FARMER TRAINING PROGRAMMES IN SRI LANKA

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Introduction

This paper will attempt to give an overview of training programmes for farmers and farmer leaders during the decade since 1976. More significant events arid happenings in farmer organisation and training took place during the 10 years from 1976, than during the whole period since independence. This period could justly be called the Decade of the Farmer.

In 1976, the first year of the decade, the first settlers began trickling in to the Mahaweli System **H**. The Accelerated **M**₄haweli programme was launched in 1978. The Training and Visit System was first introduced as a pilot project in the Anuradhapura District and later extended to the whole island in 1979. World wide attention was also focussed on participatory management of irrigation systems. The Farmer Organisations Programme in the Gal Oya was started in 1980, utilizing the services of a catalyst type change agent called an Institutional Organizer (IO). By 1985 the major part of the project was completed with farmer organisations at every field, distributory, main channel and project levels, organized and managed by responsible self-reliant farmer representatives (FRs). The success of the Gal Oya experiment influenced government thinking and government policy on farmer organisations for water management. The creation of the Irrigation Management Division in the ID was one of the most

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significant land marks in the history of participatory irrigation water management. The decade also saw the birth of several other experiments such as the Small Farmer Development Programme, the V llage Irrigation Rehabilitation Project (VIRP) the Wew Sabha system of the Freedom From Hunger Campaign Board, the Change Agent Programme (of the Miristry of Plan Implementation), and the Farmer Organisation Programmes in several major irrigation systems, particularly in the Polonnaruwa District.

For the purpose of analysis the paper is divided into four major areas:

- 1. The predominantly paddy and subsidiary food crop cultivation areas in the dry and wet zones prior to the T & V.
- 2. The uperation of the T & V system with particular reference to Kurunegala District.
- **3.** The farmer training and extension activities in the Accelerated Mahaweli Project Areas.
- 4. The Gal Oya Water Management project area, where an innovative programme of farmer training was practiced from 1980 to 1985.

Each of the four major areas will be reviewed in some detail in the paper, and an attempt will be made to pick out the salient features in these areas.

Agricultural Extension and Farmer Training Prior to the T&V System

An Overview. Since independence and up to the introduction of T & V system there were many changes in the administrative structure and infrastructure of the Department of Agriculture. The links between the researcher, extension worker, and the farmer were further strengthened. The increased focus on extension and training of farmers was a natural development. The creation of several other departments, corporations, and statutory bodies dealing with some aspect or another of agricultural development, not only attempted to fill in gaps and inadequacies but also forced the Department of Agriculture to concentrate and focus on agricultural extension. The growth and strengthening of the Ocpartment of Agrarian services as the agency responsible for agricultural inputs and credit, took away much pressure and authority from the Department of Agriculture. The creation of other Government Corporations particularly the Paddy Marketing Board, the Agricultural Development Authority, the Fertilizer Corporation, and special government agencies for major and minor export crops had a similar effect on the Department of Agriculture. One could even say that the adoption of the T & V system was inevitable. Extension and research therefore, became the major focus of the Agricultural Department's activities.

The Impact of Training and Extension.

A study conducted by the Agrarian Research and Training Institute (ARTI) in the early 1970s in five Districts gives an indication of the agricultural extension racthods practiced in a rural district in Sri Lanka (ARTI 1974). It should be noted that the extensiveness of the area and the prohlems of mobility due to difficulties in transport affected the extension programmes. Moreover the extension effort concentrated primarily on paddy cultivation.

A review of farmer training and extension programmes of the early 1970s highlights many problems and constraints:

- 1. An Agricultural Instructor covered about 300 to 4000 hectares and a KVS about 1000 hectares. In the Dry zone the area is quite extensive and poor public transport created problems of mobility.
- 2. In spite of high acceptance of the new high yielding varieties, difficulties in obtaining inputs such as seed paddy, fertilizer, and agro-chemicals, and low acceptance of proven methods such as transplanting rows, seeding, etc., resulted in comparatively poor yields.
- 3. The optimum use of credit facilities was not made, with failure of loan repayment as a major impediment.
- **4.** Farmers showed a great dependency on agricultural extension staff. There was little evidence of farmers actively participating in extension work.
- Farmers should have been actively involved in efficient water management, particularly in operations arid maintenance of irrigation systems. Poor water management often nullified benefits from improved varieties.
- 6. The didactic or one way method of training and extension needed to he replaced by more innovative and dynamic methods.
- 7. Better coordination between the different government agencies and the farmer was needed.

The Training and Visit (T&V) System of Extension and Farmer Training

The introduction of the Training and Visit (T&V) system was in a way a logical development of the existing agricultural extension and farmer training programmes. The T&V system attempted to fill in the gaps and reinforce the existing agricultural infrastructure. The discussion in this part will be based mainly on the T&V system which was in operation in the Kurunegala District in 1981.

The main features d the T&V system. Benor, Harrison, and Baxter (1984) have outlined the main features of the system as follows:

- 1. It is a systematic programme of training for the Village Extension Worker (VEW) (in Sri Lanka called the Krushikarna Viyapthi Sevaka-KVS), combined with frequent visits to farmers.
- 2. The staffing requirements usually are:
 - a) One agricultural Extension Off cer, (equal to Agricultural Instructor- AI) who guides and train:, six to eight VEWs.
 - b) Six to eight Agricultural Extension Officers guided and supervised by a Sub-Divisional Extension Officer (equal to Agricultural Officer) (AO).
 - c) Sub-Divisional Extension Officer is supported hy a team of Subject Matter Specialists.
 - d) Four to eight Sub-Divisional Extension Officers (AOs) are supervised by a District Extension Officer (equal to an Asst. 'Director of Agriculture in Sri Lanka) also supported by Subject Matter specialists.
 - e) The ratio of VEW to farmers is .:800. When the population is dispersed the suggested ratio is 1:500.
- 3. The area of a VEW is divided into eight groups of about equal size
 - a) The VEW selects one farmer in each group to be the Contact Farmer, who should be the link between VEW and farmers.

- h) The VEW visits each group for a full day, once a fortnight, on a pre-arranged schedule.
- c) One day of the fortnight is ear-miirked for the training of VEWs by the AO, and Subject Matter Specialists.
- 4. The VEW, the AI, and the AO should live within the area of their jnrisdiction.
- 5. The VEW, the AI, and the AO are guided and supported at the district and national level by the appropriate superv sing officials supported by Subject Matter Specialists.

The Operation of the T&V System in Kurunegala District

The Kurunegala Integrated Rural Development Project (KIRDP) was in operation by 1979 and the T&V system was implemented systematically in the district as a part of the project. At the request of the Ministry of Plan Implementation, (the agency responsible for Integrated Rural Development Projects) the ARTI undertook an evaluation of KIRCP (Gunawardana and Chandrasiri 1981). Subsequently in September 1982, ARTI commissioned another study on "The field level implementation of rural cevelopment projects," under the KIRDP (Canewatte et al. 1982). This study too looked at the operation of the T&V system. The following analysis and review of the T&V system is based largely on these two studies.

KVS's visit to farmers. Each KVS catered to 720 farm families in the Dry Zone part and to 850 farm families in the Wet Zone part, with an average of about 800 farm families per KVS in the District. Each KVS had 36 Contact Farmers. Each contact farmer, on average, hid about 22 follower farmers. The size of a KVS range varied from 3.2 square miles in the Wet Zone part to about 9.8 square miles in the Semi-Dry zone part.

KVS and the Contact Farmer. The KVS and Contact Farmers had close links. A majority of Contact Farmers reported that the KVS visited them regularly and that they established friendly relationships. Fifty-two percent of the Contact Farmers reported meeting with the KVS in the farmer's home and 24% identified the field as the meeting place. When meetings were held in the home, group demonstrations were arranged in the nearest field.

Participation of **nondesignated farmers at Contact Farmer meetings**. The participation of nondesignated farmers in Contact Farmer meetings and links between the Contact Farmer and the designated fol ower farmers appeared to be the

weakest link in the chain. It is interesting to note that participation of nondesignated farmers at meetings was as high as 80% in the Dry zone part. This may be due to the fact that the farmers there were wholly dependent on paddy farming and placed greater reliance on extension act vities. At present only the Contact Farmer is identified and the study pointed out the need for considering the whole village as forming **a** cluster of Contact Farmers and follower farmers. This seems a logical step to take as the pattern of most dry zone settlements is of the cluster type.

Fortnightly training of KVSs. The study indicated that the fortnightly training sessions organized by the AIs and the Subject Matter specialists were held regularly and were well attended. However, 82% of KVSs reported that the contents and methods of training could be improved. The subject areas of training and the extension messages to be carried out centered on a variety of topics, ranging from paddy cultivation, land preparation, water management, nursery management, cultivation of subsidiary crops, home gardens, and cheria crops, pest and disease control.

It appears that the training of KVSs had some impact in upgrading their knowledge and skills. A careful assessment of the curricula and schemes of training has not becri undertaken systematically. The KVS tended to follow a didactic relationship with farmers. It was also 'observed that emphasis in the training was on paddy farming and not so much on subsidiary food crops, home gardens, and chena crops.

Non T&V activities of extension staff. One as sect that came out clearly in the study was the pressure on the KVSs' time. He/She had to spend a fair amount of time on activities not directly connected to tic T&V system, such as attendance at meetings of voluntary organisations, conferences of other Government departments, etc.

Mobility of extension staff. A major grouse voiced by KVSs and AIs was the difficulties they face due to the extensive areas they had to cover and the poor transport and communication facilities available to them. They also reported that public transport facilities were better in the Wet Zone areas of the district. The study also revealed that about a sixth of the AIs owned motor bicycles and another one third had only push bicycles. Near y 50% had to depend on public transport. In the case of KVSs about 80% had push bicycles. Those who did not have push hicycles were usually women KVSs who would not ride bicycles.

Dialogue between research and extension personnel. The study reported an improvement in the dialogue between field extension personnel and the research staff. The Regional Technical Working Group meetings and conferences provided opportunities for closer interaction. The improvement in the mobility of AOs and Subject Matter Specialists helped the dialogue.

FARMER TRAINING IN THE MAHAWELI PROJECT AREA

The discussion of farmer training in the Mahaweli Project area is based primarily on the writer's personal experience gained in the Mahaweli \mathbf{H} system and on the discussions with senior officials of the Mahaweli Project.

During a short time span from 1976 on, there was much exploration and experimentation on farmer organisations, farmer training, and community development. The settlement pattern, organisation, and infrastructure provided a good base for training and community development activities.

The Settler/Farmer Training Programmes of the Mahaweli is much more broadbased than the T&V system. Jayawardene (1983) in his preface to the Training Manual for Project Officers and Farmer leaders states that:

When I 'talk of settler training, I am not speaking in terms of merely training the farmers to cultivate various crops successfully and profitably. I am speaking in terms of training the settlers in a multiplicity of disciplines that include agriculture, irrigation, marketing and credit, and equally important, community development.

The farmer training and farmer organisation in Mahaweli H system was first started by the Mahaweli Development Board during the 1979 Yala Season. Earlier, there was pandemonium when the xater issues were made and, due to lack of organisation, the tail-enders were badly affected and much water was wasted; as a result the Mnhaweli authorities looked for ways of developing an efficient irrigation water distribution system. The turnout with its 12 to 20 farmers operating about 30 to 50 acres proved to be the logical starting point for farmer organisations.

Agricultural Extension and Farmer Training

At the outset, when training needs were identified, there emerged the need for training of farmers, farmer leaders, and of ficials in three main areas:

- 1. *Water Management* including equitable distribution, operation and maintenance, and problem solving at the Turnout level.
- 2. Agricultural Extension educating farmers and farmer leaders in land preparation, sowing of crops, use of fertilizer and agro-chemicals, on-farm water management, etc.

3. Community Development . Fostering community participation, local leadership, input delivery systems and undertaking community development work.

The Turnout Farmer Organisation

The field workers in the three disciplines (Water Management, Agricultural Extension and Community Development) agreed that education pertaining to agricultural production should he coordinated by the Water Management Unit. For the first time in Sri Lanka, the authorities recognized the need for organising farmers around water and its distribution and in this sense, it was a fore: runner to the farmer organisation programme of the Gal Oya Water Management Project. It is significant that activities relating not only to water management but also to agricultural extension and community development were organized at the Turnout level.

The first farmer leaders training programme commenced in August 1979. Farmers were asked to select two leaders per Turnout group, one as farm manager to deal with water management and community development matters and the other as the Contact Farmer. A joint team drawn from several disciplines decided on the strategy and methods of training. The selection of the two farmers at the turnout level was left to the farmers. The training programme was closely monitored. By 1981, after **3** years of the programme, **56%** of the Turnout Leaders and 75% of the officers were attend ng the training classes (Khan 1982). The biggest achievement of the training programmes was bringing about coordination and understanding between farmers and officials. Agricultural extension is done fairly well but needs further reinforcement. Community development has a long way to go. Some water management problems continue to trouble the farmers.

The initial enthusiasm and optimism for Turnout group farmer organisation was apparently not evident in later years (Winaladharma 1980). It was generally believed that with the passage of time, farmer needs and aspirations undergo change. The initial problems were in respect of land and water for cultivation; later on, religious, social, and cultural aspects demanded the attention of the settler farmers. They needed a forum with a broader hase than a Turnout organisation to look after their affairs. It was then ttat the authorities came up with the idea of Settler Development Associations.

Settler Development Associations

The Settler Development Associations of the Mahaweli were largely influenced by similar societies of the FELDA scheme in Malaysia. The essential features of the Settler Development Association are:

- 1 A formalized organisation with a constitution drawn up by the Mahaweli authorities.
- 2 The chairman was the unit manager, and the treasurer was another exofficio appointee.
- **3** The SDA encompassed a hamlet with about 200 to 250 families and was thus hased on residence rattier than on field operations.
- 4 The functions of SDA involved the whole gamut of community activities, agricultural production and marketing, social and religious affairs.

After about 4 years. the SDAs were allowed to die down. From 1985, the Turnout Groups have been revived and federated into a Distributary Channel Organisatiou in the Kalawewa area. For training purposes, the Tim-out Group remains the active forum.

The Gal Oya Farmer Organisation Programme

The Gal Oya Project undertaken in 1948, was the first large reservoir irrigation system of the country prior to the Mahaweli Project. After about 30 years of operation, decay and deterioration had set in and the system operated at low cfficiency. The Government, with assistance from USAID, commenced rehabilitation of the project in 1980. An important activity of the project was initiating a farmer organisation programme for water management.

The strategy adopted was to carefully train field catalyst agents, 10s. Their main task is to promote farmer organisations for efficient water management and in the process develop a self-confident and self-reliant farmer community. The IO also facilitated the formation of farmer groups in small hydrologically defined areas, usually a field channel of $10t_{2}$ 15 farmers operating in an area of ahout 30 to 50 acres. The farmer group selects by consensus a **FR** who functions as the link between farmers, different levels of farmer organisations, and officials, It has been decided that the **FR** will in the future he selected as the *yaya palaka* (tract supervisor) required to be appointed under the Agrarian Services Act.

THE TRAINING OF FARMERS AND FARMER REPRESENTATIVES

An important role of the IO was that of an educator and trainer. It was recognized that training of farmers and FR_B is a continuous and on-going process. Training can be broadly categorized into five types.

- 1. Informal on-the-job training of farmers and FRs in developing skills in basic communication techniques, group discussions, planning and organising farmer meetings,
- 2. Formal in-service training of FRs in subject areas such as role and functions of the FR, irrigation and water management, programming the cultivation of paddy and subsidiary food crops, etc.
- **3.** Agricultural extension activities carried out under the T&V System; particularly land preparation, nurseries, transplanting, high yielding varieties, use of insecticides and weedicides, application of fertilizer, etc.
- 4. The monthly meeting of the Distributory Channel and the Main Channel l/Area Farmer organisation.
- 5. The Main Channel or Area Councils in collaboration with the officials of Irrigation, Agriculture, and Agrarian Services Departments organized study tours to other agricultural settlements and 'research stations to examine the latter's water management and farmer organisation programmes.

Field Channel Farmer Representative and the T&V System

The T&V system is operating effectively in the Gal Oya Project area, side by side with the Farmer Organisation Programme. The Assistant Director of Agriculture, Ampara district has agreed to recognize field channel FRs as Contact Farmers under the T&V system. This proposal is still under consideration. The federation of farmer organisations at the field distributory main channel and project levels could be utilized as an effective mechanism for farmer training and extension.

A salient feature of the Gal Oya Farmer Organisation programme was the initiative and leadership taken by the FRs in agricultural extension and farmer training, under the guidance and direction of field personnel of the Departments of Irrigation, Agriculture, and Agrarian Services. A major contribution of the Farmer Organisation Programme was the close and cordial links established between these three Government agencies and the farmers.

CONCLUSIONS

This paper discussed programmes in agricultural extension and farmer training during the period prior to and after thr: T&V System, in the Mahaweli Project Area, and under the Gal Oya Water Management Project. There are some similarities and major differences which can be observed:

- □ In the T&V System, the lowest unit viz. the Contact Farmer Group, included about 60 to 100 farmers; the 'Turnout Group in the Mahaweli H System was about 12 to 20 farmers and in Gal Oya, the Field Channel Farmer Group consisted of about 10 to 15 farmers.
- □ The second level of organisation in the T&V System is the area of the (KVS) with about 500 to 800 farmers. In the Mahaweli, it was the SDAs at the hamlet level with about 100 farmers. In the Gal Oya the equivalent level is the Distributory Channel Farmer Organisation with about 15 to 100 farmers.
- □ In the T&V System, the field level worker is the KVS; in the Mahaweli, it is the Unit Manager; in Gal Oya it was the IO who was a catalyst type of change agent.
- □ The T&V System, and SDAs of the Mahaweli H System, operated within administrative boundaries; whereas in Gal Oya the Farmer Organisation Programme operated under hydrological boundaries.
- □ It is evident. that in the T&V System arid in the SDAs, it is the officials who take the initiative. In the Cal Oya Farmer Organisation Programme it is the FRs who takes the leadership, facilitated hy the IO.
- The federation of Farmer Organisations at different levels in Gal Oya greatly facilitate problem solving. In the Mahaweli there is no such federation of farmers, although there is a hierarchy of officials at the Unit, Block, and Project levels. The federation of Mahaweli Turnout leaders into a D-Channel organisation has begun only from Maha 1985.
- □ Making the field channel FRs the ex-officio Contact Farmer would greatly facilitate agricultural extension and training. The existence of a farmer organisation mechanism at the different levels, also facilitates the same tasks.
- \square The dependency of the farmer on off cials was noted in the T&V and Mahaweli areas. This should he gradually reduced. A concerted effort should he made to develop the self-confidence and self-reliance of the farmer.

The extension and farmer training programmes in Sri Lanka have undergone many changes during the *Decade of the Farmer* (1976-1985). The T&V system, in spite of many problems and short-comings has proved to be effective. The three-way dialogue between the researcher, extension worker, and the farmer should be further strengthened. A federation of farmer organisations would be a suitable mechanism for strengthening these links. The full benefits of improved irrigation, in-put supplies, agricultural credit, marketing, etc., would be possible through well planned programmes of extension and farmer training. So far water management has not been given enough emphasis in agricultural extension and farmer training, though water is becoming and important scarce resource. Therefore we should ir clude irrigation water management in the extension and farmer train ng programmes. It is good to remember that, "Professional extension, tuned to farmer needs and country capacities is a most powerful tool to attain an early impact on producitivity and farmer incomes and thereby improve the quality of life of millions of people on the land" (Benor et al. **1984).**