory. Yet, there were two areas found under 'unsatisfactory' level; *viz.* required girth at tapping and its height of measurement and correct height of the tapping panel, which need improvement in awareness. Awareness level on required number of tappable trees to commence tapping, was found to be moderate, but needs improvement as some villages had unsatisfactory results. Technical knowledge on tapping needs improvement with regard to a) tapping angle and b) tapping depth where the awareness was at unsatisfactory level. Thickness of bark to be removed in tapping is also not known to some farmers, especially in Tanwatta and within the farmer group.

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