

SOME EXTENSION AND TRAINING ASPECTS OF RUBBER SMALLHOLDERS IN MALAYSIA

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INTRODUCTION

The rubber smallholder sector in Malaysia accounts for 69% of the total land under rubber. It is estimated that more than half a million smallholders are directly involved in the rubber industry. While taking into account their families, the total number dependent on rubber as a source of livelihood is in the region of 3 million or about 1/3 of the population of the country.

In 1975, it is estimated that they produced 58% of the total rubber production in Malaysia, which is equivalent to 23% of the world's total output. Their contribution to the annual foreign exchange earnings is the highest amongst all exportable products, amounting to 20% in 1975. Despite their contribution to the Malaysian economy, the smallholders represent one of the largest sections of poverty groups (Government of Malaysia, 1973). To remedy this position the Government has taken positive steps to improve the socio-economic status of the smallholders by implementing various projects and activities.

The smallholder sector is served by several government agencies such as the Rubber Research Institute of Malaysia (RRIM), Federal Land Development Authority (FELDA), Rubber Industry Smallholders Development Authority (RISDA), Federal Land Consolidation and Rehabilitation Authority (FELCRA) and Malaysian Rubber Development Corporation (MARDEC). The roles of these agencies in providing extension and training for the smallholder sector are reviewed in this paper.

THE ROLE OF RRIM TOWARDS THE SMALLHOLDERS

From 1934 till 1972 the Smallholders Advisory Service Division (SHAS) of the RRIM was responsible for extension and education of rubber smallholders throughout the country. The RRIM through the SHAS was responsible for the pre-service and in-service training of professionals and paraprofessionals at the operative levels working in the various organisations in the smallholder sector. This division was superseded in the organisational changes of the Institute by two new Divisions namely, the Smallholders Project Research Division and Training Division and the formation of RISDA in 1973.

The main function of the Smallholders Project Research Division is to investigate the possibility of adapting various projects (e.g. stimulation, crown budding, reduction of immaturity period, poultry/animal rearing, proper fertiliser usage, intercropping, weeding etc.) for the benefit of the entire smallholder sector. It will work very closely with other Research Divisions of the Institute and will consider, where necessary, modification of significant research findings for immediate application to the smallholder sector. All the findings of the Division will be then conveyed to RISDA, which is responsible for the implementation of any large-scale research innovations in smallholdings.

The Training Division is responsible for all aspects and levels of training to provide for skilled personnel required by the Malaysian natural rubber (NR) industry, be it a smallholder, field manager, supervisory extension worker or marketing

officer. It has also absorbed the earlier training responsibilities of the Estate Advisory Service Division, Smallholders Advisory Service Division, the Processing School of the Applied Chemistry and Analytical Division and will eventually be taking over the other training functions within the RRIM. Training programmes are also offered to RISDA and RRIM field officers, FELDA and FELCRA personnel and others involved in the NR industry. Whenever necessary, new courses will be initiated to accommodate any special requirement (Samsudin Tugiman, 1973).

Objectives of training

The objectives of the training programmes carried out by the RRIM Training Division are :—

- To equip smallholders with up-to-date knowledge on all aspects of rubber so that they can become better smallholders in every sense of the word.
- To train professionals and paraprofessionals working in the various agencies in all aspects of rubber cultivation, production and processing.
- To train youths — especially sons of smallholders in all aspects of rubber planting, production and processing so that there will be an abundant supply of skilled manpower available to the NR industry (RRIM, 1976).

In short, the objective of the training programmes is the development of smallholders and professionals in all aspects of rubber cultivation, geared to the needs of the industry.

TRAINING OF SMALLHOLDERS

The training of smallholders was started in 1934 by the Smallholders Advisory Service Division. The duration of each training course was for one month and smallholders and their sons had to travel from all over the country to the RRIM Experiment Station, Sungei Buloh, for training. This system of training was not only expensive but the annual output of trained smallholders was small. The increased demand for training led to the establishment of four rubber training schools by the RRIM in the East, North, South and Central regions of the country. Smallholders and sons of smallholders were taken into these schools as temporary captive audiences and were given the necessary training in all aspects of rubber planting, processing and marketing. Each training programme lasts for about one month. In addition, training of smallholders are also organised and carried out at the rubber schools. The village instructions are held, to enable smallholders or their sons, who are in a position to attend the courses, to benefit from these village classes. Such training courses are held one day in a week over a period of six months.

Types of courses

Basically there are three types of training programmes for smallholders :—

- Standard Courses
- Practical Courses
- Short Courses

Standard Course : The Standard Course provides detailed practical instruction with sufficient theoretical instruction for smallholders and their sons who have at least passed the Standard V primary school examinations. Evaluation is carried out at the end of each course by examining the students in theory and in practical work.

Practical Course : This course, as the name implies, emphasises the practical aspects of training and is meant for smallholders who have had no elementary education. These courses are usually conducted at the villages in community centres or schools. The training session is held once a week for a period of six months. Each training session is for three and a half hours — one hour for theoretical instruction and two and a half hours is devoted to practical work.

Short Course : This course is given to specific groups of smallholders or land development scheme settlers on specific topics related to their needs at a particular time. In a holding that it ready for tapping, for example, a short course on tapping is organised to provide practical knowledge to the smallholders or settlers, to enable them to carry out their jobs more efficiently and effectively. Emphasis in such courses is placed on "learning by doing".

Course curriculum

The course curriculum covers the topics of :

replanting, planting material/towards shorter immaturity period, weed control, manuring, pests and diseases, inter-cropping/mixed inter-cropping in rubber holdings, animal husbandry, tapping, tapping systems, stimulation and processing /basic marketing.

The above topics are included in the curriculum for the Standard Course and the Practical Course. The curriculum for the Short Courses varies depending upon the immediate needs of the smallholders.

Finance

Smallholder training carried out by the RRIM is fully subsidised by the Institute. Each participant-smallholder however, is required to pay a token sum of Malaysian 30 cents per day towards the cost of training.

Achievement

From 1957 — 1974, there have been 283 courses conducted at the four RRIM rubber schools where 6,603 smallholders have been trained.

At the village centres from 1957 — 1974, a total of 1,443 courses were conducted with a total of 43,569 smallholders trained.

In addition, 49,984 smallholders attended the various short courses conducted by RRIM from 1963 — 1974.

It can be said that about 100,000 smallholders and sons of smallholders have had some form of organised training in rubber, carried out by the Rubber Research Institute of Malaysia between 1957 — 1974, (RRIM, 1976). This implies that one out of every four or five smallholders in the country has had some form of training in rubber.

TRAINING OF PROFESSIONALS

With the establishment of the Training Division in April, 1973 the training of personnel required by the industry was stepped up. When training of professionals was carried out initially, it was only meant to fulfil the need for trained personnel in the RRIM itself. But with the rapid development of the NR industry through replanting and new plantings, the training programmes carried out by the RRIM had to be geared to fulfil the needs of other agencies working in the smallholder sector.

Organised staff training in the RRIM, in rubber cultivation and processing, first commenced in 1934, when the first batch of nine Diploma graduates of the School of Agriculture, Serdang, was recruited to the newly established Smallholders Advisory Service Division, to serve as rubber instructors. Since then a steady stream of new recruits have been trained, in similar fashion, under the direction and supervision of senior rubber instructors and senior officers. A three month pre-service training course on rubber planting, management and processing for junior staff of the SHAS, known as assistant rubber instructors, was started in 1954 when the need for trained personnel in this category increased (Samsudin Tugiman, 1973,). With the establishment of agencies like the Rubber Industry Replanting Board (now known as RISDA), FELDA, FELCRA etc. the training programmes for such personnel were included in the assistant rubber instructors training programmes. Training activities of the RRIM have gained importance with the establishment of the Training Division in April, 1973.

Types of training programmes for professionals

The training programmes for rubber professionals include : Three Month Courses, Five Week Courses, Short Courses and Extension Courses.

Three Month Rubber Course : It is a professional course covering topics on rubber planting, management, processing and extension work in smallholdings. The course is normally conducted for a period of three months and includes theoretical instructions and practical work. Evaluation is carried out at the end of each course through examinations.

Curriculum : The curriculum for the Three Month Course include the topics of :

Planting material, nursery techniques, planting, budgrafting, manuring, control of pests and diseases, inter-cropping, tapping, processing, marketing and extension education.

The whole course covers a period of 160 hours of theoretical instruction and 190 hours of practical work. Students of this course have to stay at the school complex. Lecturers for this course are selected from the research officers of the various divisions of RRIM.

Five Week Rubber Course : This is a rubber course which occupies a time period of five weeks and is carried out to train professionals and paraprofessionals at the operative level who have not made the grade for admission into the three-month course due to inadequate qualification. The paraprofessionals, however, have already been employed by the various agencies concerned.

The curriculum for the five-week in-service training programme includes such topics as planting material, replanting of rubber holdings, control of pests and diseases, manuring, inter-cropping, tapping, processing and marketing.

The Five-Week Course covers a period of 180 hours of theoretical instruction and 54 hours of practical work. Such courses are normally conducted in the rubber schools. Lecturers for such courses are from the personnel of the Training Division.

Short Course : The topics for the Short Course include natural rubber processing, soil, soil management and nutrition of rubber, crop protection and weed control in rubber plantations, tapping, tapping system and yield stimulation, rubber planting and estate management and planning.

The Short Courses are normally run for a period of one week, covering about 18 hours of theoretical work and 9 hours of practical work. Research officers from the various divisions and personnel from the planting industry are selected as lecturers for the course.

The Short Course is an in-service training course which occupies a period of one week. It serves as a refresher course for professionals at the managerial level on selected topics in rubber processing, management, tapping, crop protection and weed control and rubber planting.

Agricultural Extension Course : This is a new course organised for RISDA field officers. The objective of this course is to guide participants in planning, implementing and effective evaluation of education extension schemes. Its main aim is for further progress in agricultural and rural development.

Outline of course

Introduction

- What is extension work
- Difference between the concepts of extension and device
- Objectives of extension work
- Basis of extension education

Extension Education

- Learning process
- Requirement of extension workers
- Encouragement
- Basic principles

Methods of teaching extension work

- Mass method
- Group method
- Individual method
- Audio-visual aids

Work with the public

- Individual attitude
- Public speeches
- Cooperation with District Officer
- Public Relations

Programme

- Planting
- Work plan
- Schedule
- Acknowledgement

Organising

- Lectures
- Forum
- Seminar
- Demonstration
- Short-Term Course

Finance

The cost of training the professionals is borne by the sponsoring agency of a trainee. At the moment, for the three months course and the five weeks course, each trainee has to pay a sum of US \$ 6/- towards the cost of food and other related expenses. There is no tuition fee and lodging is provided free.

Selection of participant trainee

Training programmes are normally planned one year in advance. Leaflets or brochures on the various training programmes are sent to all relevant organisations concerned with rubber. These agencies are to send in the names of trainees they wish to sponsor. Preference is normally given to sponsored trainees.

Achievement

In terms of training of professionals the RRIM has up to 1974 conducted about 25 three-month courses for 750 paraprofessionals at the operative level. The Training Division also conducted refresher courses for 647 professionals at management levels. Although up to date about 1,843 professionals at all levels have undergone some form of training in rubber, there is still the need for about 600 more professionals (RRIM, 1976) at management levels to be trained in rubber cultivation, management, processing and marketing from 1976 — 1980. (Government of Malaysia, 1976).

FUTURE WORK ON TRAINING

While in the past the training programmes carried out by the RRIM were more on an *ad hoc* basis, future training programmes will be based on the needs of the trainees — be they smallholders or professionals. With the advances in technology and the recent establishment of several organisations responsible for the smallholdings sector, the needs of smallholders and the emphasis of their needs also change, as depicted in the priority of development and modernisation programmes of these agencies. Professionals working in these agencies have also to be reoriented to meet these changing needs. The Training Division is now in the process of carrying out a research programme with the collaboration of agencies like RISDA, FELDA, FELCRA, MARDEC and State Development Corporation (SEDC) to determine the training needs of such professionals working in these agencies. Future training programmes will be based on these needs.

Training is an important factor in the development and the modernisation of the smallholder sector. Through training programmes the latest innovations that emanate from research can be channelled to the recipient smallholders. Professionals likewise have to be kept up to date with the recent developments in rubber research through training. Thus with trained smallholders and professionals, the smallholder sector of the NR industry in Malaysia can be assured of a bright future (Sam-sudin Tugiman, 1975).

RUBBER INDUSTRY SMALLHOLDER DEVELOPMENT AUTHORITY (RISDA)

RISDA was set up and became operative with effect from 1st January, 1973 as a result of the enactment of the Rubber Industry Smallholders Development Authority Act, 1972 under Malaysian Law (No. 85).

Basically RISDA is responsible for all aspects of development in the smallholder sector in the Malaysian rubber industry. Through RISDA the development efforts are geared towards modernising smallholders' rubber and implementation of research findings in all aspects of replantings, uses of high yielding planting materials, modern methods of processing and marketing. RISDA's policy is the implementation of the concept of integrated approach to all problems affecting the rubber smallholder sector and it is responsible for the implementation of all development programmes to improve their economic well being. In the past the problems of the rubber smallholder were tackled by various organisations such as the Rubber Industry (Replanting) Board, the Smallholders Advisory Services of the Rubber Research Institute of Malaysia and Government rubber schemes. Now these problems relating to the smallholders will be the overall responsibility of RISDA who will coordinate overall government policy, affecting all smallholders.

Objectives of RISDA

The objective of RISDA in particular is to improve the economic well being of the smallholders. RISDA carries out various activities for the development and progress of the smallholders' sector and ensures that modern agricultural practices and modern systematic methods for higher productivity and benefits of the smallholders are achieved. In order to achieve these goals, various projects have been launched, giving maximum opportunity for smallholders participation, so that they can benefit and increase their income through better efficiency and productivity, brought about by their own efforts.

RISDA'S operation is based on four factors of production, that is availability of land, labour, capital and management. Smallholders are provided with land and labour to work on. On the other hand, RISDA provides assistance in the form of both grants as well as material and advisory services to assist smallholder entrepreneurs. Effective combination and application of these four factors of production are important in order to achieve higher levels of productivity and efficiency. RISDA's role in this field is to ensure that smallholders make full use of their land as well as the assistance provided by RISDA.

In order to achieve the overall objective, RISDA implements various activities which include replanting, opening of new lands to be developed as plantations for the benefit of the smallholders, preparing and supplying planting materials and providing services by which they can be made available to the smallholders, obtaining statistics, carrying out project evaluation and improving the marketing system for the smallholders' rubber. All these activities are geared to improve the social and economic well-being of the smallholders.

In addition to this, RISDA has also been given the task to accelerate the replanting activities in the estate sector which was formerly carried out by a separate organisation.

In order to ensure that all these activities are achieved, RISDA is empowered to :—

- Implement agricultural innovations that emanate from research ;
- Cooperate and liaise with all other international agencies responsible for research, extension, production of agricultural credit, processing and marketing of rubber and effect expeditiously the modernisation of the smallholder sector ;
- Carry out the replanting and new planting of the smallholder sector with modern high yielding planting materials in a comprehensive and systematic manner ;
- Ensure that the smallholder sector is modernised in every sense, to improve the economic well being of the smallholders ;
- Obtain and keep statistics relating to the smallholder sector and to cause information to be available to the Government ; and
- Take part in such activities as the Minister responsible determines from time to time relating to the improvement and development of the smallholder sector.

COORDINATION WITH OTHER DEPARTMENTS AND AGENCIES

In its effort to develop the smallholder sector, RISDA maintains close cooperation with various Departments and various Agencies especially those involved with research, development, agricultural credit, processing and marketing. The coordination and cooperation with other Agencies are important because the services of these Agencies can be coordinated and be made more effective and beneficial to the smallholders. The related agencies are MARDEC which is responsible for converting to Standard Malaysian Rubber (SMR) and marketing the smallholders' rubber, the RRIM which carries out research relating to rubber, the Malaysian Agricultural Research and Development Institute (MARDI) which carried out research pertaining to the development of crops other than rubber and Farmers Organisations Authority (FOA) which is responsible for the development in the agricultural

sector. Apart from these organisations, RISDA also works closely with the Agricultural Department which is responsible for all aspects of development of the agricultural sector, the Malaysian Rubber Exchange and Licensing Board and state government as well as the Land Office which is the overall authority on land in the states. The nature of coordination with this organisation has benefitted the smallholders. In the case of research being made, this is done by the RRIM, while RISDA acts as the implementing agency. These are mainly in the field of planting husbandry and processing. In other words, RISDA, delivers the 'finished products' to the smallholders.

In areas where MARDEC factories do not exist, RISDA organises Group Processing Centres and arrangements have been made to sell rubber sheets from these centres to MARDEC factories. Where MARDEC factories exist, RISDA encourages the smallholders to sell the latex to such factories. In this respect the co-operation and coordination between RISDA and MARDEC have benefitted the smallholder in the field of SMR processing and marketing.

The coordination and the string of responsibilities towards the development of smallholder sector has been established with the Chief Executives of these organisations being represented at the policy making or governing level of each of these bodies. The Chairman/Director General of RISDA is also a Board Member of the RRIM and MARDEC and the same applied to the Director of the RRIM and some of the members of the MARDEC who are also represented in RISDA as authority Members.

The Ministry of Primary Industry provides overall coordination of all these programmes. One of the many functions of the Ministry is to accelerate and ensure the overall development of the smallholder sector and it is represented in all the policy making bodies of rubber orientated organisations such as the Malaysian Rubber Exchange, Malaysian Rubber Licensing and Marketing Board and the Rubber Producers Council, besides RRIM, MARDEC and RISDA. Through these bodies, the Ministry provides an integrated form of planning and development to serve the needs of the industry (RISDA, 1974).

FEDERAL LAND DEVELOPMENT AUTHORITY (FELDA)

Brief introduction

The FELDA was established on 1st July, 1956, under the Land Development Ordinance No. 20, following the recommendations of a government working party, which found that "there is in this country a very real need for planned and coordinated development so as to ensure that economic development goes hand in hand with social development".

FELDA's duty, then is to provide and assist the investigation, formulation and carrying out of projects for the development and settlement of land within the Federation.

Functions (FELDA, 1967)

- The economic utilisation and development of sizeable areas of unused or undeveloped land, thus ensuring minimum cost and maximum returns ;
- The settling of deserving and qualified landless families on the land thus developed ;

- The establishment of infra-structure services, such as transport and communication facilities in the various settlement schemes ;
- The establishment of social and public amenities such as schools, clinics, water supply to the settlers ;
- The provision of modern processing and marketing facilities to ensure efficient production and fair price for the settlers ;
- The provision of training and extension services for promotion of good husbandry and social development.

Objectives

The overall objective of FELDA, as the government organ of rural development, is to correct the economic imbalance between the rural and urban population. As the majority of the rural population are Malays, it is in effect to correct the imbalance between the Malays and the rest of the population.

The objectives of FELDA have been described in many ways in a clear and precise way. They are :—

Land Ownership Objective — to distribute land in an economic size to the landless. This size had varied from 4 to 8 acres over the years. It is now the intention to distribute 10 acres per family.

Income Objective — to increase the farm income of the rural family to about \$300 per month.

Employment Objective — to create jobs for the unemployed and underemployed.

Social Services Objective — to provide educational, health and housing services to the rural areas. (FELDA, 1976).

Training activities and programmes of FELDA for the staff and settlers: The training of staff and settlers has become an essential activity within FELDA and it is being conducted through "formal" as well as "informal" methods. Over the last few years, particularly the beginning of the Second Malaysia Plan in 1971, a systematic effort has been made to create and strengthen organisation and institutions within FELDA to provide support for a comprehensive training programme.

The basic purpose of staff training is to help them improve performance and effectiveness in the job they are doing. This is sought to be achieved by :—

- Increasing their knowledge and bringing this up-to-date from time to time ;
- Improving their skills in doing jobs assigned to them ;
- Creating favourable attitudes towards their jobs and the organisation in which they work in order to maintain a high standard of morale and climate for work.

In the case of settlers, the training courses are geared to meet the following overall objectives :—

- To develop the technical, management and decision making capacity of settlers in order to enable them to use these skills in individual and organised group action, covering both economic and social fields ;
- Prepare settlers to play their role in scheme administration and management to the fullest possible extent, with FELDA providing extension, processing and marketing services after the loan repayment period is over.

The training for settlers and their dependents is of three types :—

- Training of settlers leaders (men and women). Formal training of settler, women and youth leaders is mostly conducted at the training centres/schools lasting five to six days. The stress here is on leadership and its associated roles and responsibilities. FELDA's policies and development programmes are also included.
- Training of settlers in general. In view of the large numbers, general settler training activities are carried out in schemes. These usually include :—
 - Orientation training for new settlers to initiate and familiarise them to the life and work of the scheme.
 - "On-the-job" training to improve the settlers' skills and techniques in performing their tasks of management of agricultural holdings.
 - Training in community development and social aspects to initiate a process of socialisation.
- Training of settlers dependents (vocational training) to provide the manpower to man the oil palm factories, rubber factories, offices *etc.*

CONCLUSION

It is clear that rubber will continue to be the most important crop in the economic development of Malaysia. The smallholders will remain the largest single group of small farms of Peninsula of Malaysia in years to come. Although the smallholder sector has been served by strong research and extension organisations like the RRIM and a host of other agencies for a number of years, there is still the need for improvement, especially in terms of increasing production per unit area and improving the quality and quantity of the rubber output of smallholders in general. Comparing with the estates, the smallholders are far behind in the field of processing, production and marketing. Much of the problems that had precipitated the present situation of the smallholders, were problems associated with extension and training of the personnel involved in the smallholder sector of the rubber industry.

Steps taken by the various organisations *viz.* RRIM, RISDA, FELDA, *etc.* to remedy the various problems faced by the smallholders of the rubber industry are slowly but surely bearing fruit.

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