

STUDY OF
NATIONAL DEMONSTRATION
&
FARMERS' EDUCATION PROGRAMME

PROGRAMME EVALUATION ORGANISATION
PLANNING COMMISSION
GOVERNMENT OF INDIA
1978

REPORT OF THE EVALUATION STUDY OF NATIONAL
DEMONSTRATION & FARMERS' EDUCATION PROGRAMME

CONTENTS

	Page
Preface	(i)
Summary of Conclusions and Recommendations	(iii)
Chapter I - Introduction	1
Chapter II - Farmers' Training Programme	10
Chapter III - Charchamandals (Farmers' Discussion Groups)	32
Chapter IV - National Demonstration Programme ..	46
Chapter V - Coordination	70
Appendix - Project Team	71
Annexure Tables	73

.....

PREFACE

Realising the need for demonstrating the efficacy of the new agricultural practices based on scientific knowledge, information and skill and channelising the results of research immediately to the farmers, the Government of India launched the National Demonstration Programme in April, 1965. This was followed by the Farmers Education and Training Programme initiated by the Directorate of Extension of the Ministry of Agriculture and Irrigation in 1966-67. In 1970 the two programmes were integrated in the districts which were common to both.

At the instance of the Planning Commission the Programme Evaluation Organisation undertook an evaluation study of the National Demonstration and Farmers Education Programme in 1971-72. The Study enquired into the implementation of (i) short-term training programme for farmers and farm women, and (ii) programme for organising discussion group of farmers and farm women under the Farmers Training Programme as well as the National Demonstration Programme. Fifteen States where the Centrally sponsored programme of National Demonstration and Farmers Education had been in operation for about three years prior to the taking up of the Study, were selected.

For various administrative reasons the publication of the Report has got delayed. However, the conclusions emerging from this Study would still have relevance since the two programmes continue to form important planks in the country's overall strategy of agricultural extension in the Five Year Plan 1976-83. It is hoped that the findings of the Study would be of practical use to policy framers and implementing agencies.

ii)

The Study has been designed by the Agricultural Economics Division of the P.E.O. The data analysis and drafting of Report was undertaken by Shri S.B.Saharya, Joint Director assisted by Shri V.V.Jetley, Senior Research Officer and Shri P.N.Deb, Research Officer. The support provided by other officers of this Division, the Regional and Field units and the Computer Centre is formally acknowledged. We are grateful for the cooperation and help extended by the officials of the Ministry of Agriculture and Irrigation and the State Governments.

New Delhi
June 1978

S.P.Bagla
Joint Secretary
PROGRAMME EVALUATION ORGANISATION

SUMMARY OF CONCLUSIONS AND RECOMMENDATIONSI. Background
of the
Study

The Farmers' Education Programme includes the National Demonstration Programme and the Farmers' Training Programme. The National Demonstration (ND) Programme was launched in 1965 primarily with the aim of encouraging cultivators to adopt the latest agricultural techniques by convincingly showing to them the practicability of and benefits from adopting these. This was to be achieved by holding demonstrations in farmers' fields, conducted in intensive agriculture districts, by a team of 4 Subject Matter Specialists (SMS) under the aegis, as far as possible, of an agricultural institute such as a university, college or research station. Initiated in 1965 by the Directorate of Extension of the Central Ministry of Agriculture, the programme came under the supervision of the Indian Council of Agricultural Research (ICAR) from 1967. At the time of the Study, the programme was in operation in 100 intensive agricultural districts in the country.

2. The Directorate of Extension also launched in 1966 the Farmers' Training (FT) Programme as a scheme for training farmers in the latest techniques in agriculture in support of programmes for agricultural production like the HYV Programme. At the time of the Study the F.T. Programme, comprising both institutional and peripatetic training in agricultural and allied topics, was being conducted by 100 F.T. Centres, established under the programme, covering about as many districts throughout the country. The F.T.

Programme also included a scheme for establishing village level Farmers Discussion Groups (Charchamandals), both male and female, as forums for continuing education in agricultural and allied subjects primarily through the medium of the farm broadcasts of All India Radio. The Discussion Groups were to function under the leadership of a convenor trained for purpose under the programme.

3.- The PED had studied the Centrally sponsored programme of National Demonstration & Farmers' Education in 15 States where this had been in operation for about 3 years ending in 1971-72. During the course of the Study detailed enquiries were made from the State down to the farmer's levels in 31 districts. The Study covered questions regarding implementatic of the various components of the programme and the problems regarding organisation and coordination thereto; the reactions and attitudes of cultivators getting trained under the programme; and the extent of integration of the Farmers' Education Programme with the overall agricultural production programme.

II. Summary of (A) Farmers' Training & Demonstration Programme: Conclusions

4. The Study revealed that, judged in terms of adoption of the various improved practices taught under the programme, the impact of the Farmers' Education Programme was marginal. Out of those farmers who took training under one or the other (or both) programme(s), the addition to the number of adopters of different recommended practices varied from 7.5% to 24.5%. This might be attributed to one or more

of the following reasons:

(i) **Improper selection of trainees:** Depending on the particular recommended practice, between 35% to 55% of the trainee farmers were adopters even prior to training, and to that extent were precluded from adding to the net impact. Secondly, a few of the items of training were not relevant to some of the trainees such as on irrigation practices for farmers having inadequate or no irrigation facilities.

(ii) **Improper selection of areas:** The rationale behind selecting intensive agricultural districts, as being areas of identified potentialities, was not followed through to the lower levels in selecting areas/pockets of high potential within the district. As a result, an ideally endowed plot was found and selected for laying demonstrations, which was, however, ^atypical and hence not relevant to generally prevalent conditions in the locality. Apart from the agricultural potential of the area, the need for training or otherwise was not always considered; demonstrations were held in areas where the only hinderance to extension of recommended practices, like multiple cropping and fertiliser application was the lack of facilities (irrigation credit, inputs) and not a lack of knowhow or motivation.

(iii) **Bias in selection of demonstration plot holders:** There was a bias in favour of bigger farmers in selecting them for laying demonstration plots, which defeated the main purpose of demonstrating the applicability of the recommended practices by cultivators, irrespective of the size and affluence of the farmer.

5. Quality of training The following main shortcomings were observed during the field study:

- (a) According to the trainee farmers, the training was much too theoretical in nature and not adequately supported by practical demonstrations and audio-visual aids; the language was also often reported to be too technical.
- (b) The lack of full complement of staff and/or adequately qualified, experienced and trained staff under both the programmes (particularly female instructors in the F.T. Programme) had a beneficial effect on the quality of training; this was compounded by the problem of frequent transfers in some cases.
- (c) The occasion of a contact between trainers and trainees was not fully exploited for giving comprehensive training in all the recommended practices - particularly during the National Demonstration field-day training.
- (d) The lack of coordination amongst staff of the two Programmes in a number of districts was also responsible for a neglect of farmers' training aspect of the N.D. Programme.
- (e) Pre-occupation with the achievement of merely quantitative targets, in terms of training camps, trainees, demonstrations, etc. and under the N.D. Programme of achieving set yield targets at the demonstration plots, was sometimes at the cost of the quality of training. Intensive use of the National Demonstrations as a medium of training was generally not made.

6. Lack of follow-up Neither as an integral part of the F.E. Programme nor in the course of the normal working of agricultural extension agencies was there any worthwhile follow-up measure taken after the training programme. Hence trained farmers were unable to adopt such recommended practices as soil testing for want of guidance and facilities.

7. Lack of supervision and guidance. Implementation of both the F.T. Programme and the R.D. Programme were generally left to the field staff (of the F.T. centres and the ~~SMS~~ teams) without much supervision and guidance from above. Neither the coordination committees set up for the purpose nor the higher level officers responsible for the programmes were closely involved at the operational level.

(B) Discussion Groups

8. The Discussion Groups were established to provide a two-way communication channel between the farming community and specialists on one hand and Radio and Discussion Groups on the other, through planned farm broadcast answers to farmers' questions. These Discussion Groups were provided with transistor radio sets at subsidised rates. Despite large numbers of Discussion Groups, mostly male, being established, it was found that in most of the districts, -this part of the F.E. Programme was, by and large, a failure; the majority being either either dormant, defunct or only existent on paper. The main reasons observed were as below:

(a) Mostly persons without any serious ~~intent~~ had organised Discussion Groups with the sole objective to -acquire the transistorised radio set at a subsidised rate under the scheme.

(b) F.T. centres had organised Discussion Groups to achieve targets, without first being able to ensure the necessary enthusiasm and interest amongst the members and convenors to sustain their functioning.

(c) F.T. Centre staff had not taken an active part in the functioning of the Discussion Groups, so as to supervise, guide and activate them, owing to the large numbers established and the other preoccupations of the staff.

(d) There was lack of coordination between establishment of Discussion Groups and training of convenors by the F.T. Centres.

III. Suggested
Lines of
Action

9. The above assessment suggests that action to improve the operation of the Farmers' Education Programme may be taken on the following lines:

(i) The ever-~~existing~~ need is for a more conscious awareness, at all levels of the implementing agencies, that the National Demonstration Programme and Farmers' Training Programme, as parts of the F.E. Programme, are integral to the overall agricultural production programme, and that the mere achievement of physical targets in terms of numbers of training camps/courses, trainees, demonstrations, and yield targets, is not an end in itself. Since the basic objective of the F.T. Programme is to raise the level of agricultural production in the area of its operation, it would be prudent to concentrate on those areas pockets or ~~within~~ the district which had been identified to be having the maximum potential for development. This is -likely to yield better returns than widespread efforts.

(ii) The supervisory level officials of the implementing agencies (State Government departments and agricultural institutes) should be more closely and directly involved in the implementation of the programme. The responsibility for implementation need not be left, in the main, to the

field level staff. This would imply not only having sufficiently senior and experienced officials at this level but, more importantly, ensuring that these officials devote the necessary time to undertake frequent tours for first-hand supervision of the field staff.

(iii) Concomitantly, the field staff must be ensured both in the requisite numbers and of the requisite quality in terms of aptitude, experience and training. A reasonable tenure at a posting must also be ensured to give the staff the chance to familiarise themselves with the area and its needs and to cater specifically to them.

(iv) There should be effective coordination between the staff of the H.F. Programme and the F.T. Programme. Keeping in view the complementarity of the two, it might be better to place both the teams under a common controlling authority in the field (district).

(v) There is greater need for coordination between the F.E. Programme and the usual agricultural extension agencies of the district (such as the District Agricultural Officer and Development Blocks), so that systematic and concerted follow-up action is taken after the training programmes to ensure actual adoption by cultivators. It must be impressed upon the agricultural extension staff that the training and demonstration programmes are supplementary to their efforts towards a common goal. Follow-up action by the extension staff will not involve any additional work, but merely channelising their efforts in a more purposeful way by concentrating them on the trained farmers who can be expected to be more responsive.

(x)

(vi) As stated earlier, within the selected districts, selection of areas for laying demonstrations has to be more purposive, so that areas/pockets having the potential for adoption of recommended practices are deliberately covered. As a corollary, it follows that the recommended practices must be tailored to suit the conditions generally prevalent in the area. This is particularly true for recommending crop rotations, as these must satisfy local consumer and market preferences.

(vii) The implementing agencies have to be equally discriminating in ensuring that the syllabus of the training course and the trainee farmers are properly matched. An F.T. Centre will have to devise different syllabi to meet the varying needs of the different types of cultivators it caters to.

(viii) Apart from ensuring suitable staff and the appropriate syllabi, the method of training must rely more on practical demonstrations and use of audio-visual teaching aids. Since the educational level of the trainee farmers can not be changed in the short-run, the training methods will have to be adopted to suit the existing conditions.

(ix) Coordination Committees at the State and district levels will have to be activated. Where both the N.D. and F.T. Programmes are in operation, it would be better to constitute a single coordination committee for both.

The Committees should be responsible for coordinating not only the working of the two programmes, but between these

two and the agricultural extension agencies of the State as well. Whereas a high level Coordination Committee would have the necessary authority to enforce compliance with the decision and directives, it would be by its very nature not be in a position to meet frequently to consider incidental problems of implementation. It would, therefore, be better to have a smaller and more accessible standing sub-committee of the Coordination Committee to decide on such matters, particularly on technical aspects, viz. selection of demonstration sites, approval of recommended crop rotations, details of -training programmes, etc.

(x) Since most of the Discussion Groups could not play fully the role expected of them, it might be worthwhile to discontinue their establishment as officially sponsored and subsidised organisations. Instead, they may be encouraged to function as purely voluntary bodies (duly recognised by Government) to which the F.T. Centres and All India Radio should continue to provide technical support, as at present. The conditions under which such Discussion Groups should be given official recognition, and function, are suggested below:

- (a) Only Discussion Groups with trained convenors should be recognised.
- (b) Convenors should be accepted for the convenors' training course after ascertaining their capabilities, particularly in terms of organising ability and literacy. The convenors' training should include a general course on agricultural methods like the short-term training for farmers under the F.T. Programme.

- (c) Subsidy on radio receivers as incentives to convenors should be dispensed with. Instead, a part of the prize money for the best Discussion Group might be earmarked for the convenor as an incentive.
- (d) Free farm literature and stationery should be supplied only on specific requests by Discussion Groups on a year to year basis.

Chapter I

INTRODUCTION

Background of the Programme

The National Demonstration Programme was initially envisaged by the Directorate of Extension, Ministry of Agriculture, Government of India in 1965 with the introduction of the High Yielding Varieties (HYV) Programme, as a means of demonstrating in the actual farmers' fields the applicability of the latest technology in agriculture. These demonstrations were expected to serve as a direct link between agricultural research and the farmers. The Directorate of Extension also initiated in 1966 a Farmers' Training Programme for imparting to farmers the necessary technical knowledge and skills for adopting improved agricultural practices through institutional and peripatetic training and demonstrations in farmers' fields. In 1967, the responsibility for running the National Demonstration Programme shifted from the Directorate of Extension to the Indian Council of Agricultural Research (ICAR), which introduced a time dimension in the Programme. Henceforth, the aim was maximisation of output per unit area per time, which was sought to be achieved through multiple cropping of high yielding, short duration crops.

1.2 Since National Demonstration was considered to be an important instrument in the training of farmers, it was decided to integrate the Farmers' Training Programme with National Demonstration Programme from April, 1970 by conducting farmers' training around the demonstration plots. For this purpose the coordinated Project on National Demonstration was drawn up.

1.3 National Demonstration Programme Under the aegis of the ICAR, the National Demonstration Programme was to be implemented so far as possible by research institutions like agricultural universities and research stations. During the Fourth Plan period 100 'intensive agriculture' districts were to be covered annually by 15 (later raised to 25) demonstrations each, and a veritable number of 'non-intensive' districts where fewer demonstrations were to be laid. In each 'Intensive' district a team of four Subject Matter Specialists (SMS) - in agronomy, soil chemistry, plant protection and agricultural engineering - was to be provided by the implementing agency for laying the demonstrations. In 'non-intensive' districts no SMS teams were to be provided: the demonstrations were to be laid by the regular staff of the research institutions responsible for each district. The Fourth Plan expenditure on National Demonstration Programme was Rs.1.80 crores.

1.4 Farmers' Training Programme: The Farmers' Training (FT) Programme, controlled by the Directorate of Extension was to be executed at the district level through Farmers' Training Centres, the majority of which were establishments of the Agriculture Departments of concerned States. The Programme consisted of (a) Short-term training courses for farmers - separately for men and women, conducted as institutional training usually at the F.T. Centres; (b) Young Farmers' training (discontinued after 1970-71); (c) Peripatetic training usually supported by laying of demonstration plots; (d) Organising Charchamandals (Farmers' Discussion Groups) separately for men and women. For this purpose each F.T. Centre was to be provided with a team of functionaries headed by a

District Training Officer (DTO), and including a Radio Contact Officer (RCO), two Training Officers (TO) - male and female, and two Demonstrators - male and female, apart from other supporting staff.

1.5 During the Fourth Plan 100 F.T. Centres were established to cover almost as many districts (some F.T. Centres were not strictly confined to a single district of operation). The Fourth Plan expenditure on the Programme was Rs.3.65 crores.

1.6 During the Fifth Plan the ICAR reduced the coverage under the National Demonstration Programme to 50 'intensive' districts, 36 being districts which had been covered in the previous Plan period and 14 which were newly taken up. At the same time the ICAR started a scheme of Operational Research Projects. The combined outlay for the two schemes in the Fifth Plan period was of the order of 5.02 crores.

1.7 Under Farmers' Training Programme the number of F.T. Centres in the country was sought to be raised by 50 (to 150) during the Fifth Plan, for which a provision of Rs.8.00 crores had been made. Upto the end of 1976-77, though approval for setting up 25 new F.T. Centres had been given, none had been actually set up. The approved (cumulative) target for 1977-78 was 39 F.T. Centres.

Objectives of the Study:

1.8 In view of the importance of the programme, the Planning Commission desired the Programme Evaluation Organisation to undertake an evaluation study of the National Demonstration and Farmers' education Programme. The Study enquired into the implementation of (i) the short-term training programme for

farmers and farm women, and (ii) programme for organising discussion -groups of farmers and farm women, under the Farmers' Training Programme, as well as the National Demonstration Programme.

The objectives of the Study were:

- (i) to examine the implementation of the various components of the programme and the problems regarding organisation and coordination thereto;
- (ii) to ascertain the reactions and attitudes of cultivators getting trained under the programme; and
- (iii) to see how far the Farmers' Education Programme was integrated with the overall agricultural production programme.

Methodology and Sampling Design:

1.9 Coverage: Fifteen States where the Centrally sponsored programme of National Demonstration and Farmers' Education Programme had been in operation for about three years prior to the taking up of the Study, i.e. three years ending in 1971-72 were covered by it.

Sampling Design: The sampling design for the Study was a multi-stage sampling design with States as strata. The sampling stages were as under:

(i) First stage sampling units: Within the selected States, districts where the Centrally sponsored Farmers' Training Programme conducted by concerned States Departments (but not covered simultaneously by similar programme of agricultural university in the State) and also covered under the National Demonstration Programme, for about three years prior to 1971-72, formed the first stage sampling units. One to three districts were selected from each State depending on the number of farmers trained under the Farmers' Training Programme, the year of inception of training programme in the district,

one regional variations (from the agricultural point of view) within a State and the PED staff resources available in the field for conducting the Study. In all, the Study covered 31 districts.

(ii) Second stage sampling units: Within the selected district, villages covered by any of the following components of the programmes during the period 1968-69 to 1970-71 formed the second stage sampling units:

- (a) National Demonstration Programme i.e. villages from which persons attended the field-day training camp at a national demonstration;
- (b) Short-term training for farmers and farm women, i.e. villages from which persons were deputed to attend these courses.
- (c) Farmers' Discussion Groups with trained Convenors, i.e. villages in which discussion groups were organised and from which convenors attended the relevant training course, within the stipulated period.

1.10 Lists of such villages were collected data from the district level officers of the concerned implementing agencies. On the basis of the above information the villages were categorised according to their having been covered by one or more of the three components of the programme. The seven possible categories were:

- N - Villages covered by N.D. Programme only;
- S - Villages covered by short-term training only;
- D - Villages covered by Discussion Group only;
- NS - Villages covered by N.D. Programme and short-term training;
- ND - Villages covered by N.D. Programme and Discussion Group;
- SD - Villages covered by short-term training and Discussion Groups;
- NSD - Villages covered by all three components of the programme.

1.11 In all, seven categories of villages were available in a district, one village of each category was selected at random, giving four villages covered by each component of the programme ~~simply~~ or in combination with some other components. In case all categories of villages were not present in a selected district, then:

- (i) one village for each of the available categories in the district were selected at random;
- (ii) An additional village or villages were selected at random from such of the available categories as would ensure that each component of the programme (N.S.D.) was represented in the district at least twice.

1.12 Third stage sampling units: Within selected villages, households having beneficiaries of any type of training or membership of discussion group formed the third stage sampling units. The beneficiary households were categorised as for the selection of villages and each category of households listed in descending order of size of holdings. A sample of 14 households was selected at random from each selected village (or less, if the total number of beneficiary was less than 14), such that the number of households selected from each category was proportional to the total number of households of that category in the village. However, while allocating sample sizes proportionally to the various categories, it was to be ensured that at least two households from each category were selected.

1.13 All beneficiaries in the selected households were canvassed. In addition, the trained convenor of the discussion group (both male and female if there were separate groups) in the village was purposively canvassed if the household was not otherwise coming in the sample.

1.14 Control: Three households from the selected who had not participated at any time since the inception of the programmes, were selected to serve as control. After arranging all the non-beneficiary households in a sample village in the descending order of their land holdings, the list was divided in three equal strata and the middle household of each stratum (for odd serial numbered household, in case of even numbered stratum) was selected.

1.15 Thus, the sampling design generated a total of 1334 beneficiary households and 532 non-participating households from 133 selected villages in 31 districts under study. This sample was from a population of 2667 beneficiary households and 26,151 non-participating households. The Statewise number of districts, villages, participants and non-participants selected for the Study were given in Annexure I.

Instruments of Observation:

1.16 State and district level notes were prepared for each selected State/District on the basis of discussions with various agencies involved in the programmes as well as on the personal observations and assessment of PEO field unit officials. These notes covered both the policy and implementation aspects of the programmes.

1.17 A village schedule was canvassed in each selected village to gather information on the agro-economic background of the village as well as overall coverage of the village by different components of the programme.

1.18 To assess the impact of the programmes on the beneficiaries, a household schedule was canvassed to each selected household. Apart from the socio-economic background of the household, the schedule recorded the components of the programme from which it benefited and the reactions, comments and suggestions of the beneficiaries on the programmes. A portion of the schedule was also canvassed to the selected non-participants.

1.19 A separate schedule was canvassed to the farmers on whose plots National Demonstrations were laid for collecting information on demonstrations, their results and the training given alongside.

1.20 The field observations at the various levels were made in the last quarter of 1972.

Presentation of the Findings

1.21 Chapter II deals with the different aspects of the Farmers Training Programme. Both institutional and peripatetic training has been examined in this chapter. Chapter III deals with Discussion Groups (Charcha Mandal) while National Demonstration Programme is discussed in Chapter IV. Chapter V deals with the problems of coordination, between the various components of the farmers' education programme as well as between these and the usual agricultural extension agencies.

Statewise Number of Districts, Villages, Participants
and Non-participants

State	No. of districts	No. of villages	No. of partici- pants	No. of Non- participants
1	2	3	4	5
1. Andhra Pradesh	3	15	155	44
2. Assam	1	6	62	18
3. Bihar	3	17	174	51
4. Gujarat	2	13	124	39
5. Haryana	1	7	99	21
6. Kerala	2	11	63	33
7. Madhya Pradesh	2	12	100	36
8. Maharashtra	3	17	189	51
9. Karnataka	3	16	166	47
10. Orissa	2	14	139	42
11. Punjab	1	5	52	15
12. Rajasthan	2	8	84	24
13. Tamil Nadu	2	10	89	30
14. Uttar Pradesh	3	21	241	63
15. West Bengal	1	6	54	18
Total:	31	178	1834	532

Chapter II

FARMERS' TRAINING PROGRAMME

The Scheme:

The coverage of this Study was confined to those districts in which the Farmers' Training Programme was being implemented by the States' Agriculture Departments (except in U.P. where the Department of Planning & Community Development was responsible) through their Farmers' Training Centres. Moreover, the scope of the Study was limited to the short-term training programme for farmers and farm women. The F.T. Centres were expected to organise training courses of 5 to 14 days, separately for farm men and farm women, at the rate of 10 courses each annually and with an average participation of 25 trainees per course. The training for farm men was mostly meant to cover the package of recommended practices for particular crop production programmes, but some of the courses were also to be devoted to special subjects (such as maintenance of farm machinery) to cater to particular needs. The training for farm women was to cater to their particular areas of interest, such as family nutrition, feeding and care of milch cattle, grain storage, seed selection, identification and handling of chemical fertilisers and pesticides and cooking of high yielding variety grains. These short-term courses, both for men and women, were expected to be conducted as institutional training at the F.T. Centres but there was no objection to holding them at other places convenient to the trainees where requisite facilities were available (e.g. Block headquarters, government farms, etc.).

Organisation and Administration:

2.2 The organisational and administrative set up for implementing the F.T. Programme was enquired into during the Study. It was observed that at the State level the programme was the responsibility of a senior officer of the Agricultural Department, usually an Additional Director or Joint Director of Agriculture but occasionally the Director of Agriculture himself. The State level officer was not only looking after the F.T. Programme but had primary responsibility for Training Extension or Research in the State as a whole. In some of the States (e.g. Bihar, Gujarat, Haryana, Maharashtra, M.P. and Punjab), the senior officer was assisted at the State headquarters level /by a Deputy Director or Technical Officer, but not necessarily exclusively, in administering the programme. Some States (e.g. Bihar, M.P., Tamil Nadu, West Bengal) had a second tier of regional or zonal officers who were also responsible for supervising the implementation of the programme. In the rest of the States the District Training Officers (sometimes designated otherwise) were directly responsible to the senior State level officers responsible for the programme, except in U.P. where the District Training Officer (DTO) was under the control of the Principal of Extension Training Centre (where the F.T. Centre was located).

2.3 With the above organisational set-up, it was found that control over and supervision of the work of the DTOs was generally not close and effective. Field inspections by the senior officers was generally not done, or done only sporadically, so that in such situation the implementation of the programme depended entirely on the initiative and capability of the DTOs. However, close and

effective supervision of the F.T. Centre staff was reported from the districts of Bulsar (Gujarat), Raipur (M.P.), Raichur (Karnataka) and Aurangabad (Maharashtra). The wide ranging and crucial functions and responsibilities envisaged for the D.T.O., the key figure in implementation of the programme, are listed below:

- (i) Chief Coordinator of the activities of the various agencies involved in the F.T. Programme. These include the district extension functionaries, the N.D. Programme team of SMSs, other subject matter specialists at various institutions, the AIR officials and non-governmental organisations;
- (ii) Convenor of the District Coordination Committee;
- (iii) After consultation with the officer in charge of crop production in the district and State headquarters officials, he assumes responsibility for directing the activities of the Radio Contact Officer and the Peripatetic Training Team in supporting the district crop production programme;
- (iv) Planning and implementation of the special training courses for farmers, farm women and convenors of discussion groups;
- (v) Conducting Farmers' study tours;
- (vi) Developing suitable criteria for assessing the performance of farmers' discussion groups and conducting a continuous assessment of these activities;
- (vii) Planning and organising training of trainers;

(viii) Maintenance of correspondence through circulars, bulletins and letters, with those who participate in national demonstrations and those who are interested in specific agricultural development programmes, such as the H.Y.V. Programme being implemented in the district. Special attention has to be given to convenors of discussion groups.

2.4 To shoulder these responsibilities successfully, the post of DTO has to be filled by an officer of sufficiently high level. He should have not only a sound technical background but, equally importantly, field experience, administrative capacity and initiative and drive. During the Study it was found ~~uniformly~~ in all the States that the posts of DTO were being filled by well experienced officers of their agriculture departments who could bring their considerable field experience to bear on the work. Most of the DTOs in the selected districts were graduates in agricultural science. Six of them had post-graduate qualifications in agricultural science and one had a Ph.D degree as well, though there was also a case (in Gwalior district of Madhya Pradesh) of an I.Sc (Agri) working as a DTO. From the point of view of special training for equipping the incumbent for the post, the position was less uniform. Almost all the DTOs during their years of service in different capacities in their departments had undergone training of one kind or other. Most commonly, the training had been in extension methods which was relevant to their current assignment, but there were also some cases of training in subjects of no direct relevance (such as plant protection, soil conservation, etc.) having been taken.

2.5 Despite the fact that experienced, qualified and trained persons were manning the posts of DTO in the selected districts, the field impression was fairly uniform from most of the States that the incumbents were not hand-picked for the posts with an eye on their qualifications, capabilities, inclination and aptitude. The DTO was usually an officer of the seniority of a district agricultural officer and more often than not had held such a post in the past, but this did not ensure the aptitude required for a training job. On the contrary, a number of DTOs in the selected districts expressed the view that their current assignments were inferior to that of the District Agricultural Officer who had control over a far bigger organisation. Such DTOs were obviously dissatisfied and unwilling incumbents of their posts, a situation which naturally had an adverse effect on the implementation of the programme in the best possible manner. Added to this was the problem of frequent transfer of DTOs, as observed in Kamrup (Assam), Darbhanga (Bihar), Trichur (Kerala), Gwalior (M.P.) and Sambalpur (Orissa). Where the success of the training programme depends so largely on an intimate knowledge of the conditions in the area and its requirements, the effect of frequent transfers on the quality of implementation could easily be imagined. Though no incumbent would be expected to be placed permanently on the staff of the F.T. Centre, the need for a rational approach to transfer and posting of such posts, so as to ensure a fruitful continuity, cannot be gainsaid.

2.6 As indicated in Chapter I, the District Training Officer was to be assisted by his team comprising a Radio Contact Officer (RCO), two Training Officers (TO) - male and female, and two demonstrators - male and female, to carry out the F.T. Programme.

The Training Officer and Demonstrators constituted the Peripatetic Training Team which, under the guidance of the DFO, was primarily responsible for lending support to field training activities of the F.T. Centre. However, the peripatetic team was also expected to participate in institutional training conducted at the F.T. Centre or some other convenient location. The RFO was primarily responsible for running the scheme of Charchamandals (Discussion Groups) by liaising with All India Radio for radio support to these groups.

2.7 At the time of the Study (1971-72) the position regarding the filling up of these technical posts varied from State to State. The situation prevailing in the selected districts may be seen in Table below:

Staff Position at F.T. Centres of selected Districts (1971-72)

State	No. of districts	Staff in position (Nos.)					
		Distri- ct Training Officer	Radio Contact Officer	Trai- ning Officer (M)	Trai- ning Officer (F)	Demon- strator (M)	Demon- strator (F)
1	2	3	4	5	6	7	8
1. Andhra Pradesh	3	3	1	3	-	3	3
2. Assam	1	1	1	1	-	1	-
3. Bihar	3	3	2	2	-	2	-
4. Gujarat	2	2	1	1	-	1	-
5. Haryana	1	1	1	1	-	1	1
6. Karnataka	3	3	2	3	1	3	1
7. Kerala	2	2	1	1	2	2	2
8. Madhya Pradesh	2*	2	2	2	2	4@	-
9. Maharashtra	3	3	3	3	-	3	-
10. Orissa	2	2	2	2	2	2	2
11. Punjab	1	1	1	1	1	2@	-
12. Rajasthan	2	2	1	2	-	2	2
13. Tamil Nadu	2*	2	2	2	2	2	2
14. U.P.	3	3	3	3	3	3	2
15. West Bengal	1	1	-	1	-	-	-
Total:	31	31	23	28	13	31	15

* The posts are designated differently and have been shown in the equivalent posts.

@ Demonstrators (male) were appointed against posts of Demonstrator (Female).

The biggest shortfall in the filling up of posts was for those of the Training Officer (Female) and Demonstrator (Female). It was generally reported that suitable persons were not available for these posts; sometimes the persons posted were also not willing to accept the posts. The other post which was seen to have been left unfilled in a number of cases was that of the RCO. It was also found that some posts, in other than the selected districts, had not even been sanctioned, for instance, of Training Officers in Rajasthan, Kerala, Andhra Pradesh, Maharashtra and U.P. and of Radio Contact Officers in West Bengal, U.P. and Maharashtra.

2.8 Apart from the lack of numbers observed in the female training staff of F.T. Centres, the suitability of a number of incumbents in these posts in the selected districts was questionable. Arts and Science graduates, sometimes with teaching degrees/diplomas, were posted as Training Officers (Female) at Sambalpur (Orissa), Gwalior (M.P.), Raichur (Karnataka), Amritsar (Punjab) and Coimbatore (Tamil Nadu); the incumbent in Lucknow (U.P.) was only Higher Secondary passed though at the same time there were a few with post-graduate degrees and a number of agriculture graduates. The nature of the training prescribed for farm women would suggest that the desirable qualification should be a degree in Home Science with additional training to cover the agricultural portion.

2.9 In terms of qualification, the position with regard to the posts of Radio Contact Officer and Training Officer (Male) was generally satisfactory. Almost all the incumbents in the selected districts were either graduates or post-graduates in

agriculture science. With regard to special training for the job, it was found that there were many who had not undergone any. By and large, the posts were being manned by experienced officers of the departments. From a few districts frequent transfers of officers were reported which were not in the interest of the programme, although such transfers away from the F.T. Centres were not only welcomed by the concerned officers but actively sought, since postings at these centres were unpopular.

2.10 In any training programme the personnel factor is vitally important. If there is any shortcoming detected in this aspect one need hardly probe further for causes of success or failure of the programme. The State Governments might, therefore, ensure the adequacy, quality and continuity of the staff engaged in the F.T. Programme in order to derive the full benefits from it. Any lack of quality at the implementation level has to be compensated for by more intense supervision from the higher level.

Policy of Coverage:

2.11 The main consideration for selecting districts for coverage under IAAP, IADP and other intensive agricultural development programmes as also the HYV programme, had been the potential for agricultural development of these districts, especially considering the existence of irrigation facilities and the incidence of rainfall. The F.T. Programme was specifically designed to provide training support to these intensive agricultural development programmes in such districts. For this, it was necessary to have an institution base in the district from which the F.T. Centre could operate and also derive support in terms of men and materials. Also it was to be suitably located for radio coverage to cater to the Discussion Groups.

2.12 The Study revealed that within the districts no conscious efforts seemed to have been made to locate areas or pockets with potential for development and to cover these in a systematic manner. The selection of trainees for the short-term courses for farmers and farm women had usually been left to the local extension agency, the Development Block, and the guidelines for selection, where given by the F.T. Centre, had usually dealt only with the suitability of the individual trainee with regard to literacy, outlook towards adoption of improved technology (progressive farmers), size of holding (small or big farmers) and proportion irrigated, age, membership of discussion groups, etc. Generally, it was observed that the Development Block, while recommending the farmers for training, aimed at achieving a spatially equitable coverage of their areas. Thus in spatial terms, the coverage under short-term training was extensive and non-selective, sometimes resulting in a thin coverage of the district.

2.13 Since the basic objective of the F.T. Programme is to raise the level of agricultural production in the area of its operation, it might be judicious for the F.T. Centres to concentrate on those pockets or areas within the district which had been identified to be having the maximum potential for development. A concentrated dose of training and persuasion in a limited area at a time should yield better returns than scattered and wide-spread efforts. The logic of results cannot be denied; once an area sees the results of successful adoption of the improved techniques, not only the trained farmers who have been persuaded to try out recommendations

in practice but others in the area as well are bound to be convinced. Isolated instances of farmers who might have successfully applied the improved techniques are not likely to have an appreciable demonstration effect on the neighbourhood. The follow-up measures required after training would be far easier to adopt in a compact block of trained farmers in a given area than if the same farmers were widely scattered.

2.14 With regard to the selection of farmers for the short-term courses, in a number of districts, instances were observed of the selected farmers not meeting the requirements of individual suitability. Illiterate farmers (West Godavari, Raipur and Aurangabad districts), farmers not capable of adopting the recommended practices owing to absence of irrigation facilities or having very small holdings (Hyderabad, Rohtak, Gwalior and Coorg districts) and sometimes even those basically not interested in the training, such as unemployed youths (Champaran district) and students on vacation (Kamrup district) were seen to have been selected. Such instances of selection of unsuitable farmers occurred where either the Development Blocks were not aware of the suitability criteria or the Development Blocks and/or F.T. Centres had somehow to meet set physical targets of trainees and, therefore, admitted all and sundry to the courses. To this extent the efforts of the F.T. Centres might be considered to have been unfruitful.

Short-term Training for Farmers and Farm Women:

2.15 Beneficiaries An analysis of the households benefiting from short-term training for farmers and farm women shows that the relatively larger households had benefited proportionately more than the smaller ones as may be seen from the Table below: (The

sampling procedure for selecting the non-participant households justifies their being considered as representative of the overall size-wise distribution of households in the selected villages).

Short-term Training for Farmers

Distribution of ST Training Beneficiaries and Non-participants by size of Households

Size Type of Holding	S.T. Training				Non-participant	
	Households		Trainees		Households	
	No.	%age of total households	No.	%age of total trainees	No.	%age of total households
1	2	3	4	5	6	7
Small	135	40.5	152	40.1	305	57.3
Medium	152	45.6	169	44.6	199	37.4
Large	46	13.8	58	15.3	28	5.3
Total	333	100.0	379	100.0	532	100.0

NB: Small Holding - Less than 2 hectares.
 Medium Holding - Two to less than 8 hectares.
 Large Holding - Eight hectares and above.

Thus, whereas 57.3% of the households in the selected villages belong to the small size group, the percentage of beneficiary households having small holdings was only 40.5. Proportionately, the largest holding size group of households had gained maximum advantage from this training programme. Even the medium holding size group households had taken more than proportionate advantage of the programme.

2.16 There were no deliberate instructions to favour households with larger holdings in the matter of selecting farmers for the short-term training courses; on the contrary, if any instructions were issued at all, regarding considerations of holdings size in selection, then the bias was deliberately to be in favour of the small farmer; or at best to give equal representation to small, medium and large farmers (Andhra Pradesh). But in selecting the farmers for the short-term training course, the Block Agency (normally given the responsibility for selection) tried to satisfy certain other conditions which in effect resulted in a bias towards selection of the bigger farmers. The Block authorities, for instance, usually tried to select "progressive" farmers for the training, who would have some interest in the adoption of the improved practices. The progressive farmer was usually the one who had already adopted at least some of the improved practices, and more often than not this was true of the bigger farmers in the area. Similarly, the desirability of a certain standard of literacy and a preference for members of discussion groups also tended to favour the selection of the bigger farmers. Apart from such considerations, cases of selection on purely extraneous factors were not altogether rare.

2.17 Regarding the distribution of the short-term trainees between "predominantly tenants" and "predominantly owners", it may be seen in Table below that in proportional terms the latter were marginally more represented in the training courses than the former ^{1/}:

^{1/} The use of the sample of non-participant households as being representative of population in this regard implicitly assumes that the distribution of "owners" and "tenants" is independent of size of holdings.

Short-term Training for Farmers

Distribution of S.T. Training Beneficiaries by Tenancy/
Ownership Status

Type of Household	Tenancy Status				Total
	Tenants		Owners		
	Nos.	Percentage	Nos.	Percentage	
1	2	3	4	5	5
Beneficiary Households	19	5.8	314	94.2	333
Non-participant Households	39	7.3	493	92.7	532

NE: Percentages as of row totals.

2.18 Duration: The short-term institutional training courses were envisaged as special courses for particular topics to be run for 5 to 14 days, according to requirements, at the F.T.Centres. Realising the difficulty for a practising farmer to be away from his farm for a considerable length of time, the Directorate of Extension had suggested that the courses should be kept specific (to limited subjects) and for as short a period as practicable. The duration of attendance for the course reported most frequently by the selected participants was 3 to 5 days (57.8%), followed by 6 to 10 days (29.5%). In some States, like Orissa, 1-2 days special courses were also organised by the F.T.Centres. More than half of the respondents (56.2%) expressed their views on the duration of the course, and of these as large as 82.2% suggested that the duration should be increased. Only 3.7% suggested a reduction in duration. This would suggest that the trainees found the training useful but would prefer it in easier doses.

2.23 Timing The distribution of time of holding these courses and the preferred time suggested by respondents, in relation to the agricultural calendar of operations was studied. It is noted that although the majority of respondents had reported training during the relatively free "standing crop stage" and "post harvest period" (18.7%), a significant number of trainees also reported training being held at the agriculturally busy "sowing period" (13.7%) and "harvesting period" (10.3%). Of the total 379 trainees interviewed, 251 (66.2%) had suggestions to offer regarding the suitable time for training. As may be expected, the majority preferred the slack periods of "pre-sowing" (54.6%), "post-harvest" (17.1%) and "standing crop" (16.3%) stages. However, 20% of the respondents also suggested the "sowing/transplantation" stage. This shows that no practising farmer could afford to be away from his fields during the agriculturally busy periods unless he had sufficient spare hands (paid or family) with him. Obviously, the F.T. Centres should run the institutional training courses during the slack seasons. During the busy seasons only field training, at demonstration and other plots, should be conducted by the F.T. Centres with the peripatetic Teams.

2.24 Methods On being asked the principal methods of training used in the short-term training courses, "lectures" was mentioned most often for all the eight different items of training. This along with the "black-board" accounted for more than 60% of the responses, indicating the predominantly "classroom" approach to the training, as seen in Table below:

Short-Term Training for Farmers

Distribution by Principal Methods of Training Used

Item of Training	Total	Methods of Training					
		Num- 'ber 'repor- 'ting	Demons- 'trations/ 'field 'training	Flm 'shows/ 'slides	'Charts/ 'Maps	'Black- 'Boards	'Lectures
1	2	3	4	5	6	7	8
1. Multiple Cropping	324	44 (13.5)	5 (1.5)	37 (11.4)	85 (26.5)	152 (46.9)	-
2. Seed Sowing	348	59 (17.0)	9 (2.9)	57 (16.4)	92 (26.4)	125 (35.9)	6 (1.7)
3. Fertiliser adoption	349	55 (15.8)	10 (2.9)	40 (11.5)	106 (30.4)	137 (39.3)	1 (0.3)
4. P.P. Measures	349	69 (19.8)	21 (6.0)	43 (12.3)	78 (22.3)	137 (39.3)	1 (0.3)
5. Irrigation facility	313	34 (10.9)	10 (3.2)	11 (3.5)	53 (16.8)	202 (64.5)	3 (1.0)
6. Soil Management	288	52 (18.1)	1 (0.3)	6 (2.1)	35 (12.2)	193 (67.0)	1 (0.3)
7. Farm Mechanisation	306	78 (25.5)	4 (1.3)	15 (4.9)	32 (10.5)	158 (51.6)	19 (6.2)
8. Handling/Storage of inputs	289	31 (10.7)	7 (2.4)	15 (5.2)	24 (8.3)	211 (73.0)	1 (0.3)

NB: Figures in brackets are percentages as of Col.2.

2.21 Along with the question on the methods of training used, the farmer trainees were also asked if they had faced any problems of understanding. The proportion of trainees reporting difficulties in understanding the various items of training was usually low (4% to 13%) except for training in 'fertiliser adoption' and 'plant protection measures'. The general complaint among these few was that the language was too technical and that the training

was not sufficiently practical-oriented. Mainly their suggestion was that the training should be made practical-oriented and supported by demonstrations and audio-visual aids. It is obvious that the training programme and methods should concentrate as far as possible on equipping the farmer with a set of practical instructions relevant to the recommended practices taught and a set of prescriptions for the sort of problems he is likely to encounter.

General and Specialised Training

2.22 As conceived by the Directorate of Extension, the F.T. Programme should provide only a specialised training courses in particular subjects as institutional training to meet the specific need for such training of the area. The generalised training, for say, cultivation of High Yielding Varieties, should be conducted by the Peripatetic Team at different places so that the training is taken to the farmer, and not the other way round. Hence for the institutional part of the training, the courses to be run should depend on the actual demand for them, which has to be ascertained by the F.T. Centre in advance.

2.23 The Study has, however, revealed that in many of the F.T. Centres, generalised courses on cultivation of HYV crops or omnibus courses covering all aspects of improved agricultural practices were being run as institutional courses. Being general courses, no special instructions were issued to the Block agencies, (usually) responsible for selecting the trainee farmers, in making the selections. The result was that the batches of trainees often proved to be heterogeneous in composition; farmers with dry and irrigated holdings; small farmers and big farmers; farmers with interests in different crops; and so on. This resulted in waste of efforts in case of farmers who had undergone training in items of no relevance to their

households or farms (See Annexure Table 1). Ideally, the F.T. Centres should assess the specific problems and needs of different types of farmers in their areas and tailor their courses to suit these requirements. Thus, only those farmers might be selected for whom the specifically tailored courses are relevant. In some F.T. Centres (e.g. in Chittoor, Bular, Coimbatore and Ghazipur districts) the course content was being modified from batch to batch to meet specific requirements.

2.24 As far as possible, the F.T. Centres should follow the guidelines of the Directorate of Extension and confine their institutional training to specific, specialised, need-based courses, to be attended only by those farmers who have been identified as requiring the particular kind of training. The general training on HYV cultivation or general package of practices should be conducted as peripatetic training. This will have the advantage of ensuring at least some degree of homogeneity amongst the trainees because, being drawn from the same locality, they will at least be from the same agro-climatic zone.

2.25 Incentives: As an incentive to farmers to avail of the training facilities under the programme, a stipend of Rs. 3.50 per head per day was given to institutional course trainees. With accommodation provided free of cost, this amount was expected to compensate for boarding expenses. Because of the subsequent rise in prices, the feeling was that the amount was no longer adequate and should be increased. Similarly, the suggestion has been made that the travelling expenses, to and fro, of the trainees from the village to the centre to be paid to them to enable

both the smaller or less well-to-do farmers and the farmers from distant places to attend the institutional training courses.

2.26 Follow-up: One of the major areas of failure observed during the Study was in respect of follow-up measures. The percentage of trainees reporting no follow-up measures for the different items of training varied from 77% to 87% ^{2/}. Some exceptions were reported from Agro-district (U.P.), Raichur district in Karnataka, and Kolaba and Akola districts of Maharashtra, but they hardly mitigate the general picture of failure. It was usually maintained by the F.T. Centre staff that follow-up measures after training were not part of their responsibility. But the fact that there was no follow-up suggests that chances for wastage were left wide open. The need for setting up an effective machinery to ensure proper follow-up of the training programme, therefore, merits consideration.

Response of Farmers to Short-Term Training

2.27 Adoption of Practices: The real measure for judging the effectiveness of the short-term training imparted under the Farmers' Training Programme is the number of farmers that had taken to the recommended practices as a result of the training. It would appear from Annexure Table 1 that the ~~returns~~ returns from the training efforts were rather low. However, one might come to a more definite judgement only after taking into consideration the corresponding figures of the percentage of farmers who had adopted the practices even before the training. To the extent that more than 50% of the farmers attending the training in Seeds/sowing (65.5%), Fertiliser Adoption (57.8%), P.P. Measures (53.1%) and Irrigation Practices (71.7%) had already adopted the practices recommended,

^{2/} Annexure Table 1.

the expectation of the net new adopters has to be tempered; which explains the low net adoption rates partly. Another measure of the relative success or failure of the training programme which would be independent of the percentage of adopters prior to training, could be to compare the percentage of adopters. It is seen that in four items of training, viz. Seeds/Sowing, Fertiliser Adoption, P.P. Measures and Handling/storage of inputs, the adopters were equal to or more than non-adopters. In the remaining four items the non-adopters were more.

2.28 The relative responsiveness of different size groups shows the 'Medium' size to have been more responsive than the other two, in respect of all items of training except P.P. Measures. But in drawing a comparison with the 'Large' size group it should be noted that in almost all cases (except Irrigation Practices), the percentage of trainees who had adopted the recommended practices prior to training was higher for the 'Large' than the 'Medium' size group. Even if an overall view of adoption is taken, that is, taking into account both adoption prior to as well as after training, the relative performance of the 'Large' and 'Medium' size groups varied from item to item of training. Similarly, no uniform picture in favour of either size group emerges if the ratio of adopters to non-adopters is taken. However, in terms of this ratio of adopters to non-adopters, the 'Small' size group has generally fared the worst.

2.29 Reason for Non-adoption: In the reasons for non-adoption after training, reported by such trainee farmers 3/, no uniform pattern is discernible; the picture varied for each item of training. In two out of the four items of training mentioned earlier in which adopters after training were relatively fewer than non-adopters, viz. Multiple Cropping and Irrigation Practices, it may be seen that the major reason for non-adoption was inadequate availability of water, associated with the two other closely similar reasons of lack of adequate facility and non-suitability for the farm. This only indicates that the practices recommended were not really relevant to these farmers (apart from those who had stated this at the outset). Or conversely, the selection of farmers for the training courses was inappropriate.

2.30 Of the other two items, where non-adopters surpass adopters in relative numbers, the poorest rate of adoption, both absolute and relative, has been recorded for Soil Management practices; against an adoption (net) rate of 16.9%, the non-adoption rate is 53.5%. The major reason for non-adoption was lack of guidance/assistance from official agencies (51.4%) and this, in association with the reason - lack of adequate facility (10.6%), points to the wastage that occurred when the training was not backed by follow-up measures (Annexure Table 2).

2.31 Farm Mechanisation, the other item in which the ratio of adoption to non-adoption was adverse, was not adopted mostly because of the high cost involved (49.5%) and non-availability of credit/financial assistance (26.5%). ~~Against the adopter brand~~

items of training, the relative response appears to have been the best for training in practices relating to seeds/sowing; the percentage of adopters after training is more than double that of non-adopters. The main reasons for non-adoption mentioned were: high cost involved (39.5%), non-availability of skilled labour (13.2%) and unsuitability for the farm; 'inconvenience' in relation to the line-sowing practice was also mentioned sometimes and is included under 'other reasons'.

2.32 Training in Fertiliser adoption seems also to have met with relative success, the adopters after training being almost 1.5 times the non-adopters. The main reasons for non-adoption were high costs involved (51.3%) and non-availability of credit/financial assistance (24.4%).

2.33 The percentage of (net) adopters after training is exactly the same as non-adopters for training in Plant Protection Measures. The major reason mentioned for non-adoption were: high cost involved (33.3%) and non-availability of credit/financial assistance (11.1%), along with non-suitability for the farm (12.5%); some trainees also mentioned 'no need felt' as a reason which is included in other reasons (16.7%). It is surprising that some, though few (5.3%), have mentioned the fear of adverse effect as the reason for non-adoption even after undertaking the training.

2.34 High cost involved is again the most commonly mentioned (32.9%) reason for non-adoption of recommended practices in relation to handling/storage of inputs. Non-suitability of the recommended practices and lack of adequate facility have been mentioned equally frequently (13.9%) as reason for non-adoption; while lack of adequate space for adopting the practice has been mentioned only slightly less frequently (11.4%).

2.35 Broadly, it appears that the training programme was successful since non-adoption was mostly for reasons beyond the control of the training agency directly. Lack of follow-up and supporting measures (e.g. credit and soil testing) mainly account for one broad group of non-adopters, and the absence of certain necessary pre-requisites for adoption (e.g. irrigation facilities) account for another. To the extent that the latter kind of non-adopters could have been avoided, by either selecting the farmers to suit the training course or tailoring the training course to suit the needs of the farmers, the wastage therefrom could have been avoided.

2.36 By far the biggest cause of wastage has been wrong selection of farmers who had no need for the training as they were already practising the recommended practices. This is bound to happen if selection continues to be in favour of large farmers and 'progressive farmers'. However, the variations in proportion of trainees reporting prior adoption for different items signifies that the extent of knowledge, and hence need for training, was not uniform for all items of training. This would suggest that specialised courses for limited topics would be better suited to 'progressive cultivators' who may possess knowledge in certain areas already but needed training in others. The generalised comprehensive training covering all aspects of the package of recommended practices should be given only to those farmers who have not been initiated at all.

CHARCHAMANDALS (FARMERS' DISCUSSION GROUPS)

The Scheme:

An important plank of the Farmers' Training Programme was the establishment of Farmers' Discussion Groups or Charchamandals, separately for farm-men and farm-women, in the selected district. These groups were envisaged as voluntarily formed bodies of farmers, constituting forums for continuing informal education through discussions and mutual exchange of knowledge within the village. The farm broadcasts of the A.I.R. station covering particular district having Charchamandals were directed particularly at these groups, and the bi-weekly programmes on the radio were the occasions for holding the meetings of the groups.

3.2 The F.T. Centre was to encourage the formation of Charchamandals by (i) distributing a low-cost/transistorised radio-set to the Convenor of each charchamandal at a subsidised rate (50%) for use by the group; (ii) provision of free farm literature; (iii) a monthly payment of Rs.5.00 per charchamandal for defraying costs of stationery, postage, etc.; (iv) technical support by providing clarifications on technical queries through correspondence or radio broadcasts; (v) participation by the F.T. Centre staff in the meetings of the charchamandals whenever possible; and (vi) giving an annual prize each to the best run men's and women's charchamandals of the district.

3.3 Each F.T. Centre was given the target to organise 200 charchamandals for men and 100 charchamandals for women in the district, with a minimum of 20 members each. The F.T. Centre was also to run special training courses for convenors of

Charchamandals. At the F.T. Centre the Radio Contact Officer had particular responsibility for organising and seeing to the running of Charchamandals. It was his function to receive the technical queries from them and, after getting the proper clarifications/solutions/answers from the relevant experts, to furnish these either through correspondence or by having them broadcast during the farmers' programme of the local A.I.R. station. The Convenors' courses were run as regular institutional courses of the F.T. Centre.

Establishment of Charchamandals:

3.4 The position of Charchamandals reported to have been established in the selected districts by the end of 1971-72 is shown in Annexure Table 3.

3.5 It is observed that there were wide variations from district to district. Whereas in districts such as Chittoor (A.P.), Trichur and Trivandrum (Kerala), Jaipur (Rajasthan) and Coimbatore (Tamil Nadu), the number of Charchamandals was far above the targets set, in some of the districts such as Darbhanga (Bihar), Coorg (Karnataka), Raipur (M.P.), Puri (Orissa) and Kota (Rajasthan), the progress in establishing them was slow. This apart, the other notable finding was that, by and large, Charchamandals for women were far fewer than targetted, with the exceptions of Trichur and Trivandrum (Kerala), Rohtak (Haryana) and Coimbatore (Tamil Nadu). It may, however, be mentioned rightaway that these figures of the number of Charchamandals established cannot be taken at face value since observations during the Study revealed that in almost all the districts many of these groups were moribund, defunct or non-existent. From such districts, such as Chittoor (A.P.), Kamrup (Assam),

Jamnagar (Gujarat), Raipur (M.P.), Coimbatore (Tamil Nadu), Akola (Maharashtra) and Trivandrum (Kerala), it was even reported that most of the Charchamandals said to have been established were not functioning.

Functioning of Charchamandals:

3.6 The actual functioning of Charchamandals was observed by interviewing the Convenors and members of some sample Charchamandals within the selected districts. The details of the findings are given in the ensuing sections:

3.7 Membership: A study of membership of the Charchamandals shows that the bigger farmers were more than proportionately represented, to the disadvantage of the smaller farmers. Taking the size-wise distribution of non-participants to represent the overall distribution of farmers in the selected villages from Annexure Table 1, it can be seen that both large and medium farmers were better represented in the membership of discussion groups than their members in the community warranted. Consequently, against 57% of the farmers in general being of the small size group, their representation in discussion groups was only 39%. It is not known whether this was on account of a lack of initiative and interest amongst the smaller farmers or they were deliberately not enrolled by Convenors, who happened to be proportionately even more from amongst the large farmers. The literacy rate amongst the members of discussion groups was found to be remarkably high at 80%.

3.8 Frequency of Attendance: The discussion groups were supposed to meet twice a week, particularly to listen to the bi-weekly special broadcasts from the A.I.R. Station covering the district. However, it was observed that these groups were mostly inactive,

as is evident from Annexure Table 4, showing the frequency of attendance in meetings reported by the sample of members selected for study. Not to speak of twice a week, as high as 67.8% of the members reported attending groups' meetings only once a month or even less frequently; as much as 13% had never attended a meeting. These figures amply bear out the general impression gathered from field observations during the course of the Study that majority of the discussion groups established in the various States were not active. However, as may be seen from Annexure Table 4, the situation varied widely from State to State, with Haryana at one end showing daily attendance being reported by 74% of the sample members and Tamil Nadu at the other showing almost complete inanimation.

3.9 As an incentive for farmers to be brought together to form discussion groups, the programme provided for supplying a transistorised radio receiver to the convener of a group at a highly (50%, usually) subsidised rate. Moreover, in most States, all that was required of a person to exploit this facility was to provide a list of twenty persons, supposedly enrolled as members of a newly formed Charchamandal, to the Farmers' Training Centre and, as convener, to collect the radio set at the subsidised price. This proved to be a great attraction and the ease with which it could be achieved attracted all and sundry to make the most of it, with little interest in the actual establishment of a discussion group. Thus, it was found during the Study that in some cases names of persons were given as members who either did not know about it, were no longer alive or perhaps had never existed.

3.10 The F.T. Centres, which had the responsibility for implementing this scheme for establishment of discussion groups, seemed to have ignored these aspects since they were given the first target of organising 300 groups within each district - irrespective of the size and population of the district. Finding 300 convenors in the district, with the requisite capabilities and initiative, to start as many as discussion groups, was no small task. Once organised, to keep them functioning actively by providing the necessary material and moral encouragements from time to time was an even bigger task which, with their available resources and responsibilities, the F.T. Centres were not in a position to accomplish. The F.T. Centres, therefore, achieved their given targets by distributing the radio receivers unquestioningly and then did not do much to sustain these organisations.

3.11 One almost the universal complaint noted during the Study was that the particular brand of radio sets distributed under the programme was of an exceptionally poor quality. These were reported to be constantly going out of order and needing repairs, for which there was no financial provision under the programme and quite often no repairing facilities within easy reach either. The common feeling was that the F.T. Centres should bear the cost of repairs. The ultimate effect of this was that it compounded the reasons mentioned earlier in hamstringing many of the discussion groups which might otherwise have functioned actively.

3.12 By canvassing the members of discussion groups, it was possible to get an insight into the working of Charchamandals. Even in those six of the 15 selected States, viz. Assam, Haryana, Kerala, Maharashtra, Punjab and Rajasthan, where relatively better

attendance of members at the meetings was reported, the frequency of attendance was not satisfactory, as may be seen from Table below:

Charchamandals, Frequency of Attendance in Charchamandals in Six Selected States.

State	'Total 'No. of 'members'	Frequency of Attendance					
		'Daily'	'Twice ' a week'	' Weekly'	' Fort- ' nightly'	' Monthly'	' Less than ' monthly/ ' never'
1	2	3	4	5	6	7	8
Assam	36	-	-	12	20	4	-
Haryana	53	39	4	9	-	1	-
Kerala	45	-	1	18	8	8	10
Maharashtra	107	-	-	7	40	39	21
Punjab	28	-	-	28	-	-	-
Rajasthan	28	-	-	8	5	15	-
Total: No.	297	39	5	82	73	67	31
%		13.1	1.7	27.6	24.6	22.6	10.4

- NB: Percentage as of row total at Col.2

Bi-weekly attendance at meetings to listen to the special broadcasts was reported by only 1.7% of the respondents; the largest group (27.6%) reporting attendance once a week. As high as 33% of the membership appeared to be of a casual nature, attending the meetings at best only once a month. These figures testify to the general lack of animation of these discussion groups.

3.13 Active Participants: In the meetings of the discussion groups only the members seemed to be taking a significant part. It may be noted from Table below that persons who could have contributed meaningfully to the discussions (such as the convenors,

did not always lie with the F.T. Centres, because they had to depend on other agencies for such literature, particularly the information units of the State Agricultural Departments, and these agencies on their part were not regular.

Receipt of Farm Literature and Discussions
(Six selected States)

State	Total No. canvassed	No. reporting received regularly	No. reporting discussed
1	2	3	4
Assam	36	1	1
Haryana	53	48	49
Kerala	45	-	-
Maharashtra	107	58	12
Punjab	28	28	28
Rajasthan	28	14	14
Grand Total: No.	297	149	104
%	100	50.2	35.0

NB: Percentages as of Col. 2.

3.15 Though 50% of the respondents reported the receipt of farm literature on a regular basis, only 35% reported discussions being held on them. In some cases it was seen that such literature was kept by the convener even without having opened the packing in which it was received. Thus, even those few of the discussion groups that were provided with such material did not take full use of it.

3.16 Apart from providing the farm literature, the F.T. Centres were supposed to help the discussion groups in case of any difficulty in understanding the material supplied or the farm broadcasts of the A.I.R. The conveners were supposed to seek such clarifications

from the F.T.Centres. However, it was not necessary for the convenors to approach only the F.T.Centres with their problems; they were free to approach any appropriate person or organisation that suited their convenience.

Charchanandals: Details of Clarifications sought and received ((Six selected States)

State	Total No. can- vassed	Clarification received from								
		'Repor- 'ting 'clari- 'fica- 'tions 'sought	'Repor- 'ting 'clari- 'fica- 'tion 'ved in 'time	'Subject 'matter 'specia- 'lists	'Dis- 'trict 'Trai- 'ning 'Offi- 'cer	'Dis- 'trict 'Agri- 'cul- 'tural 'Offi- 'cer	'Other 'Govern- 'ment 'Agricultural 'Depart- 'ment	'Radio 'Con- 'tact 'Offi- 'cer	'Others	
1	2	3	4	5	6	7	8	9	10	
Assam	36	33	31*	-	8	-	4	-	9	
Haryana	53	40	40	34	-	-	7	-	-	
Kerala	45	28	25	-	8	-	-	-	21	
Maharashtra	107	11	11	-	11	-	-	-	-	
Punjab	28	14	14	-	14	-	-	-	-	
Rajasthan	28	28	14	-	5	-	-	15	34	
Grand Total:	No. %	297 100	154 51.9	135 87.7	34 25.2	46 34.1	-	11 8.1	15 11.1	25.2

- NB: (i) Percentage of Col.3 to Col.2.
(ii) Percentage of Col.4 to Col.3.
(iii) Percentage of Cols.5 to 10 to Col.4.
(iv) Responses in Cols. 5 to 10 are not mutually exclusive.

*Some of the respondents from Assam did not know from whom the clarifications were received.

3.17 The above table shows that of the respondents canvassed, only 52% had reported seeking such clarifications for difficulties encountered in understanding either the farm literature provided or the farm broadcasts. This low level of reaction was due to the

lack of interest and initiative. The response of the persons and agencies responsible for providing such clarifications appears to have been satisfactory, in that 88% of the respondents (reporting clarifications being sought) had received timely replies to their queries. It may be seen (Cols.5-10) that the F.T.Centros were mostly (45%) responsible for providing these clarifications through the District Training Officers (34%) and Radio Contact Officers (11%). In so far as the Radio Contact Officers were primarily meant for liaising between the discussion groups and the radio stations, and thus having most immediate responsibility for the groups, it would appear that they had not been closely involved in supporting the functioning of the groups.

3.18 Using the holding-size distribution of selected non-participant to represent the general size-wise distribution of holdings in the selected village, it may be seen from the following Table that in general the bigger farmers had benefited more than smaller ones in membership of Charchamandals (Discussion Groups):

Distribution by Size of Household Holding of Charchamandal Convenors, Members & Non-participants

Holding size of Household	Convenors		Members		Non-Participants	
	Nos.	%age	Nos.	%age	Nos.	%age
1	2	3	4	5	6	7
Small	66	34	413	39	305	57
Medium	80	42	476	46	199	38
Large	46	24	160	15	28	5
Total	192	100	1051	100	532	100

NB: Percentages as of Column totals.

- Small holding - Less than 2 hectares.
- Medium - Two hectares to less than 8 hectares.
- Large - Eight hectares and above.

However, it is difficult to say whether this was because the smaller farmers lacked the initiative and hence did not come forward, or that they lacked influence and were not enrolled as members. The corresponding figures for the convenors reveal an even greater bias in favour of bigger households.

3.19 The Study found that with respect to the educational attainments of the convenors the position was not very happy. Only 10% of the convenors were Matriculates or above; 44% were "below Matric"; 37% were below the "Middle" standard, and 9% were illiterate. In this programme where the convenor is expected to lead the discussions of the group on the basis of special radio broadcasts and the printed material supplied, where he or she has to forward the problems of the group through writing to the Radio Contact Officer/A.I.R. and received back the solutions/replies on behalf of the group from them, the handicap of having an inadequately qualified (not to speak of illiterate) convenor can well be appreciated.

3.20 Of the 192 convenors interviewed in the course of the Study, 111 had undergone the training for convenors at Farmers' Training Centres. The training courses were for a duration of 3 to 5 days and covered subjects like leadership development, group dynamics, etc.

Training for Convenors of Charchamandals:

3.21 It is observed during the course of the Study that the programme for training of convenors of Charchamandals under the F.T. Programme was generally not running satisfactorily. Whereas the F.T. Centres went ahead with organising the Charchamandals, the training of convenors lagged far behind. In some instances, the training courses were started by the F.T. Centres a year or two late and

hence a backlog had developed, but apart from this the responses of convenors were also poor. Only a handful of convenors would attend a course against the provision of 25. On top of this it was found that some of the persons who had attended these courses -were not even cultivators (e.g. teachers and other types of employees reported from Hyderabad, Darbhanga, Rohtak, Jammu and Lucknow districts).

3.22 The reasons for this poor response to the training program for convenors were two-fold. First, not all those who had become convenors of Charchamandals were seriously interested in it. For this the provision under the programme for distribution of transistorised radio receivers to the convenors at a highly (50%) subsidised rate was partly to blame. It was not difficult for any one to present a list of twenty names with signatures to proclaim the establishment of a Charchamandal in a village and thus to procure the radio receiver from the F.T. Centre at a cheap price. It was observed that many had resorted to this practice and despite obtaining the radio receivers no Charchamandals were in fact organised, since the F.T. Centres did not take pains to verify the lists. The other reason for poor response was that the convenor of a Charchamandal was almost always the relatively affluent and influential person of the village, and, therefore, was sometimes disinclined to attend the training course. On being asked, 54% expressed an opinion on the duration of training and most of them (78%) suggested that it be increased. Only 3% suggested a reduction while the remaining 19% thought the present duration was satisfactory.

3.23 With regard to the time at which the convenors were called the training, most reported being called during the relatively slack period - "Standing crops", "Post-harvest" and "Pre-sowing". However, 13% and 9% reported attending the courses during the busy "Harvesting" and "Sowing periods", respectively. The preferred periods suggested by 59% of the trained convenors interviewed pointed expectedly to the agricultural slack seasons mostly; though 89% of these indicated a preference for the "harvesting period".

Training for Convenors of Charchamandals
Distribution by Time of Training and Suggestions
Thereof

Type of respondent	Total No. of respondents	Time of Training (Crop stages)						
		Pre-sowing	Sowing	Nursery	Trans-planting	Standing Crop	Harvesting	Post-harvest
1	2	3	4	5	6	7	8	9
Reporting time at which training held	111	12 (10.8)	10 (9.0)	5 (4.5)	2 (1.8)	42 (32.8)	14 (12.6)	20 (18.0)
Suggesting preferred time for training	65	30 (46.2)	3 (4.6)	4 (6.2)	2 (3.1)	10 (15.4)	6 (9.2)	17 (25.2)

NB: Figures in brackets are percentages as of total respondents (Col. 2).

3.24 The trained convenors interviewed were asked their opinion on the usefulness of the training given, with the choice of responses limited to (1) Not helpful at all, (2) Helpful in organising Charchamandals, (3) Helpful in organising discussions, and (4) Helpful in follow-up action with authorities. It is significant that 52% reported the training as being "not helpful at all".

Of the remaining, 4% reported the training as being useful "for organising Charchamandals" and 7% as being "helpful in organising discussions", while none reported that the training had helped in "follow-up with authorities".

3.25 These responses are a severe commentary on this training programme. What would appear to be useful is a general course in agricultural practices supplemented by a simple, practical oriented course in convenorship. The general course in agricultural practices would prove to be a useful foundation, since the main purpose of the discussion groups is to act as an agricultural extension agency. The short-term training course of the F.T. Programme might be made obligatory for the convenor. (In Akola district of Maharashtra, the convenors were asked to attend the short-term training course). The supplementary course in convenorship might include information on the methods/means/procedures for getting the help from various governmental agencies, credit institutions, inputs suppliers, etc. and on the different kinds of facilities and incentives that are available to the farmers. Besides, the training of convenors and organisation of discussion groups must go hand in hand. It might be better to have discussion groups with trained convenors only.

Chapter IV

NATIONAL DEMONSTRATION PROGRAMME

Organisation and Administrations

The National Demonstration Programme was initially being implemented through the State Agricultural Departments. Later, wherever possible, the responsibility for specified areas was shifted to agricultural universities and research institutes, so that the research scientists could be directly involved in the demonstrations. Thus, certain districts came to be covered by such institutions while others continued to be the responsibility of the State Agricultural Departments. However, such geographical jurisdiction had not always been clearcut, such as in Rajasthan.

4.2 In each intensive district selected under the programme, the implementing agency (Agricultural University, Research Institute or State Agricultural Department) was to provide a team of four Subject Matter Specialists (SMS) to carry out the programme by laying the required number of demonstrations. In non-intensive districts no separate staff were provided for the N.D. Programme. The demonstrations were laid by the regular staff of the implementing agency in addition to their normal work. Details of the staff position in 1971-72 in respect of the selected districts are given in Table below

(Table on next page)

National Demonstration Programme Position
Position of Subject Matter Specialists
in Selected Districts (1971-72)

State	No. of selec- ted districts	S.M.S. in position				No. of districts with full complement of staff
		Agronomy	Plant proteo- tion	Soil Science	Agr. Engg. and water management	
1	2	3	4	5	6	7
1. Andhra Pradesh	3	3	3	3	1	1
2. Assam	1	1	1	1	1	1
3. Bihar	3	3	2	3	2	2
4. Gujarat	2	2	2	2	-	-
5. Haryana	1	1	1	1	1	1
6. Karnataka	3	2	2	3	1	-
7. Kerala	2	2	2	2	-	-
8. Madhya Pradesh	2	2	2	2	1	1
9. Maharashtra	3	3	2	3	3	2
10. Orissa	2	2	2	2	2	2
11. Punjab	1	-	1	1	1	-
12. Rajasthan	2	2	2	2	2	2
13. Tamil Nadu	2	2	2	2	2	2
14. Uttar Pradesh	3	3	3	3	3	3
15. West Bengal	1	@	@	@	@	@
<hr/>						
Total						
Excl. W. Bengal	30	28	22	30	20	17

@ No staff posted separately as SMS; Schema implemented
by normal district level specialists and F.T. Centre Staff.

4.3 The above information needs to be qualified by two remarks. First, as briefly indicated therein, the total position for all selected districts excludes Burdwan district in West Bengal, because the National Demonstration Programme was being conducted by the existing district level specialists and F.T. Centre staff and no SMS had been appointed exclusively for the programme. Secondly, an SMS has been shown to be in position if the post was manned at any time during 1971-72. Consequently, the table does not reveal the fact of posts lying vacant for some period in 1971-72 owing to late appointment or posting or in between the transfer of one incumbent and the posting of the next.

4.4 The Table above does bring out the generally unsatisfactory position with regard to posting of staff to the SMS teams in the selected districts, particularly with regard to the post of SMS Agricultural Engineering & Water Management (Col.6). Column 7 of Table indicates the situation in still clearer focus, but as mentioned in the previous paragraph, does not show the vacancy position within the year (1971-72). The problem of one or the other post lying vacant for a considerable period of the year (3 months or more) in those districts where the full complement of staff is indicated was reported from Kamrup (Assam), Alola and Kolaba (Maharashtra) and Agra, Ghazipur and Lucknow (U.P.).

4.5 The programme envisaged the posting of well qualified, trained and experienced hands of the implementing agencies as Subject Matter Specialists for conducting the demonstrations. It was observed that SMSs were all technically well qualified, being graduates or post-graduates in agricultural science and with one even having

a Ph.D degree. However, there were a few exceptions in the post of SMS Agricultural Engineering and Water Management which were manned by engineering graduates - such as in Kanpur (Assam), West Godavari and Chittoor (Andhra Pradesh), Kota (Rajasthan) and Coimbatore (Tamil Nadu). The number of unfilled posts of SMS Agricultural Engineering and Water Management illustrates the commonly felt difficulty of finding suitably qualified persons for the job. It was also observed that in some cases instead of experienced persons fresh graduates/post-graduates were being posted as SMS on first appointment. Similarly, not all the persons holding SMS posts had undergone any special training for the job.

4.6 It was observed that supervision of the demonstrations by the experts was generally not as close as envisaged under the programme. Important operations to have been done under the personal supervision of the experts were often left to the cultivators entirely, resulting in the operation either not being carried out (e.g. prophylactic plant protection measures) or being carried out wrongly (e.g. fertilisers meant for the demonstration plot being applied to the whole of the farmers field). A number of cases were reported by farmers of the N.D. Plot Pocket Diary being filled in by the SMS at home or headquarters and not in the field itself as required. A few cases of yields being recorded in the pocket diary where there was actually none (in one case in Raipur district of Madhya Pradesh even the crop was not there) were reported during the study. Records of the numbers of trainees attending the demonstration camps were not always found to be reliable.

4.7 One important reason for such a situation was the inadequacy of staff, compounded sometimes by the problems of transfers. The question might even be raised whether the full complement of 4 SMSs could be expected to devote the necessary close attention to the 25 demonstrations that had to be laid in an intensive district. Where each SMS had personal responsibility for overall supervision of 5-6 demonstrations in addition to his subject matter responsibility for all the demonstrations, a close supervision of the demonstrations was found difficult particularly, due to distances between demonstration plots.

4.8 One of the important shortcomings noticed in the implementation of the programme was the late allocation of funds to the implementing agencies. Often the delay was in intimating sanctions to the implementation level of the SMS teams. This had created a number of problems. First, there was a delay in setting the targets for number of demonstrations in a given district, which consequently delayed the subsequent actions relating to selection of farmers, etc. In one instance (in Ghazipur district, U.P.) it was reported that because the targets for additional demonstrations to be laid were communicated much after the crops had already been sown in the fields, the SMS team selected the already sown plots which appeared to be the best in the locality for inclusion in their progress report. This fulfilled their target requirements on paper and the inputs subsidies were distributed accordingly. Secondly, though the recommended inputs were expected to be arranged for by the implementing agency to ensure both timeliness and quality, this was not possible because of the late allocation of funds. Thus,

the demonstrations had to depend on the demonstration plot holders to provide the inputs on the understanding that the subsidy would be paid later. This necessitated the selection being limited to big or affluent farmers who could afford the initial outlay on inputs and to wait for payment of the subsidy amount later. Further, to ensure the application of recommended doses of fertilisers and other inputs, a condition was sometimes stipulated (as in Kota district of Rajasthan and Agra and Lucknow in U.P.) that the subsidy would be paid to the farmers provided the demonstration was successful.

4.9 In some districts, payment of input subsidies in cash was made in the normal course instead of the demonstrating farmer being provided with the inputs in kind. Having to procure the inputs on his own the farmer was not always able to get them in time or of the proper type. This naturally detracted from the quality of the demonstration. The implementing agency might take on the responsibility for ensuring timely supply of the recommended inputs, for which task it is much better placed than the farmer.

Policy of Coverage:

4.10 Despite the fact that the National Demonstration Programme came to be recognised as one of the planks of the Farmers Education Programme, generally the selection of districts under it was not related to the coverage under the Farmers Training Programme. In so far as selection for both programmes took into consideration the existence of intensive agricultural programmes, a number of districts were commonly selected, sometimes fortuitously, for both the programmes. The main criteria for selection of districts under the N.D. Programme were the suitability of district in terms of

potential for development (hence the intensive agricultural districts) and the existence of an institutional base (agricultural university, institute, research station) with the requisite expertise for implementing the programme. In consideration of the latter criterion a number of non-intensive districts were also selected.

4.11 Within the selected districts no particular policy or strategy appeared to have been adopted to achieve a systematic coverage. The guidelines given by the Indian Council of Agricultural Research (I.C.A.R.) in respect of selection of demonstration sites and farmers suggest inter alia, that the selected demonstration sites "may represent the spectrum of soil types, textural classes, drainage characteristics and sources and availability of irrigation" in the district. It was also to be ensured that small farmers got preference in the matter of selection.

4.12 In practice, however, the major consideration for selection of farmers and demonstration sites appeared to be assurance of success of the demonstrations in terms of the set yield targets. The tendency had been to select an ideal rather than a typical site, to suit the particular demonstration, so that the results were assured. In most States it was observed that the bigger or more influential farmers (already knowledgeable about and inclined to adopt the improved practices, and capable of investing in the required inputs at appropriate levels)^{1/} had got selected.

4.13 In terms of area coverage within the selected district, subject to the above conditions, the policy had generally been to achieve wide coverage. Usually another demonstration was not

^{1/} Where input subsidies under the programme were paid later on, this was an important consideration.

laid in or near a village which had been covered earlier. Exceptions were reported from Assam, Bihar, Madhya Pradesh, Karnataka and Orissa where the N.D. plots were all laid within a limited distance from the headquarters of the SMS team or the F.T. Centre. Sometimes this was so because of the limited mobility of the SMS team. But in either case a deliberate attempt to include representative types of agricultural conditions amongst the selected plots was not made.

4.14 Even in the matter of matching the demonstration crop rotations with the sites the logic of the programme got inverted. Each demonstration was supposed to be unique undertaking which took into consideration all the site factors of soil, irrigation, drainage, etc. as well as the local circumstances like crop preferences and market forces - the generalised package of practices approach was to be abjured. Hence each demonstration was to be tailor-made for the particular farmer and his plot. In practice, however, it was observed sometimes that suitable sites and/or farmers were searched out for pre-determined crop rotations. At times a farmer had refused a particular crop of a given rotation because he was not interested in it.

4.15 As mentioned earlier, the only deliberate policy that seems to have been generally adopted, in regard to coverage of areas within the selected district, was the policy of extensive coverage. Accordingly, instructions were issued not to repeat demonstrations in the same or nearby villages. The idea behind this strategy being that after the efficacy of the recommended package of practices had been convincingly demonstrated once, the follow-up work on this would be taken up by the normal extension agency

or through secondary demonstrations of the Farmers Training Centres. To make the N.D. Programme an effective vehicle of extension and training, it is suggested that it might be better to adopt a policy of taking up a small area at a time, applying a concentrated dose of demonstrations to have an appreciable effect in purely absolute terms, continuing in the area for a year or two, and then shifting to the next. The demonstrations should have a massive visible impact and be sustained for a while to be effective. As a consequence of the policy of extensive coverage, repeat demonstrations were forbidden. But there should be a deliberate policy to repeat demonstrations at least in those plots where the earlier demonstration had failed.

4.16 It is very important to assess the needs of extension efforts in a particular area before its selection for coverage under the Programme. In case of Kerala, Madhya Pradesh (Gwalior) and Rajasthan it was observed that the need for motivating the cultivators to take up multiple cropping or adopt High Yielding Varieties and improved practices was not there; the cultivators were either already practising these or were unable to do so only for the want of facilities, like irrigation, credit, inputs, etc. Since the programme had nothing new to give to them, its implementation in such areas must be considered infructuous. Figures in Columns 6 and 7 of Annexure Table 5 showing the large proportion of trainees reporting the training as "not relevant" clearly testify to the lack of adjustments sometimes of the demonstrations to suit local needs. Further, Cols. 8, 9 and 10 of the Table indicate to what extent the training proved infructuous in so far as these farmers had adopted the practices even before the training.

National Demonstration Field Training - Implementation:

4.17 Beneficiaries: Under the Nation Demonstration Programme two types of beneficiaries were identified, those on whose plots the demonstrations were laid and others who had attended the field training camps held at these demonstration sites. It was observed that among both the types of beneficiaries the proportion of bigger farmers, benefiting from the programme, was relatively more than the smaller ones. Looking at the overall size-wise distribution of holdings in the selected villages, it was noted that the beneficiaries of the field training camps were relatively more from the 'Large and Medium', rather than small holding-size categories; and as between the first two, the bias continued towards the 'Large' category. This trend is even more markedly evident for the other type of beneficiaries - demonstration plot holders. Whereas only 5% of the farmers in general had big holdings (of more than 8 hectares), 19% of the field training camp beneficiaries and 40% of the demonstration plot holders were from this group as will be seen in the following Table:

National Demonstration Programme

Distribution by Size of Holdings

Size type of household	Plot holder households	Trainees households	Non-participant households
1	2	3	4
Small holding	Nos. 13	218	305
	% 13.3	30.3	57.3
Medium holding	Nos. 46	367	199
	% 46.9	51.1	37.4
Large holding	Nos. 39	134	28
	% 39.8	18.6	5.3
Totals:	Nos. 98	719	532

N.B.: Small holding - Less than 8 hectares.
 Medium " - Two to less than 8 hectares
 Large " - Eight hectares and above.
 (Percentages as of column totals)

This preponderance of bigger farmers amongst the demonstration plot holders was mainly the result of deliberate choice, the reasons for which have earlier been explained. The distribution of "trained" farmers in favour of the bigger household holding categories is more difficult to explain. This may have been owing either to a lack of initiative amongst the smaller farmers or to a lack of interest - possibly because of the demonstrations being held in the bigger farmers' fields.

4.18 This bias in favour of selecting the bigger farmers for laying the demonstrations had resulted in one obvious failing. One of the professed aims of the programme was to demonstrate the independence of applicability and relevance of the recommended practices to the affluence and size of the farmer. By selecting the bigger farmers, this purpose was defeated. From this point of view it is obvious that at least a proportionate representation of the smaller farmers should have been ensured in the selection for laying demonstration plots. It should be a part of extension work to persuade and convince the small farmer by demonstrations, the advantages of the improved practices; for which purpose the input subsidies under the scheme had been provided. This implies, of course, that the administrative problems with regard to timely provision of inputs should first be solved.

4.19 Training Camps One of the vital aims of the N.D. Programme with which this study has been mainly concerned, was to serve as a visual support to the Farmers Training Programme. Field-day training camps were to be organised at the demonstration site, with the help of the Farmers' training centres and local extension

agencies, in order to train farmers in the techniques demonstrated. It was observed that in this respect the programme was less than successful. The full potential for using these demonstrations as open air class rooms for farmers training was not exploited, as will be evident from the subsequent paragraphs.

4.20 Number of Camps. It will be seen in Annexure Table 6 (dealing with the training camps held at the 93 demonstration sites selected for the Study) that the number of training camps per demonstration per crop varied from type to type (one crop/two/three crop) and crop to crop (first/second/third crop). In both the two-crop and three-crop (but not in the one-crop) demonstrations, no training camps were held at all at some of the demonstration sites. Even where training was held the majority of the demonstrations had only one training camp held at the site. Sometimes, at the multiple-crop demonstrations, training camps were held for the subsequent crops but not for the first crop.

4.21 Number of Trainees. Looking at the number of trainees attending the field-day training camps (Table ^{next} ~~of page~~), the overall average worked out to only 15.6. Average attendance at demonstrations where only one training camp was held was much higher (24.1) than where more than one camps were organised (12.0). Where multiple training camps were organised, the attendance at the first camp was far better (20.5) than at the subsequent camps (10.1). These figures do indicate that either more effort was made by the agencies involved, in organising the initial (and sometime only) training camp than for subsequent training camps, or that the enthusiasm amongst the trainees was not sufficiently generated or even sustained in the first training camp to interest them in the later camps.

National Demonstration Programme

Average Number of Trainees at Field-day
Training Camps

	I crop demonstrations	II crop demonstrations	III crop demonstrations	All de- monstra- tions
	1	2	3	4
1. Average No. of trainees per training camp	20.5 (13)	14.1 (182)	20.3 (49)	15.6 (243)
2. Average No. of trainees per demonstration with single training camp	21.4 (8)	25.1 (45)	22.7 (20)	24.1 (73)
3. (a) Average No. of trainees per demonstration with multiple training camps.	18.5 (4)	10.4 (137)	18.7 (29)	13.0 (170)
(b) Average No. of the first training camp.	11.5 (2)	13.3 (42)	25.3 (12)	20.5 (56)
(c) Average No. in the subsequent training camp.	25.5 (2)	9.1 (95)	14.0 (17)	10.1 (114)

4.22 Timing. Details regarding the timing of training were collected from the farmers attending the field training camps and the national demonstration plot holders. The majority of the training camps were reported to have been held at the "standing crop" stage, followed by the "sowing/transplanting" stage and "harvesting" period. From the demonstration plot holders who furnished demonstration type, crop, and camp-wise details, it was learnt that the first camp at the demonstration site was most often held at the "sowing/transplanting" stage; some (6-8%) were held at the earlier "preparatory" stage, but some were held only at the "harvesting" and even "threshing" stages.

National Demonstration Field Day Training.
Distribution by Time of Training and Suggestion
thereof

Type of respondent	Total No. of respondents	Time of Training (Crop stages)						
		Pre-sowing	Sowing	Nursery	Trans-planting	Standing crop	Harvesting	Post-harvest
1	2	3	4	5	6	7	8	9
Reporting time at which training held.	758	25 (3.3)	128 (23.2)	24 (3.1)	85 (11.1)	461 (60.0)	154 (20.1)	16 (2.1)
Suggesting preferred time for training	350	109 (31.1)	134 (38.3)	41 (11.3)	43 (11.3)	143 (40.9)	69 (19.4)	4 (1.1)

NB - Figures in brackets are percentage as of total respondents (Col.2).

4.23 Though the ideal would be to have training camps at all important stages, to demonstrate practically the important operations, this may not be practicable. The "standing crop" stage has the advantage of being the one when farmers can be attracted because of a good stand of crop, as well as the period when a number of important operations - top dressing, irrigation, plant protection measures, interculture, etc. - can be demonstrated. However, if the training has to be practical rather than purely theoretical, it is essential to have more than one training camp, at different stages of the crop.

4.24 About 45% of the field day training, farmers made suggestions regarding the preferred time for field training camps (Table above). Suggestions were made for more or less all the stages except the "post-harvest". The most preferred time (41%) was the "standing

crop" stage; but a large number of suggestions were also made for the earlier "pre-sowing" (31%) and "sowing" (53%) stages, reflecting the realisation amongst farmers of the importance of preliminary operations for success.

4.25 Methods of training Information regarding the methods of training used was collected from both the trainee farmers and the demonstration plots holders. The details asked for varied slightly; from the former, details were asked in respect of each item of training whereas the camp-wise details were collected from the latter. Not unexpectedly, "lectures" was most frequently reported as the method of training used amongst the trainees farmers. The use of audio-visual aids, like maps, charts and film shows, was rarely reported (less than 10%) by both types of respondents as also practical training in the use of improved implements. However, 30-40% of the respondents of both types reported practical demonstrations and field training being given; except in irrigation practices, soil management, farm mechanisation and handling/storage of inputs, where the percentage reporting was 10-20% (Table on next page):

(Table on next page)

National Demonstration Programme

Methods of Training Supported by Field Day Trainees

Item of Training	Total No. of trainees	Methods of Training									
		Demonstration/Field Training	Film shows & slides	Charts/Maps	Blackboard	Lectures	Group discussions	Practical training	Free discussion	Conducting of exhibitions	
1	2	3	4	5	6	7	8	9	10	11	
1. Multiple cropping	717	229	22	4	46	626	14	49	22	-	
2. Seeds/sowing	719	234	23	28	59	642	10	55	40	-	
3. Fertilisers Adoption	732	235	22	14	72	640	25	90	43	-	
4. P.P Measures	690	245	22	23	68	601	21	64	43	-	
5. Irrigation facilities	633	119	19	-	30	602	1	40	38	-	
6. Soil management	489	59	23	2	49	459	1	53	26	-	
7. Farm Mechanisation	445	69	20	-	47	391	14	35	34	-	
8. Handling/Storage of inputs	403	31	18	1	50	385	1	15	20	-	

From the responses of demonstration plot holders it is interesting to note that the use of audio-visual aids was limited to the initial training camp exclusively. In subsequent camps, "Lectures",

"Demonstrations/Field Training", and "Group Discussions" were the methods mainly used for training (Table below):

National Demonstration Programme

Methods of Training Reported by N.D. Plot Holders

	1	2	3	4	5	6	7	8	9	10	11
	Demon- strations/ Field Train- ing	Film shows/ slides	Char- ts and Maps	Black- Board	Lec- tu- res/ Group	Group dis- cu- ssions	Prac- tical train- ing in use of impro- ved imple- ments	Free dis- tri- bu- tion of pa- mph- & li- tere- ture	Con- duc- ting of exhi- bi- tions & fairs	Total re- pon- ses	
First Train- ing Camp	Nos. 94	5	2	5	110	30	3	21	1	271	
	% 34.7	1.8	0.7	1.8	40.6	11.1	1.1	7.7	0.4	100.0	
Subse- quent Train- ing Camps	Nos. 60	-	-	-	60	20	-	7	-	151	
	% 39.7	-	-	-	42.4	13.2	-	4.6	-	100.0	
Total	Nos. 154	5	2	5	174	50	3	28	1	422	
Respon- ses	% 36.5	1.2	0.5	1.2	41.2	11.8	0.7	6.6	0.2	100.0	

NE - Percentages as of corresponding row totals at Col. 11.

4.26 One reason why practical training and actual demonstrations were not as frequently reported as one would expect from training being given at the demonstration site, is that training for a particular item or operation was not always given at the appropriate crop stage, because the training was not held then. Since few training camps were held at a particular demonstration plot, the training had necessarily to be mainly theoretical if the coverage

of topics was to be wide. To that extent there was little qualitative difference between training at the actual site and institutional training; the drawbacks of classroom training were not avoided.

4.27 Problems and suggestions: The farmers attending the field training camps were asked if they had faced any problems regarding understanding, etc. during the training. Only 15-30% reported some difficulty (Annexure Table 7); larger numbers reporting difficulties with regard to training in Plant Protection Measures, Soil Management and Fertiliser Adoption. The common complaint was that the training was too theoretical and not practical oriented, as well as that the language was too technical. Language difficulties were reported particularly for training in fertiliser adoption and plant protection measures. Suggestions in this regard were offered by a slightly larger number of trainees, than had expressed difficulties. It is seen that the most common suggestion was for making the training more practical oriented, followed by the suggestion that the language should be simpler and non-technical. The use of demonstrations and audio-visual aids for training were also suggested.

4.28 Follow-ups: As in the case of the Farmers' Training Programme, so also under the National Demonstration Programme, follow-up measures after training were reported to be largely lacking (Table on next page). The Subject Matter Specialists, of course, took the stand that follow-up work was not within their responsibilities, and it was for the F.T. Centre and agricultural extension machinery to look to it. Without meaning to apportion blame, the fact remains that in the absence of requisite follow-up measures the likelihood of non-adoption and consequent wastage of the training effort increases.

National Demonstration Programme

Distribution of Trainers Reporting No Follow-up

S. No.	Item		Total No. Reporting	No. reporting no follow-up
1	2		3	4
1.	Multiple cropping	Nos. %	641	505 78.7
2.	Seeds/sowing	Nos. %	661	449 67.9
3.	Fertilisers adoption	Nos. %	664	445 67.0
4.	P.P. Measures	Nos. %	631	465 73.6
5.	Irrigation practices	Nos. %	573	460 80.2
6.	Soil management	Nos. %	457	404 88.4
7.	Farm mechanisation	Nos. %	396	358 90.4
8.	Handling/storage of inputs	Nos. %	375	332 88.5

4.29 Adoption: In the final analysis the impact of the National Demonstration Programme might be judged by the number of farmers who had adopted the various improved practices propagated. Annexure Table 5 gives information of the farmers who received field training at the National Demonstration sites, and columns 11, 12 & 13 of the table show the extent to which these farmers were induced into adopting the various practices. Out of all the farmers who attended the field training camps, only between 7.5% (Farm Mechanisation) and 24.5% (Fertiliser Adoption) had adopted the various recommended

practices. However, these percentages are not of the numbers (of farmers) who either did not receive training in particular items (Col.4) and, therefore, could not have been influenced by it, or had considered the particular items of training as not relevant to their households or farms (Col.6). If we ignore these two types of respondents, that is consider only those who underwent the training and at the same time considered the training as relevant, then the percentage of trainees adopting the recommended practices as a consequence of the training (Col.13) goes upto between 15.1% (Farm Mechanisation) and 29.1% (Fertiliser Adoption). Even this net rate of adoption is not very impressive. One reason for this was that substantial proportions of the farmers attending the training had already been practising the recommended practices even before the particular field training camps (Cols. 8, 9 & 10). For instance, 71.2% of the farmers who were given training in irrigation practices and for whom the training was meaningful, had already adopted the recommended practices; the potential for inducing adoption was initially low.

4.30 Examination of the size-group-wise behaviour of (net) adopters (Col.13) for each item of training reveals the significant fact that in all cases, except for Soil Management and Multiple Cropping, the rate of adoption was inversely related to the size of holding. This is largely explained by the fact that for trainees who were adopters even prior to the training, the proportion increased with the increase in size of holding (Col.10). This explains why the size group-wise distribution of (net) non-adopters (Col.16) also showed generally an inverse relationship with rate of non-adoption. In other words,

though the proportions of non-adopters fell with a rise in size of holding, yet because the potential for further adoption was much greater amongst the smaller than the bigger farmers, the rate of adoption by farmers also fell with a rise in size of holdings.

The obvious implication is that the smaller farmers should be given preference in the matter of training.

4.31 Another aspect of the issue which might be considered is the rate of adoption of the recommended practices, irrespective of whether this was before or after training. It is observed that adoption rate was better for larger than the smaller farmers, for all items of training except Multiple Cropping both with respect to overall number of trainees (Cols. 9 + 12) and with respect to farmers actually trained who had also considered the training as relevant (Cols. 10 + 13). This would suggest that the bigger farmers had taken up the improved practices more readily than the smaller ones. Size-wise break-up of non-adopters (Cols. 15 & 16) also leads to the conclusion that the bigger farmers were more responsive to the training.

4.32 Reasons for Non-adoption: The reasons for non-adoption, put forward by farmers who attended the training in the particular item and considered it relevant, may be seen in Annexure Table 8. The importance of different reasons varied from item to item of training and no common pattern could be observed; except that the high cost involved in adopting the recommended practices (Col. 3) was mentioned for all the items though with varying frequencies but invariably with the 'Large' households/farmers mentioning this reason relatively more frequently than either the 'Medium' or 'Small' household/farmer. That this response is not matched in frequency by what might have been expected to be an associated

reason - non-availability of credit/financial assistance (Col.5) - suggests that most of these farmers considered the recommended practices as not economically viable. (It is interesting to note that the percentage of 'small' farmers mentioning non-availability of credit/financial assistance as a reason for non-adoption was invariably higher than the percentage of 'Larger' farmers - but not always 'Medium' farmers - citing the same reason).

4.33 Taking the reasons for non-adoption item by item of training, one finds that the major reason put forward for not adopting the recommended Multiple Cropping practices was the inadequate availability of water (Col.12), in association with the related reasons of lack of adequate facility (col.6) and unsuitability for the farm/household (Col.11). These three reasons along with a fourth - no local market for the recommended crops (Col.14) - accounted for over 60% of the responses, and together point to the fact that crop rotations recommended did not always fit in with the local agro-economic conditions. The complaint of high cost involved by 14.5% with only 4.6% complaining of lack of credit/financial assistance again point to inadequate consideration being given to the question of economic viability.

4.34 With regard to seeds/sowing practices, the major reason was high cost involved (43.6%) owing usually to the more labour intensive methods recommended. Inconvenience was also frequently cited - under 'Other reasons' (Col.18). However, with only 11% non-adopters, the magnitude of the problem was not very great 1/.

1/ Annexure Table 5.

4.35 For Fertiliser Adoption high cost involved was the overwhelming cause (55.5%) for non-adoption, followed by non-availability of credit/financial assistance (14.5%) and inadequate water (10.4%).

4.36 High costs were again cited most commonly (42.4%) as the reason for not adopting the recommended Plant Protection Measures, though only 8.1% complained of non-availability of credit/financial assistance. However, reasons such as lack of specific knowledge (8.6%) not being suitable for the farm (7.6%), no guidance/assistance from official agency (5.1%), and lack of adequate facility (6.1%), though not mentioned all too frequently, yet indicate a lacuna in the training and/or follow-up measures.

4.37 As far as Irrigation practices are concerned, inadequate availability of water (37.3%) and unsuitability for the farm (13.4%) account for most of the responses, though not one 'Large' farmer has cited this reason. The other important reason is the high cost (26.9%); which is the only reason for non-adoption mentioned by large farmers. However, non-adopters of recommended irrigation practices were relatively few, at 13.9% ^{3/}.

4.38 Training in Soil Management appears to have been one of the weak spots of the training programme; as high as 53.8% of the trainees remained non-adopters even after the training ^{3/}. The main reason for non-adoption was the lack of guidance/assistance from official agencies (37.5%), along with lack of adequate facility (16.5%) and lack of specific knowledge (6.5%); all pointing to failings in the training and/or follow-up efforts. The high cost involved (23.3%) was the second most important reason given for non-adoption.

4.39 Farm Mechanisation as an item of training was not very frequently taken up, only about 50% of the trainees reporting training in it. The 18.0% of these trainees who were non-adopters explained mostly of the high cost (61.8%) and lack of credit/financial assistance (19.7%) which together explain almost everything. It is interesting to note that only an insignificant few (3.9%) of the responses cited "unsuitability to the farm" as the reason for non-adoption.

4.40 The training in Handling/Storage of Inputs was reported by an even smaller proportion of the farmer trainees than for Farm Mechanisation 4%. After 'high cost involved' (27.2%), the most important reason for non-adoption mentioned was lack of specific knowledge (23.5%) which is a failing of the training given.

4.41 From the reasons given for non-adoption it is evident that most of this form of 'wastage' was of an impermanent nature, and could be changed by appropriate follow-up measures. Where lack of credit, guidance, specific knowledge, adequate facility or even adequate water were cited as the reasons for non-adoption, the provision of requisite facilities and services would enable many more farmers to adopt the various recommended practices. This only underlines the importance of follow-up measures, something that had consistently been found to be lacking.

Chapter V

COORDINATION IN THE FARMERS' TRAINING AND NATIONAL DEMONSTRATION PROGRAMME

Coordination for Production:

The ultimate aim of the overall Farmers' Education Programme, comprising the Farmers' Training and National Demonstration Programmes, is to achieve increased agricultural production, by equipping the farmers with the technical know-how needed for adopting the latest agricultural technology. To achieve this, it is essential that the Farmers' Training and National Demonstration Programmes, work with and through the normal agricultural administrative machinery of the State, which is responsible for the agricultural production programme. The need for such coordination can hardly be over-emphasised. Once the training programmes have technically equipped the cultivators in an area, the normal agricultural administrative machinery must follow-up by providing the required inputs and facilities which the farmers will begin to require. Such inputs and services as certified seeds, recommended fertilizers and plant protection materials, soil testing facilities and even credit must be made available to the cultivators if the full potential created by the training effort is to be exploited for increasing agricultural production. Yet a consistently large percentage of trainees had reported no follow-up measures being taken after the training. Similarly, the reasons for non-adoption of the recommended practices taught, reported by trained farmers, very often pointed to this lack of follow-up support. The agricultural extension agencies - the Development Block Offices - almost invariably disclaimed any responsibility for following up the efforts of the training agencies;

the training agencies too seemed to ^{vigourly} only visualise the need for a follow-up after the training, their goal being limited to the proximate one of imparting training.

Coordination for Training.

5.2 The other aspects of coordination that the Study enquired into was between the agencies individually responsible for the Farmers' Training Programme and the National Demonstration Programme. In the selected districts the Farmers' Training Programme was being implemented by the F.T. Centres of the State Agricultural Departments, while the National Demonstration Programme was mostly the responsibility of Agricultural Universities or Institutes 1/. Consequently, at the implementation level (district level) too, ^{functionaries} the ~~responsibilities~~ of the two programmes were under separate control. Study was made to find out the extent of coordination achieved in these circumstances, since one of the important aims of the National Demonstration Programme was to provide visual or practical support to the F.T. Programme.

5.3 It was observed that in most cases coordination between the Farmers' Training Centre staff and the team of Subject Matter Specialists of the National Demonstration Programme was non-existent. Generally, each was busy in achieving its own targets, without caring to consult the other. The SMS teams had only to account for the number and success of the national demonstrations laid to their controlling authorities, and, therefore, felt no responsibilities for the training aspect. Sometimes, the programme of visits chalked out by an SMS team would be sent to the corresponding F.T. Centres for organising training camps. But the complaint

was also heard from the Farmers' Training Centre staff that after a field day had been arranged by them, according to such a programme, the SMS team had not stuck to it - much to the embarrassment of the F.T. staff. On their part too the F.T. Centres were not seriously bothered about holding their peripatetic training necessarily at a national demonstration plot, since they were only required to hold a given number of training camps, irrespective of the exact site.

5.4 There was also no coordinated effort apparent in the manner in which different areas within a district were covered by the two programmes. The idea of having a national demonstration plot as a nucleus around which secondary demonstrations would be laid with the help of the F.T. staff remained on paper only. That national demonstrations might be laid in those villages which had been benefited by, say, short-term or other training courses (so that a concerted effort is made), or some such other common strategy, never seemed to be a consideration in the selections made. Each programme ran its own independent course guided by the best judgement and convenience of the implementing agencies; which was no guarantee that the common interest was thus being best served.

5.5 In those States (Karnataka, Orissa, Punjab) and districts (Gwalior and Raipur in M.P. and Lucknow and Ghazipur in U.P.) whose coordination was observed to be good, it was generally due to good personal relations between the F.T. staff and SMS teams, rather than as a result of some institutionalised arrangement. However, in Karnataka, where both the programmes were being implemented by the State Agricultural Department, good coordination was

achieved as a result of the SMS teams being located at the F.T. Centres. Similarly, in Lucknow district of U.P. it was observed that coordination was achieved between the F.T. staff and the SMS teams because both were included in the district level coordination committee which was fairly active. It is obviously necessary to have some such formal arrangement to ensure coordination between the implementing agencies rather than to depend on personal relations to achieve this.

Coordination Committees:

5.6 Both the programmes envisaged setting up coordination committees at the State and district levels, but these were more for sorting out other organisational, administrative and technical problems - each committee for its own programme - rather than for coordinating the efforts of the two programmes. And even most of these coordination committees, both at the State and district levels, formed at the instance of the Directorate of Extension or ICAR, were found to be inactive. The senior officials like Commissioners, Secretaries, Directors and Departmental Heads who constituted such committees at State level hardly had time for devoting close and sustained attention to these two programmes because of their other multifarious responsibilities. Often meetings of the committees could not be arranged because some one or the other member was just not available.

5.7 The composition of district level committees varied from State to State, usually with the district level officials of the agriculture, panchayat, community development and cooperation departments, and representatives of the AIR and of the F.T. Centres

and N.D. Programme. The Member Secretaries were generally the District Training Officers or the Leaders of the SMS teams for the concerned district level committees. The chairmanship of these committees was held by officials who varied from State level officials like the Development Commissioner and Joint Director of Agriculture (Madhya Pradesh) to district level officials like the District Collector (U.P.) and District Development Officer (Gujarat). The level of activity of these district committees depended mainly on the enthusiasm and position of the Chairman. For instance, it was observed in Agra district of U.P. that the district committee was active and doing useful work because the District Magistrate was the Chairman and taking keen interest in its functioning.

The allocation of districts to agricultural universities for purposes of conducting the National Demonstration Programme was a later innovation; earlier the Programme was being conducted by the State Agricultural Departments only. The change was gradual. In some States, viz. Gujarat & Kerala, in our Study, the control of the N.D. Programme was still with the agricultural department at the time of the Study. Apart from these in the selected districts of Karnataka, Tamil Nadu, U.P. and West Bengal the N.D. Programme was under the Agricultural Department.

PROJECT TEAM

Headquarter's

1. Agriculture Economic Divisior

1. Shri S.B. Saharya	Joint Director
2. " G.A. Sastry	Deputy Director
3. " R.F. Singh	- do -
4. " M.N. Varughese	- do -
5. " P.N. Deb	Assistant Director
6. " J.D. Porwal	Eco. Inv. Gr. I
7. " R. Nagmann Rao	Eco. Inv. Gr.II
8. " Sohan Lal	P.A.

2. Computer Centre

1. Shri R.C. Chanda	Joint Director
2. " Prem Kumar	Programmer

3. Field (£)

R.E.O. Bombay

Shri R.N. Vishnoi

P.E.O. Poona	Shri K.T. Upadhyaya
P.E.O. Nagpur	Shri M.G. Kshir Sagar
P.E.O. Aurangabad	Shri M.A. Madiwala
P.E.O. Shimoga	Shri K.T. Shetty
P.E.O. Bangalore	Shri P.M. Rangasami
P.E.O. Gulbarga	Shri K. Srikant
P.E.O. Rajkot	Shri B. Kaul
P.E.O. Ahmedabad	Shri V.V. Oak

R.E.O., Calcutta

Shri M.C. Mukerjee

P.E.O., Gauhati	Shri P.N. Deb
P.E.O., Cuttuck	Shri B.K. Tripathy
P.E.O., Sambalpur	Shri V.K. Kalvade
P.E.O., Burdwan	Shri N. Das Gupta

R.E.O., Chandigarh

Shri P.C. Anand

P.E.O., Hissar	Shri N.K. Sharma
P.E.O., Ludhiana	Shri M.S. Narula
P.E.O., Jaipur	Shri Hari Ram
P.E.O., Jodhpur	Shri Veer Chandra

R.E.O., Lucknow

Shri V.V. Jetly

P.E.O., Jhansi	Shri B.L. Verma
P.E.O. Varanasi	Shri A.S. Srivastava
P.E.O., Rampur	Shri B.P. Verma
P.E.O., Patna	Shri I.S. Kumar
P.E.O., Muzaffarpur	Shri C.P. Bhatia
P.E.O., Hazaribagh	Shri V.P. Luthra
P.E.O., Indore	Shri S.S. Jain
P.E.O., Bhopal	Shri S.S. Rawat

R.E.O. Madras

Shri I.V. Ranga Rao

P.E.O., Hyderabad

P.E.O. Eluru

P.E.O., Anantpur

P.E.O., Kozhikode

P.E.O., Trivandrum

P.E.O., Erode

P.E.O., Madurai

Shri V. Rama Rao

Shri V. Rama Rao

Shri T. Narayana

Shri M.M. Varughese

Shri K.T. Verkoy

Shri E.N. Chandrasekharan

Shri N. Muthukrishan

(£) Along with their Investigating Staff.

Short Term Training for Farmers

Annexure Table - 1

Item-wise Distribution of Adopters and Non-Adopters

Item of training	Size of House hold	Total Respondents reporting					Respondents reporting Training on relevant					Non-Adopters			
		No. of H.H.	No. Training	% (A)	Training NR	% (A)	Prior to training	% (A)	% (B)	After training	% (A)	% (B)	No.	% (A)	% (B)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Multiple Cropping	Small	135	19	14.1	20	14.8	40	29.6	41.6	14	10.4	14.6	42	31.1	43.8
	Medium	152	6	3.9	16	10.5	62	40.8	47.7	29	19.1	22.3	39	25.7	30.0
	Large	46	1	3.2	3	6.5	21	45.7	50.0	5	10.9	11.9	16	36.8	38.1
	<u>Total</u>	<u>333</u>	<u>26</u>	<u>7.8</u>	<u>39</u>	<u>11.7</u>	<u>123</u>	<u>36.9</u>	<u>45.9</u>	<u>48</u>	<u>14.4</u>	<u>17.9</u>	<u>97</u>	<u>29.1</u>	<u>36.2</u>
2. Seeds/Sowing	Small	135	1	0.7	7	5.2	78	57.8	61.4	32	23.7	25.2	17	12.6	13.4
	Medium	152	2	1.3	-	-	96	63.2	64.0	39	25.7	26.0	15	9.9	10.0
	Large	46	1	2.2	-	-	37	80.4	82.2	7	15.2	15.6	11	2.2	2.2
	<u>Total</u>	<u>333</u>	<u>4</u>	<u>1.2</u>	<u>7</u>	<u>2.1</u>	<u>211</u>	<u>63.4</u>	<u>65.5</u>	<u>78</u>	<u>23.4</u>	<u>24.2</u>	<u>33</u>	<u>9.9</u>	<u>10.2</u>
3. Fertilizer adoption	Small	135	-	-	2	1.5	73	54.1	54.9	32	23.7	24.1	28	20.7	21.1
	Medium	152	2	1.3	-	-	87	57.2	58.0	40	26.3	26.7	23	15.1	15.3
	Large	46	1	2.2	-	-	30	65.2	66.7	10	21.7	22.2	5	10.9	11.1
	<u>Total</u>	<u>333</u>	<u>3</u>	<u>0.9</u>	<u>2</u>	<u>0.6</u>	<u>190</u>	<u>57.1</u>	<u>57.9</u>	<u>82</u>	<u>24.6</u>	<u>25.0</u>	<u>56</u>	<u>16.8</u>	<u>17.1</u>
4. P.P.Measures	Small	135	-	-	5	3.7	69	51.1	53.1	32	23.7	24.6	29	21.5	22.3
	Medium	152	2	1.3	1	0.7	74	48.7	49.7	35	23.0	23.5	40	26.3	26.8
	Large	46	1	2.2	-	-	29	63.0	64.4	9	19.6	20.0	7	15.2	15.6
	<u>Total</u>	<u>333</u>	<u>3</u>	<u>0.9</u>	<u>6</u>	<u>1.8</u>	<u>172</u>	<u>51.7</u>	<u>53.1</u>	<u>76</u>	<u>22.8</u>	<u>23.5</u>	<u>76</u>	<u>22.8</u>	<u>23.5</u>
5. Irrigation Practicos	Small	135	17	12.6	22	16.3	68	50.4	70.8	9	6.7	9.4	19	14.1	19.8
	Medium	152	21	13.8	17	11.2	85	55.9	74.6	18	11.8	15.8	11	7.2	9.6
	Large	46	3	6.5	2	4.3	27	58.9	65.9	6	13.0	14.0	8	17.4	19.5
	<u>Total</u>	<u>333</u>	<u>41</u>	<u>12.3</u>	<u>41</u>	<u>12.3</u>	<u>180</u>	<u>54.1</u>	<u>71.7</u>	<u>33</u>	<u>9.9</u>	<u>13.1</u>	<u>38</u>	<u>11.4</u>	<u>15.1</u>
6. Soil Management	Small	135	27	20.0	4	3.0	29	21.5	27.9	12	8.9	11.5	63	46.7	60.6
	Medium	152	29	19.1	6	3.9	34	22.4	29.1	27	17.8	23.1	56	36.8	47.9
	Large	46	6	13.0	1	2.2	14	30.4	35.9	5	10.9	12.8	20	43.5	51.3
	<u>Total</u>	<u>333</u>	<u>62</u>	<u>18.6</u>	<u>11</u>	<u>3.3</u>	<u>77</u>	<u>23.1</u>	<u>29.6</u>	<u>44</u>	<u>13.2</u>	<u>16.9</u>	<u>139</u>	<u>41.7</u>	<u>53.5</u>

Contd.....

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
7. Farm Mecha- nisation	Small	135	22	16.3	8	5.9	39	28.9	37.1	20	14.8	19.0	46	34.1	43.8
	Medium	152	18	11.8	11	7.2	66	43.4	53.7	29	19.1	23.6	28	18.4	22.8
	Large	46	5	10.9	2	4.3	25	54.3	64.1	6	13.0	15.4	8	17.4	20.5
	<u>Total</u>	<u>333</u>	<u>45</u>	<u>13.5</u>	<u>21</u>	<u>6.3</u>	<u>130</u>	<u>39.0</u>	<u>48.7</u>	<u>55</u>	<u>16.5</u>	<u>20.6</u>	<u>82</u>	<u>24.6</u>	<u>30.7</u>
8. Handling/ storage of inputs	Small	135	24	17.8	3	2.2	53	39.3	49.1	26	19.3	24.1	29	21.4	26.9
	Medium	152	29	19.1	4	2.6	55	36.2	46.2	38	25.0	31.9	26	17.1	21.8
	Large	46	7	15.2	1	2.2	16	34.8	42.1	7	15.2	18.4	15	32.6	39.5
	<u>Total</u>	<u>333</u>	<u>60</u>	<u>18.0</u>	<u>8</u>	<u>2.4</u>	<u>124</u>	<u>37.2</u>	<u>46.8</u>	<u>71</u>	<u>21.3</u>	<u>26.8</u>	<u>70</u>	<u>21.0</u>	<u>26.4</u>

N.B. (i) Percentages (A) in cols, 5,7,9,12 and 15 as of col.3

(ii) Percentages (B) in cols. 10,13 and 16 as of col.3 minus cols.4 & 6, i.e. in relation to number of farmers actually trained and reporting the training to be relevant.

Short Term Training for Farmers

Reason for non-adoption by Short Term Trainees

Item of Training	Size of House-hold	Reasons for non-adoption (Percentages of Responses)							
		High cost involved	Skilled labour not available	Credit/financial assistance not available	Lack of adequate facilities	N.A. on purchase	N.A. of the desired recommended quality/variety	N.A. at convenient distance	No guidance/assistance from official agencies
1	2	3	4	5	6	7	8	9	10
1. Multiple Cropping	Small	3.8	-	1.9	11.3	-	-	-	-
	Medium	8.0	-	4.0	6.0	-	-	-	4.0
	Large	8.7	-	26.1	13.0	-	-	-	-
	Total	6.3	-	7.1	9.5	-	-	-	1.6
2. Seed/Sowing	Small	52.4	14.3	-	4.8	-	-	4.8	-
	Medium	25.0	12.5	-	-	-	18.8	-	6.3
	Large	-	-	-	-	-	-	-	-
	Total	39.5	13.2	-	2.6	-	7.9	2.6	2.6
3. Fertilizer adoption	Small	62.9	-	22.9	2.9	-	2.9	-	-
	Medium	45.7	-	20.0	5.7	-	-	2.9	-
	Large	25.0	-	50.0	-	-	-	-	-
	Total	51.3	-	24.4	3.8	-	1.3	1.3	-
4. P.P. Measures	Small	37.5	3.1	9.4	6.3	-	-	3.1	-
	Medium	34.0	-	10.0	8.0	-	-	10.0	2.0
	Large	12.5	-	25.0	-	-	-	12.5	-
	Total	33.3	1.1	11.1	6.7	-	-	7.8	1.1
5. Irrigation Practices	Small	-	-	-	15.8	-	-	-	-
	Medium	-	-	-	10.0	-	-	-	-
	Large	-	-	25.0	-	-	-	-	-
	Total	-	-	3.0	12.1	-	-	-	-
6. Soil Management	Small	19.4	-	6.0	10.4	-	-	-	56.7
	Medium	12.5	-	-	8.9	-	-	8.9	55.4
	Large	15.8	-	10.5	15.8	-	-	-	21.1
	Total	16.2	-	4.2	10.6	-	-	3.5	51.4
7. Farm Mechanization	Small	51.0	32.7	6.1	-	-	3.5	-	-
	Medium	42.4	18.2	6.1	3.0	-	2.0	-	6.1
	Large	66.7	22.2	-	11.1	-	12.1	-	-
	Total	49.5	-	26.4	5.5	2.2	-	5.5	2.2
8. Handling/Storage of input	Small	51.6	-	3.2	12.9	-	-	-	3.2
	Medium	20.7	-	3.4	13.8	-	-	-	10.3
	Large	21.1	-	-	15.8	-	-	-	-
	Total	32.9	-	2.5	13.9	-	-	-	5.1

Note: Responses in Cols. 3. to 17 are not mutually exclusive.

Item of Training	Size of Household	Reasons for non-adoption (Percentages of Responses)							Total responses(N)
		Not suitable for his farm household	Inadequate availability of water	Inadequate space	No local market	Fear of adverse effects	Lack of specific knowledge	Other reasons	
1	2	11	12	13	14	15	16	17	18
1. Multiple Cropping	Small	11.3	41.5	3.8	-	-	1.9	24.5	53
	Medium	12.0	42.0	2.0	2.0	6.0	-	14.0	50
	Large	-	39.1	-	4.3	4.3	-	4.3	23
	<u>Total</u>	<u>9.5</u>	<u>41.3</u>	<u>2.4</u>	<u>1.6</u>	<u>3.2</u>	<u>0.8</u>	<u>16.7</u>	<u>126</u>
2. Seed/Sowing	Small	9.5	4.8	-	-	-	-	9.5	21
	Medium	12.5	-	-	-	-	-	25.0	16
	Large	100.0	-	-	-	-	-	-	1
	<u>Total</u>	<u>13.2</u>	<u>2.6</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>15.8</u>	<u>38</u>
3. Fertilizer adoption	Small	-	-	-	-	-	-	8.6	35
	Medium	11.4	5.7	-	-	2.9	-	5.7	35
	Large	-	12.5	-	-	-	-	12.5	8
	<u>Total</u>	<u>5.1</u>	<u>3.8</u>	<u>-</u>	<u>-</u>	<u>1.3</u>	<u>-</u>	<u>7.7</u>	<u>78</u>
4. P.P. Measures	Small	12.5	3.1	-	-	6.3	-	18.8	32
	Medium	12.0	2.0	-	-	4.0	2.0	16.0	50
	Large	12.5	12.5	-	-	12.5	-	12.5	8
	<u>Total</u>	<u>12.5</u>	<u>3.3</u>	<u>-</u>	<u>-</u>	<u>5.6</u>	<u>1.1</u>	<u>16.7</u>	<u>90</u>
5. Irrigation practices	Small	36.8	42.1	-	-	-	-	5.3	19
	Medium	-	80.0	-	-	-	-	10.0	10
	Large	-	50.0	-	-	-	-	25.0	4
	<u>Total</u>	<u>21.2</u>	<u>54.5</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>9.1</u>	<u>33</u>
6. Soil Management	Small	1.5	-	-	-	-	-	6.0	67
	Medium	-	-	-	-	-	1.8	12.5	58
	Large	-	-	-	-	-	5.3	31.6	19
	<u>Total</u>	<u>0.7</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>1.4</u>	<u>12.0</u>	<u>142</u>
7. Farm Mechanisation	Small	4.1	-	-	-	-	-	4.1	49
	Medium	9.1	-	-	-	-	3.0	-	33
	Large	-	-	-	-	-	-	-	9
	<u>Total</u>	<u>5.5</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>1.1</u>	<u>2.2</u>	<u>91</u>
8. Handling/Storage of inputs	Small	12.9	-	3.2	-	-	-	12.9	31
	Medium	20.7	-	6.9	-	-	-	24.1	29
	Large	5.3	-	31.6	-	-	-	26.3	19
	<u>Total</u>	<u>13.0</u>	<u>-</u>	<u>11.4</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>20.3</u>	<u>79</u>

N.B.- Responses in Cols. 3 to 17 are not mutually exclusive

Charchamandals: Members established in Selected Districts (Upto 1971-73) and Number of Trained Convenors

State	District	Number of Charchamandals			No. of trained Convenors	Remarks
		Male	Female	Total		
1	2	3	4	5	6	7
Andhra Pradesh	Chittoor	462	45	507	227	
	Hyderabad	207	36	243	98	
	W. Godavari	NA	NA	300	137	
Assam	Kamrup	243	52	300	51	
Bihar	Barhanga	15*	6	21	21	*148 CMs established in another district.
	Purnea	190	-	190	129	
	Shahabad	315	4	319	168	
Gujarat	Bulsar	261	-	261	NA	
	Jamnagar	334	14	348	59	
Haryana	Rohtak	203	97	300	220	
Karnataka	Balgaum	NA	NA	NA	51	
	Georg	57	47	104	65	
	Raichur	NA	NA	NA	188	
Kerala	Trichur	267	151	418	224	
	Trivandrum	321	150	471	270	
Madhya Pradesh	Gwalior	230	74	304	171	
	Rajpur	93	20	113	134	
Maharashtra	Akola	NA	NA	304	172	
	Aurangabad	NA	NA	361	161	
	Kolaba	NA	NA	NA	110	
Orissa	Puri	136	43	179	9	
	Sambalpur	315	25	350	154	
Punjab	Amritsar	112	83	195	143*	*Upto 1970-71
Rajasthan	Jaipur	364	3	367	155	
	Kota	66	-	66	69	
Tamil Nadu	Coimbatore	327	147	474	250	
	Tanjore	259	54	313	173*	*Upto 1970-71
Uttar Pradesh	Agra	249	51	300	128	
	Ghaziipur	252	50	302	199	
	Lucknow	NA	NA	280*	200	*Net of 80 CMs dis-recognised.
West Bengal	Burdwan	248	4	350	29	

Shuchama-ndals Distribution of Frequency of Attendance at Meetings

State	Total 'No. of 'men- 'bers'	Frequency of attendance reported						
		'Daily 'a week'	'Twice 'a week'	'Weekly 'ly	'Fort- 'night- 'ly	'Monthly 'ly	'Very in- 'frequent- 'ly	'Never'
1	2	3	4	5	6	7	8	9
Andhra Pradesh	96	-	-	10 (10.4)	7 (7.3)	4 (4.2)	18 (18.4)	57 (59.4)
Assam	36	-	-	12 (33.3)	20 (55.6)	4 (11.1)	-	-
Bihar	102	-	4 (3.9)	7 (6.9)	12 (11.8)	52 (51.0)	25 (24.5)	2 (2.0)
Gujarat	65	-	-	-	-	39 (60.0)	19 (29.2)	7 (10.8)
Haryana	53	39 (73.6)	4 (7.5)	9 (17.0)	-	1 (1.9)	-	-
Kerala	45	-	1 (2.2)	18 (40.0)	8 (17.8)	8 (17.8)	7 (15.5)	3 (6.7)
M.P.	45	-	4 (8.9)	4 (8.9)	-	4 (8.9)	8 (17.7)	25 (55.6)
Maharashtra	107	-	-	7 (6.5)	40 (37.4)	39 (36.4)	15 (14.0)	6 (5.6)
Karnataka	107	-	-	7 (6.5)	5 (4.7)	84 (78.5)	10 (9.4)	1 (0.9)
Orissa	100	-	-	27 (27.0)	11 (11.0)	35 (35.0)	27 (27.0)	-
Punjab	28	-	-	8 (100.0)	5	15	-	-
Rajasthan	28	-	-	8 (28.6)	5 (17.9)	15 (53.6)	-	-
Tamil Nadu	49	-	-	-	-	1 (2.0)	32 (65.3)	16 (32.7)
U.P.	147	-	2 (1.4)	1 (0.7)	38 (25.9)	28 (19.0)	59 (40.1)	19 (12.9)
West Bengal	42	-	-	-	-	42 (100.0)	-	-
Total:	1050	39 (3.7)	15 (1.4)	132 (13.1)	136 (13.9)	356 (33.9)	220 (20.9)	135 (13.0)

NB: Percentages in brackets as of row totals at Col. 2.

National Demonstration Programme

Itemwise Distribution of Adopters and Non-Adopters of N.D. Field day Training

Item of Training	Size of Household	Total No. of Households	Respondent Reporting				Respondents reporting training as relevant								
			No Training		Training		Adopters			Non-adopters					
			No.	% (A)	No.	% (B)	Prior to training		After training	No.		% (C)	% (D)		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Multiple Cropping	Small	218	32	14.7	27	12.4	69	31.7	43.4	32	14.7	20.1	58	26.6	36.5
	Medium	367	54	14.7	30	8.2	118	32.2	41.7	76	20.7	26.9	89	24.3	31.4
	Large	134	10	7.5	17	12.7	45	33.6	42.1	22	16.4	20.0	40	29.9	37.4
	<u>Total</u>	<u>719</u>	<u>96</u>	<u>13.4</u>	<u>74</u>	<u>10.3</u>	<u>232</u>	<u>32.3</u>	<u>42.5</u>	<u>150</u>	<u>20.9</u>	<u>23.7</u>	<u>167</u>	<u>23.0</u>	<u>34.1</u>
2. Seeds/sowing	Small	218	29	13.3	16	7.3	92	42.2	53.2	59	27.1	34.1	22	10.1	12.7
	Medium	367	44	12.0	16	4.4	200	54.5	65.1	70	19.1	22.8	37	10.1	12.1
	Large	134	13	9.7	12	9.0	80	59.7	75.4	22	16.4	20.2	7	5.2	6.4
	<u>Total</u>	<u>719</u>	<u>86</u>	<u>12.0</u>	<u>44</u>	<u>6.1</u>	<u>372</u>	<u>51.7</u>	<u>63.2</u>	<u>151</u>	<u>21.0</u>	<u>25.6</u>	<u>66</u>	<u>9.2</u>	<u>11.2</u>
3. Fertilizer adoption	Small	218	17	7.8	11	5.0	81	37.2	42.6	65	29.8	31.2	44	20.2	25.2
	Medium	367	50	13.6	13	3.5	141	58.4	46.4	91	24.8	24.9	72	19.6	23.7
	Large	134	11	8.2	13	9.7	73	56.7	69.1	20	14.9	18.2	14	10.4	12.7
	<u>Total</u>	<u>719</u>	<u>78</u>	<u>10.8</u>	<u>37</u>	<u>5.1</u>	<u>295</u>	<u>41.4</u>	<u>49.3</u>	<u>176</u>	<u>24.5</u>	<u>29.1</u>	<u>130</u>	<u>18.1</u>	<u>21.5</u>
4. P.P. Measures	Small	218	32	14.7	10	4.6	62	28.4	35.2	61	28.0	34.7	53	24.3	30.1
	Medium	367	63	17.2	14	3.8	126	34.3	43.4	73	19.9	25.2	91	24.8	31.4
	Large	134	15	11.2	14	10.4	62	43.3	50.0	18	13.4	17.1	25	18.7	23.8
	<u>Total</u>	<u>719</u>	<u>110</u>	<u>15.3</u>	<u>38</u>	<u>5.3</u>	<u>250</u>	<u>34.8</u>	<u>43.8</u>	<u>152</u>	<u>21.1</u>	<u>26.6</u>	<u>169</u>	<u>23.5</u>	<u>29.6</u>
5. Irrigation Practices	Small	218	59	27.1	24	11.0	82	37.6	60.7	27	12.4	20.0	26	11.9	19.3
	Medium	367	84	22.9	27	7.4	186	50.7	72.7	37	10.1	14.5	33	9.0	12.9
	Large	134	23	17.2	13	9.7	80	59.7	81.6	9	6.7	9.2	9	6.7	9.2
	<u>Total</u>	<u>719</u>	<u>166</u>	<u>23.1</u>	<u>64</u>	<u>8.9</u>	<u>348</u>	<u>48.4</u>	<u>71.2</u>	<u>73</u>	<u>10.2</u>	<u>14.9</u>	<u>68</u>	<u>9.5</u>	<u>13.9</u>

Contd.....

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
6. Soil Management	Small	218	104	47.7	3	1.4	28	12.8	25.2	16	7.3	14.4	67	30.7	60.4
	Medium	367	141	38.4	5	1.4	62	16.9	28.1	39	10.6	17.6	120	32.7	54.3
	Large	134	35	26.1	7	5.2	33	24.6	35.9	18	13.4	19.6	41	30.6	44.6
	<u>Total</u>	<u>719</u>	<u>280</u>	<u>38.9</u>	<u>15</u>	<u>2.1</u>	<u>123</u>	<u>17.1</u>	<u>29.0</u>	<u>73</u>	<u>10.2</u>	<u>17.2</u>	<u>228</u>	<u>31.7</u>	<u>53.8</u>
7. Farm Mechanisation	Small	218	117	53.7	8	3.7	50	22.9	53.8	19	8.7	20.4	24	11.0	25.8
	Medium	367	175	47.7	8	2.2	124	33.8	67.4	27	7.4	14.7	33	9.0	17.9
	Large	134	49	36.6	4	3.0	66	49.3	81.5	8	6.0	9.9	7	5.2	8.6
	<u>Total</u>	<u>719</u>	<u>341</u>	<u>47.4</u>	<u>20</u>	<u>2.8</u>	<u>240</u>	<u>53.4</u>	<u>67.0</u>	<u>54</u>	<u>7.5</u>	<u>15.1</u>	<u>64</u>	<u>8.9</u>	<u>17.9</u>
8. Handling/storage of inputs	Small	218	121	55.5	4	1.8	41	18.8	44.1	26	11.9	28.0	26	11.9	28.0
	Medium	367	186	50.7	6	1.6	89	24.3	50.9	46	12.5	26.3	40	10.9	22.9
	Large	134	63	47.0	4	3.0	49	36.6	73.1	8	6.0	11.9	10	7.5	14.9
	<u>Total</u>	<u>719</u>	<u>370</u>	<u>51.5</u>	<u>14</u>	<u>1.9</u>	<u>179</u>	<u>24.9</u>	<u>53.4</u>	<u>80</u>	<u>11.1</u>	<u>23.9</u>	<u>76</u>	<u>10.6</u>	<u>22.7</u>

- N.B.:-
- i) Percentages in Cols. 5, 7, 9, 12 and 15 (%-A) are as of col.3, i.e. of the total number of households.
 - ii) Percentages in Cols. 10, 13 and 16 (%-B) are as of Col.3 minus Cols.4 & 6, i.e. only of those actually trained and reporting the training as relevant.

Field-day Training Camps held at each National Demonstration Plot

Demonstration			Training camps held during demonstration of												Remarks	
Type	Conducted by	Nos.	First crop				Second crop				Third crop					
			No. of training camps held per demonstration				No. of training camps held per demonstration				No. of training camps held per demonstration					
			Nil	One	Two	Three	Nil	One	Two	Three	Nil	One	Two	Three		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
One crop	i) Agricultural University/ Research Institution	9	-	7	2	-	-	-	-	-	-	-	-	-	-	N.B.: Figures in brackets are percentages
	ii) State Agricultural Department	1	-	1	-	-	-	-	-	-	-	-	-	-	-	
	Sub-Total	10 (100.0)	-	8 (61.0)	2 (20.0)	-	-	-	-	-	-	-	-	-	-	
Two Crops	i) Agricultural University/ Research Institution	26	4	11	7	4	10	6	6	4	-	-	-	-	-	As %age of Col.3
	ii) State Agricultural Department	41	18	13	3	7	14	15	5	7	-	-	-	-	-	
	Sub-Total	67 (100.0)	22 (32.8)	24 (35.8)	10 (14.8)	11 (16.3)	24 (35.6)	21 (31.1)	11 (16.3)	11 (16.3)	-	-	-	-	-	
Three Crop	i) Agricultural University/ Research Institutions	12	8	1	2	1	3	6	2	1	9	3	-	-	-	As %age of Col.3
	ii) State Agricultural Department	9	3	3	2	1	4	2	2	1	4	5	-	-	-	
	Sub-Total	21 (52.4)	11 (19.1)	4 (19.1)	4 (9.5)	2 (33.3)	7 (33.1)	8 (19.1)	4 (9.5)	2 (61.9)	13 (38.1)	8	-	-	-	
All Demonstration	i) Agricultural University/ Research Institutions	47	12	19	11	5	13	12	8	5	9	3	-	-	-	Cols.4-7 as %age of 98. Cols.8-11 as %age of 88. Cols.12-15 as %age of 21.
	ii) State Agricultural Deptt.	51	21	17	5	8	13	17	7	8	4	5	-	-	-	
	Sub-Total	98 (33.7)	33 (36.7)	36 (16.3)	16 (13.3)	13 (35.2)	29 (33.0)	29 (17.0)	15 (14.8)	13 (61.9)	13 (38.1)	8	-	-	-	

National Demonstration Programme

Annexure Table

Trainees' Problems and Suggestions

Item of Training	Total No. reporting	No. reporting problems	Problems						No. reporting suggestions	Suggestions				
			Lan- giage	Lan- giage	theo- retical	Not prac- tical	No 'de- mon- stration	Others		Jen- ga	'Should be prac- tical	'Demon- stration should be given	More use of audio- visual aids	Others
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Multiple cropping	641	99	17	9	15	24	4	37	130	22	47	11	32	18
2. Seed sowing	661	86	19	9	9	26	16	7	108	20	45	21	16	6
3. Fertiliser adoption	664	175	72	28	37	42	10	11	203	97	83	19	14	4
4. P.P. Measures	631	132	48	24	43	50	32	11	222	81	89	45	13	3
5. Irrigation facilities	573	43	14	2	7	17	3	6	59	7	36	7	10	1
6. Soil management	457	132	34	8	32	33	21	4	146	52	55	30	8	4
7. Farm mechanisation	396	75	10	6	6	31	7	16	88	15	46	15	11	2
8. Handling/Storage of inputs	375	79	13	6	6	30	13	13	89	20	40	16	10	4

NB - Responses in Cols. 4 to 9 and Cols. 11 to 15 are not mutually exclusive.

National Demonstration Programme
Reasons for Non-adoption by Field-day Trainees

Item of Training	Size of Household	Reasons for Non-adoption (Percentage of Responses)							
		High cost involved	Skilled labour not available	Credit/financial assistance not available	Lack of adequate facilities	Not available on hire purchase	Not available of the desired/recommended quality/variety	Not available at convenient distance	No guidance/assistance from official agencies
1	2	3	4	5	6	7	8	9	10
1. Multiple Cropping	Small	9.9	1.1	5.5	12.1	-	-	-	1.1
	Medium	14.9	3.7	3.7	12.2	-	-	-	0.7
	Large	21.1	10.5	5.3	5.3	-	-	-	1.8
	<u>Total</u>	<u>14.5</u>	<u>4.3</u>	<u>4.6</u>	<u>10.3</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>1.1</u>
2. Seeds/Sowing	Small	37.9	6.9	3.4	17.2	-	-	-	-
	Medium	38.1	4.8	-	11.9	-	-	-	-
	Large	100.0	-	-	-	-	-	-	-
	<u>Total</u>	<u>43.6</u>	<u>5.1</u>	<u>1.3</u>	<u>12.8</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
3. Fertilizer Adoption	Small	56.9	-	19.0	1.7	-	3.4	1.7	-
	Medium	52.0	-	14.0	3.0	-	4.0	-	-
	Large	73.3	-	-	-	-	-	-	-
	<u>Total</u>	<u>55.5</u>	<u>-</u>	<u>14.5</u>	<u>2.3</u>	<u>-</u>	<u>3.5</u>	<u>0.6</u>	<u>-</u>
4. P.P. Measures	Small	45.9	-	8.2	8.2	1.6	-	3.3	3.5
	Medium	38.5	1.8	9.2	6.4	-	2.8	0.9	5.5
	Large	50.0	-	3.6	-	-	-	-	7.1
	<u>Total</u>	<u>42.4</u>	<u>1.0</u>	<u>8.1</u>	<u>6.1</u>	<u>0.5</u>	<u>1.5</u>	<u>1.5</u>	<u>5.1</u>
5. Irrigation Practices	Small	13.3	-	3.3	6.7	-	-	-	-
	Medium	25.8	-	9.7	6.5	-	-	-	-
	Large	100.0	-	-	-	-	-	-	-
	<u>Total</u>	<u>28.9</u>	<u>-</u>	<u>6.0</u>	<u>6.0</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
6. Soil Management	Small	14.7	-	-	18.7	-	-	2.7	49.3
	Medium	25.6	-	0.3	16.5	-	-	3.8	33.8
	Large	32.5	-	-	12.5	-	-	-	27.8
	<u>Total</u>	<u>23.4</u>	<u>-</u>	<u>0.4</u>	<u>16.5</u>	<u>-</u>	<u>-</u>	<u>2.8</u>	<u>37.5</u>
7. Farm Mechanisation	Small	61.5	-	23.1	7.7	-	-	-	-
	Medium	50.5	-	21.4	4.8	2.4	-	2.4	4.8
	Large	75.0	-	-	-	-	-	12.5	-
	<u>Total</u>	<u>61.8</u>	<u>-</u>	<u>19.7</u>	<u>5.3</u>	<u>1.3</u>	<u>-</u>	<u>2.6</u>	<u>2.6</u>
8. Handling of Storage inputs	Small	24.1	-	3.4	27.6	-	-	3.4	3.4
	Medium	23.8	-	-	16.7	-	-	-	2.4
	Large	50.0	-	-	10.0	-	-	-	-
	<u>Total</u>	<u>27.2</u>	<u>-</u>	<u>1.2</u>	<u>19.8</u>	<u>-</u>	<u>-</u>	<u>1.2</u>	<u>2.5</u>

N.B.:- Reasons for non-adoption are not mutually exclusive.

Item of Training	Size of House hold	Reasons for Non-adoption (Percentage of Responses)							Total responses(Nos.)
		Not suitable for his farm/house-hold	Inade-quate availa-bility of water	Inade-quate space	No local market	Fear of adverse effects	Lack of speci-fic know-ledge	Other reasons	
1	2	11	12	13	14	15	16	17	18
1. Multiple Cropping	Small	9.9	39.6	2.2	2.2	1.1	3.5	12.1	91
	Medium	11.9	23.9	-	9.0	3.7	3.7	15.4	134
	Large	3.5	28.1	-	14.0	7.0	-	3.5	57
	<u>Total</u>	<u>9.6</u>	<u>29.8</u>	<u>0.7</u>	<u>7.8</u>	<u>3.5</u>	<u>2.8</u>	<u>11.0</u>	<u>282</u>
2. Seeds/Sowing	Small	3.4	6.9	-	-	-	3.4	20.7	29
	Medium	2.4	2.4	-	-	-	-	40.5	42
	Large	-	-	-	-	-	-	-	7
	<u>Total</u>	<u>2.6</u>	<u>3.8</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>1.3</u>	<u>29.5</u>	<u>78</u>
3. Fertilizer adoption	Small	-	10.3	-	-	1.7	1.7	3.4	58
	Medium	7.0	10.0	-	-	1.0	2.0	7.0	100
	Large	6.7	13.3	-	-	6.7	-	-	15
	<u>Total</u>	<u>4.6</u>	<u>10.4</u>	<u>-</u>	<u>-</u>	<u>1.7</u>	<u>1.7</u>	<u>5.2</u>	<u>173</u>
4. P.P. Measures	Small	3.3	4.9	-	-	1.6	9.8	9.8	61
	Medium	11.0	0.9	-	-	1.8	9.2	11.0	109
	Large	3.6	7.1	-	-	3.6	3.6	21.4	23
	<u>Total</u>	<u>7.6</u>	<u>3.0</u>	<u>-</u>	<u>-</u>	<u>2.0</u>	<u>8.6</u>	<u>12.6</u>	<u>198</u>
5. Irrigation Practices	Small	20.0	50.0	-	-	-	-	6.7	30
	Medium	9.7	38.3	-	-	-	-	16.1	31
	Large	-	-	-	-	-	-	-	6
	<u>Total</u>	<u>13.4</u>	<u>17.3</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>10.4</u>	<u>67</u>
6. Soil Management	Small	-	-	-	-	-	10.7	4.0	75
	Medium	0.8	-	-	-	-	5.3	13.5	133
	Large	2.5	2.5	-	-	-	2.5	20.0	40
	<u>Total</u>	<u>0.8</u>	<u>0.4</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>6.5</u>	<u>11.7</u>	<u>248</u>
7. Farm Mechanisation	Small	3.8	-	-	-	-	3.8	-	26
	Medium	2.4	-	-	-	-	-	2.4	42
	Large	12.5	-	-	-	-	-	-	8
	<u>Total</u>	<u>3.9</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>1.3</u>	<u>1.3</u>	<u>76</u>
8. Handling/storage of inputs	Small	-	-	6.9	-	-	27.6	3.4	29
	Medium	2.4	-	4.8	-	-	28.2	23.8	42
	Large	-	-	-	-	-	-	40.0	10
	<u>Total</u>	<u>1.2</u>	<u>-</u>	<u>4.9</u>	<u>-</u>	<u>-</u>	<u>23.5</u>	<u>18.5</u>	<u>81</u>

N.B.:- Reasons for non-adoption are not mutually exclusive