

**A COMPARATIVE STUDY OF THE TRAINING
OF AGRICULTURAL ADVISORY PERSONNEL
IN THE NETHERLANDS AND INDIA**

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N08201.289

THEOREMS

I

The in-service training imparted to the agricultural advisory personnel in India is inadequate to keep them abreast with the results of research carried out in various agricultural fields.

II

The method of selection of agricultural advisory personnel in India, especially of Village Level Workers, is unsatisfactory.

III

No other personnel except those having university degree in agriculture should be appointed as Block Development Officers.

IV

The presence of a coordinating officer at the provincial level is vital for the better working of the Agricultural Advisory Services in the Netherlands.

V

Group Demonstration can only be the most effective method of agricultural extension in India.

VI

Middelbare Landbouwschool trained personnel are no more suited to work as the Local Assistants in the Agricultural Advisory Services in the Netherlands.

O.E.E.C.: Agricultural Advisory Services in European Countries. 1950, p. 147.

VII

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Organiser, Vol. XIII, No. 33, April, 1960; p. 1.

VIII

The Minimum Wages Act (1948) of India has proved failure for the agricultural labourers.

THIRUMALAI, S.: Post-war Agricultural Problems and Policies in India. 1954, p. 142.

IX

Practice of transplanting wheat in water logged areas, which become available for cultivation late in the season, can be a sure way of raising a good crop.

RAHEJA, P.C. and MATHUR B.P.: Indian Farming. Vol. IX, No. 9, Dec. 1959, p. 6.

X

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TIRLOK SINGH: Planning at the village level. Towards Welfare State, 1956, p. 146.

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Caste system, though abolished constitutionally, is still one of the greatest impediments in the acceptance of the agricultural advisory personnel in India.

Ir. S. K. Sharma.

Dit proefschrift met stellingen van

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Wageningen, 27 september 1960.

A COMPARATIVE STUDY OF THE TRAINING OF AGRICULTURAL ADVISORY PERSONNEL IN THE NETHERLANDS AND INDIA

PROEFSCHRIFT

**TER VERKRIJGING VAN DE GRAAD
VAN DOCTOR IN DE LANDBOUWKUNDE
OP GEZAG VAN DE RECTOR MAGNIFICUS IR W. F. EIJSVOOGEL,
HOOGLERAAR IN DE HYDRAULICA, DE BEVLOEING, DE WEG-
EN WATERBOUWKUNDE EN DE BOSBOUWARCHITECTUUR,
TE VERDEDIGEN TEGEN DE BEDENKINGEN
VAN EEN COMMISSIE UIT DE SENAAT
DER LANDBOUWHOGESCHOOL, TE WAGENINGEN
OP VRIJDAG 28 OKTOBER, 1960 TE 16 UUR.**

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BY

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Dedicated

to

My Parents

BIBLIOTHEEK
DER
LANDBOUWHOGESCHOOL
WAGENINGEN.

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PREFACE

In the following pages the reader will find a systematic comparative study of the Agricultural Advisory Services in the Netherlands and India. It is primarily devoted to the training of the agricultural advisory personnel in both countries.

Since the establishment of the Community Development Programme as a major Governmental effort, India has been making steady progress in improving the rural life of her village people. Thousands of workers have been selected and trained to undertake a job of tremendous magnitude and importance. Even now there is a pressing demand for trained personnel to help improve the rural life. Besides the training of such personnel, the so-called Extension Workers, are a new feature in India. Their work needs a clearer conception both among the administrators as well as the actual trainees themselves. Moreover, in India we are faced with the problem of multi-purpose training, so that a villager could be approached and helped in all the fundamental aspects of his life beyond the scope of his mere day to day agricultural operations.

Keeping in view the severity of the problem of the training of agricultural extension personnel, I decided to come to the Netherlands, where the Agricultural Advisory Service was founded in the later part of the last century and the problem of extension training seems to have been tackled in an eminent way.

It was a pleasant thing for me when the State Agricultural University at Wageningen made possible a scientific study of the Agricultural Advisory Services in the Netherlands and India, especially the training of the extension personnel in the subjective light of my own background and experience. This study gave me an opportunity to understand the similarities and dissimilarities in the advisory services in both countries. It has brought to light certain weak points in the organisation selection and training of the extension personnel in both countries. It also suggests the ways and means to overcome them.

Last but not least it throws a light on what can be learned and taken over from the Dutch Agricultural Advisory Service to improve the same in India.

Finally, I may say that only the Dutch and Indian conditions figure in this study. However, the improvements suggested here can be applied as well to the similar problems of the other countries.

S. K. Sharma

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EXPLANATORY NOTES

The following terms and Indian measures have been used in this study:

TERMS

1. V. L. W.	= Village Level Worker
2. B. D. O.	= Block Development Officier
3. C. D. Block	= Community Development Block
4. N. E. S. Block	= National Extension Service Block
5. Panchayat	= Village Council
6. Agricultural Advisory Service	= Agricultural Extension Service
7. Advisory Personnel	= Extension Personnel

INDIAN MEASURES

1. One Ton	= 28 maunds
2. One maund	= 82 1b
3. One Lakh	= 100, 000
4. One Crore	= 10 million
5. One Rupee	= Dutch 80 cents
6. One anna	= 1/16 of the Rupee
7. One Naya Paisa	= 1/100 of the Rupee
8. One acre	= 0. 4047. ha

CORRECTIONS

		<u>wrong</u>	<u>correct</u>
page 7,	line 12,	There	Their
page 21,	line 50,	because	because of
page 24,	line 17,	good	food
page 99,	line 1,	second	record
page 102,	line 22, line 25,	stop licence	to stop license
page 105,	line 22,	selection	section
page 138,	line 28,	cacations	vacations
page 141,	line 6,	worlds	words
page 161,	line 11, line 15,	scharme Enquire	scheme Enquiry

INTRODUCTION

The agricultural advisory service in the Netherlands is a system of rural education extending beyond the class room of school and college to the individual farm. It is a system by which scientific information dealing with agriculture and allied aspects is carried to rural men, women, boys and girls at farms, in their homes and in their local communities. It has proved to be the most effective means of bringing the findings of research and the farmer together and assisting him in applying the new information intelligently. The agricultural advisory service believes that people with knowledge are able to formulate judgments, arrive at decisions and solve problems. It has developed techniques to apply knowledge to the patterns of everyday operations. The results of such an agricultural advisory service is a highly progressive agriculture and a higher standard of living.

Penders¹⁾ states that an international fair in Amsterdam at the end of the last century revealed that Dutch agriculture was backward in comparison with the other countries. Facts at present, however, lead to the conclusion that agriculture in the Netherlands may be regarded as one of the most advanced ones in the world. The yield of most crops together with the application of fertilizers per unit area, the milk yield per cow and egg production per hen show the highest average in the world.

The reasons for such a highly progressive Dutch agriculture are the presence of an effective advisory service, residential teaching in agriculture, and agricultural research and their correlation with each other. This development in agriculture would never have been possible if the diffusion to the farmers of the agricultural research findings by means of the advisory workers had not taken place. In fact, these persons convey to the farmers the lessons of research and to the research workers the difficulties of the farmers. They arrange the supplies and services needed by the farmers. They are the backbone of the whole advisory work.

In India the agricultural advisory service, similar to that in the Netherlands, is of recent origin. It may be termed as the Community Development Programme, which not only includes the development of agriculture but also rural life as a whole. The main fields of activity in the programme are agriculture and related matters, communications, education, health, housing, training and social welfare. The first fifty-five Community Projects, embracing the development of the above mentioned aspects, were inaugurated on 2nd October, 1952. The project area was divided into three Blocks each consisting of about a 100 villages. Later on the National Extension Service Blocks were started for a rapid extension of the development programme. Besides, several Extension Training Centres were established to provide trained extension per-

sonnel at the Village Level in addition to the various supervisory workers at the Block Level. At present there are 3100 Blocks¹⁾ including those of the Community Development and the National Extension Service.

From the beginning of the Community Development Programme in India to March 31st, 1959, farmers have been educated to use improved seeds, plants, fertilizers etc., 1,364,000 agricultural implements were made available so that improved techniques of production could be adopted on a large scale. It has been estimated that chemical fertilizers distributed totalled 47,491,000 maunds, improved seeds distributed 20,516,000 maunds and the agricultural demonstrations held numbered 6,629,000²⁾. In addition, the use of green and organic manures was advocated.

The ultimate outcome of these efforts to develop agriculture was that the national food-grain production increased from 58 million tons in 1950 to 65.5 million tons in 1955 - '56. It is estimated by the end of 1960 - '61, the food-grain production has to be 80.5 million tons if the target set up in the Second Five Year Plan has to be achieved.

Preliminary planning has been started for the Third Five Year Plan and it is estimated that by the end of 1965 - '66 from 100 to 110 million tons of food-grains will be required to meet the demands of the ever increasing population. In addition to food-grain production, the production of dairy and poultry products, fruits and vegetables has to be accelerated.

Efforts have to be made to achieve the target of 110 million tons of food-grains by 1965 - '66. "If the food problem has to be solved the work must be planned on a war footing³⁾!"

However, an effective crusade involves more than plans only. It needs hard work, zeal, and enthusiasm on the part of those who are engaged in the agricultural advisory work. Like in the Netherlands, there has to be an increased correlation among the agricultural advisory service, the agricultural teaching and research. On the whole the developmental organisation - the Community Development Programme - has to be examined and evaluated. Special attention and importance has to be paid to the training of advisory personnel, as they are responsible for the diffusing of the scientific ideas and techniques of production to the village people. On them rests the success of the advisory service.

Thus, keeping in view the importance of the training of advisory personnel and the role played by them in the development of agriculture, this study has been carried out under the Department of Rural Sociology of Non-western Countries of the State Agricultural University, Wageningen.

It involves the comparative study of the training of agricultural advisory personnel in the Netherlands and India. The study also includes a detailed account of the history and organisational set-up

1) India News, June 4, 1960, p. 7

2) B. Rambhai: The Silent Revolution, 1959, p. 107

3) Report on India's Food Crisis and Steps to Meet It. April, 1959, p. 14

of the advisory services in both countries. To understand the present set-up of the advisory service, it is vital to look into its history. In order to understand the effectiveness, merits and demerits of the agricultural extension training, imparted to workers to carry out the agricultural development programme in the Netherlands and India, the administrative or organisational set-up which has been called upon to carry out such programme in both countries should first be examined and analysed. The social structure of the rural communities in the Netherlands and India has also been discussed, as an extension worker cannot be successful in motivating farmers if he overlooks their social structure. If he overlooks this aspect he is likely to miss the most important background of agricultural development. Because of such reasons the emphasis has been laid on the social structure of the rural communities in both countries. The selection of advisory personnel in both countries has been included in this study. This is of acute importance in case of advisory personnel who have to work directly with the people and are concerned with the individuals.

In addition, the study also throws a light on certain weak points existing in the organisation, selection and training of advisory personnel in both countries. It also suggests the ways and means to overcome them.

Finally, the study suggests what can be taken over and learned from the Dutch agricultural advisory service to improve the same in India.

C H A P T E R I.

HISTORY.

History of the Agricultural Advisory Services in the Netherlands.

It is now more than half a century ago that the Agricultural Advisory Service was founded in the Netherlands. Actually the first activity of advisory nature was started in 1870 when some agricultural agents were appointed by the Provincial Farmers Organisations. Their task was to acquaint farm people with many technical possibilities in every field of agriculture. They did this especially by means of giving lectures to farmers. The initiative came, however, from the private agencies.

But the serious European agricultural depression in the eighties of the last century induced the Dutch Government to appoint the well known State Committee of 1886. The main task of the committee was to review the agricultural situation of the country and to devise the ways and methods to improve the same. The committee advised to bestow more care on resident teaching in agriculture, agricultural advisory work and agricultural research as basic means to enlighten farmers, thus forming a sound and lasting base for the improvement of agriculture. The committee also stated that the dependence of farmers on the traders for credit and the prevalence of exorbitant rates of interest had an unfavourable influence on the standard of farming. To overcome these abuses the commission recommended the establishment of agricultural co-operatives to grant credits. This advice was followed by the successive Governments. The Governments systematically extended agricultural teaching, advisory work and technical training. But it also called on the farmers to use their own initiative to improve farming. One of the most important actions taken by the farmers at that time was the establishment of agricultural co-operatives. Credit facilities for agricultural purposes were initiated by starting the first farmers credit bank in 1896¹⁾.

Examples of the farmers own initiative can well be traced in the Farmers Local Associations, which employ even their own personnel for advisory work²⁾. On an average these associations collect f 1 per hectare from their members in order to meet travelling expenses of the advisory personnel.

In 1898 the Agricultural Division was established under the Ministry of Internal Affairs. This division was placed under the charge of Director General of Agriculture and its most important functionaries have been Agricultural Inspectors, responsible for agricultural education and advisory work. The responsibility for the development

1) The Co-operative Movement in the Netherlands, 1957; p. 14.

2) In North East Polder areas the advisory assistants are employed by the Farmers Local Associations. Their monthly salary is paid by the Government. The latter collects the total amount of money from the associations at the end of the financial year. In all there are 196 Farmers Local Associations having 38,719 members, covering 640,299 hectares. For details see Appendix-A.

of agriculture in a province was vested in the agricultural inspector. Though the latter was directly responsible to the Director General of Agriculture in the centre, he was more or less autonomous after all and could carry out the agricultural development in his province in the way he preferred. The main task of the agricultural inspectors was to make farmers aware of improved agricultural practices, the use of fertilizers, better seeds etc. They did this by means of press meetings and demonstrations on special plots. Those who applied the new methods soon found that the extra income considerably exceeded the extra cost. The State Agricultural University was established in 1918¹⁾ at Wageningen. It originated out of an agricultural college founded in 1876. This made it possible to provide a number of trained persons to work in the agricultural services.

In 1912 the Netherlands Government appointed an agricultural officer in general service for the whole country charged with the extension work on agricultural machinery and working methods. This officer gave lectures, reviews on demonstrations and was adviser for the purchase of agricultural machinery and implements. He also wrote two books i. e. *Tillage* and *Tillage- Implements and Agricultural Implements*.

The improvement of the technique which had given such great results was no longer sufficient to solve the many problems with which agriculture was faced. A number of university trained farm-management specialists were appointed in addition to the general agricultural advisers or inspectors. However, their work had little success due to the lack of current accurate financial records and also due to their isolated position with regard to the existing extension service²⁾.

The economic evolution was seriously disturbed during the depression which set in about 1930 when the prices in the foreign market slumped to such a low level that it became impossible for the Dutch farmers or growers to carry on without serious losses. To safeguard the farmers and to follow a strict agricultural policy throughout the country, the Government centralised the agricultural development work. Besides, as the situation especially of the very small farms became worse, the department of Service of Small Holdings was established in the Ministry of Agriculture and Fisheries in 1936. Its task was to issue information and carry out a scheme of special assistance to small holders in order to improve their financial position by an increased and more economic total production. A number of assistants, who were in charge of the subsidiary measures to be undertaken, were placed at the general agricultural adviser's disposal. These assistants only had agricultural high school education. A subsidy was granted in such a form that the purchase of the means of production like fertilisers, seeds etc. were financed. The subsidy was mainly based on the size of family and the output of the farm. The assistants gradually became the "oracle" of these subsidised farmers. Also the non-supported farmers benefited more and more from the advise of the assistants.

1) Men Behind Agriculture. 50 years of service by Wageningen Graduates. 1958

2) Methods of Agricultural Extension, 1953, p. 142.

At the same time, so called, pilot or demonstration projects were established on selected farms which received a small subsidy. They were placed under the direct supervision of the assistants. These farms had a dual purpose¹⁾:

- a. They showed farmers in a certain area and under certain conditions how to raise the right kind of highly productive crops and to practise good methods of preservation of winter feed, how to improve the grassland management and the production level; in short these pilot farms showed farmers how to practise the best methods in a given situation.
- b. They gave to assistants a better insight into a knowledge of problems of managing a farm and taught them that each farm must be individually guided.

The pilot farms had indeed a very good influence and many non-supported farms followed their good practices. The assistants, especially appointed for the small holdings in 1936, gradually became the local advisers of not only small holdings, but also all other farms, irrespective of their size. Hence they actually formed the backbone of the agricultural advisory service at the local level for individual advice.

As far as the development of Live stock and Horticultural Advisory Services is concerned it seems worthwhile to mention them separately in brief, as for many ages both dairying and horticulture have had an important share in the national economy of the Netherlands.

As early as 1881 the Frisian Agricultural society²⁾ appointed the former director of "Molkerie Schule" (dairy school) at Flensburg as an instructor to dairy farmers. It became gradually the custom that this instructor went round the farms to render advice on butter and cheese making and to give lectures to the farmers. Actually the Frisian Agricultural Society followed an example given by the province of North Holland where in 1880 a lady instructor had been appointed to assist in making cheese at farms.

In consequence of the marvellous results obtained from the instructions given on the farms the Frisian Agricultural Society decided in 1887 to appoint a Dairy Advisor³⁾ who, in addition to scientific schooling and practical knowledge, would also show the ability for this task. The Government and Provincial Council granted an annual subsidy of 1000 guilders each and the province also took to contributing annually 250 guilders towards the travelling expenses of the adviser. In 1889 Dr. K. H. M. van der Zande, later on the Controller of Agricultural Education, was appointed as the first dairy adviser in the Netherlands.

After that more of such advisers were nominated on the same financial footing and in 1900 all the provinces had their dairy advisers. After 1912 all dairy advisers were gradually taken over by the Government.

1) Methods of Agricultural Extension, 1953, p. 143.

2) Dairying in the Netherlands, 1953, p. 65.

3) Methods of Agricultural Extension, 1953, p. 430.

It is interesting to note that the foundation of the present advisory activities in dairying in the Netherlands was laid at the initiative of the interested parties themselves. But later on it was taken by the Government on account of financial considerations. However, there are still very close relations between the organisations and the Government Dairy Advisory service as is evident from the following examples:

- a. The dairy factories are the most important centres from where information in many spheres can be disseminated to the best advantage among members or suppliers.
- b. The Provincial Milk Recording Services direct and supervise milk recording in their domains and the advice rendered by dairy advisers helps to advance the proper feeding of cattle.
- c. The Milk Control Stations (Amsterdam, The Hague, Rotterdam and Utrecht) render advice to farmers on the hygienic procurement of milk, while the Central Committee on Milk Hygiene stimulates such advisory work as supervising the observance of the milk hygienic provisions with in the areas covered by the activities of the milk control stations.
- d. The co-operative milk station (C. M. S.) at The Hague looks after the interests of some 12000 member dairy farmers with regard to the procurement of milk by the publication of its organ "Milk" which renders advice to dairy farmers.

The Horticultural Advisory Service has shown a rapid evolution in 1935. It has developed into a comprehensive service dealing with vegetable and fruit growing, cultivation of horticultural seeds, bulb growing, floriculture and arboriculture. Besides, the cultivation of herbs and tobacco is also considered as a part of horticulture.

Though these different cultivations are indeed found all over the Netherlands there are, however, some specialised centres. The village of Lisse, the centre of the wellknown "Bulb District", exports bulbs all over the world. The village of Aalsmeer is a well-known centre for cut flowers and pot plants. Boskoop is the centre of arboriculture.

The main task of the horticultural advisory service at present is to see that the Dutch horticultural farmers are able to produce the best quality at a price as low as possible. So the point of emphasis is both on the quality and the price of production and not on the quantity.

One of the major factors responsible for Dutch horticulture is that market gardening is only allowed to those who come up to certain requirements. Moreover, the license for market gardening is only given to those who possess sufficient theoretical and practical knowledge. Emphasis is also laid on specialization in one of the six branches of horticulture, as for every branch of horticulture a license is wanted, hence a bulb grower is only allowed to grow bulbs, but not fruit or vegetables.

At present, there are 18 advisory stations in the country¹⁾. In each of these 18 districts, it is the advisory officer who is in charge of

1) Horticulture in the Netherlands, 1952, p. 52.

instruction, advice and research in his district. He is assisted by a staff which can principally be divided into 4 groups, advisers, teachers, research workers and administrative personnel.

The result of this system of licenses is, that the Dutch horticultural grower is generally a good craftsman who has a sufficient theoretical base to be open for advice¹⁾. He certainly will not follow this advice uncritically but will try to understand why it is given. He will be able to apply it to changed conditions and take up quickly and easily new and better methods of cultivation. However, the system of licenses can only be followed if horticultural growers can obtain the necessary theoretical knowledge by following courses and schools. The number of persons following such courses and schools amounts to 18000 to 20000 per year²⁾. It is stated that 95 % of horticultural farmers have followed such courses.

Advisory work is not restricted to technical problems but deals with economic matters associated with the management of holding as well.

The "information-days", being regularly organised and enjoying large attendance are of importance too. Yearly horticultural exhibitions are held in the various parts of the country and publications like the Horticulture Guide, issued annually, represents an integration of informative activities. That growers realise the usefulness of this guide in performing their daily task is proved by the fact that every new edition of the guide is much in demand (app. 20,000 copies)³⁾.

In 1945 - '46 there arose a burning question whether it was worth while to handover the agricultural advisory work to the Farmers Organisations. Besides, it was also considered necessary to analyse the relation between the existing agricultural advisory service and the farmers organisations. If the relation was not satisfactory what measures should be taken to make it so.

To look into the above facts and to find measures to improve the existing agricultural situation a Commission of Agricultural Experts was appointed in 1945, bringing out its report in 1951. The commission found:

1. Because of the strict rules and regulations laid down by the centre, the District Adviser could not pay much attention to the local problems. In fact, a more or less uniform policy for advisory work, laid down by the centre, was to be followed which restricted the advisers approach to certain local problems.
2. It further expressed doubt whether most of the local assistants with agricultural school diplomas were capable and had enough knowledge and experience to act as professional extension leaders.
3. It also mentioned that to solve the problems of an agricultural farm as a whole not only agricultural aspects should be given consideration, but other aspects such as the social, psycholo-

1) Methods of Agricultural Extension, 1953, p. 378.

2) Ibid, p. 378.

3) Horticulture in the Netherlands, 1952, p. 58.

gical and ethical ones had to be taken into account as well. Besides, the co-operation of Farmers Organisations with extension work, was described as indispensable for the latter's success. In addition to the above mentioned objections the commission had a few measures to improve the agricultural situation in those years. These were:

1. The commission suggested to decentralise the agricultural advisory service as far as possible. The centre should only be responsible for recommending the scientifically approved agricultural practises to be followed in various provinces. Whereas the execution of these recommendations should be entirely left to the advisory officer of the province concerned. The advisory staff should also be free to choose its own way to carry out improved agricultural practices. Further, the commission asked for the improvement of local agricultural conditions by setting up Regional Agricultural Experimental and Model farms.
2. The number of academically trained local assistants should be increased and the assistants with middle standard education should be replaced by better educated ones.
3. In order to establish an effective co-ordination in the agricultural advisory work and to obtain the effective participation of the farmers and farm labourers, National and Provincial Councils for Agricultural Advisory Work should be founded. In addition to advisory officers and other officers, such as for irrigation, forestry, re-allocation, there should be a reasonable representation of farmers organisations in these councils.

It is also worth while to mention here in brief that the changes in the agricultural production pattern of the Netherlands caused by economic conditions, also affected the development of the agricultural advisory service.

Before the turn of this century, Dutch agriculture was largely commercially dependent on the production of grains. Mixed farming with the production of livestock and livestock products and truck-farming was almost exclusively practised on a self-supporting basis due to a lack of suitable markets for these products abroad. Around 1900, the development of large industries in the Netherlands and in the surrounding countries brought a great change in agricultural production. The industrial development and simultaneously arising labour movements increased the demand for more expensive products such as milk, butter, cheese, meat, eggs and vegetables. Favoured by these newly created markets Dutch agriculture stressed the need of commercial production of horticultural and dairy products which led to the greater and quicker development of the agricultural advisory service. This was the period in which the change from production on more or less self-supporting basis of the internal production of the country to the export-import basis occurred, mainly due to a different set of economic conditions.

After the last world war, however, Dutch Agriculture again faced a completely different economic situation as compared with that from before the war. The world market of concentrates and other feeding-stuff was in very short supply and the Netherlands faced a very un-

stable balance of payments. Instead of increasing the import, the Netherlands was compelled to aim at a decrease in import of feeding-stuff and hence at the increase in the production of home grown fodder. This stressed the increase in home grown fodder and led to a remarkable increase in the number of local assistants in the arable and grassland advisory service, as is evident from the Table I. Home grown fodder could be produced more cheaply. Besides, high prices of agricultural products were an incentive to higher production and placed many submarginal enterprises and practises within the marginal range.

Continuing with the history, in 1950 the team of O. E. E. C. visited the Netherlands from 22nd January to 5th February¹⁾. The object of this team was to study the existing advisory work and to give suggestions for further development. The following are the few major suggestions made by the team:

1. In order to adopt the education given at Wageningen to the needs of the Advisory Service it is recommended that instruction on advisory methods be included in the curriculum.
2. The general educational level of the farmer in the Netherlands is rather high. Many farmers have experience and technical training equal to that of the adviser of the assistant grade. For this reason, consideration should be given to increase the proportion of university graduates.
3. There are four different sections in the Ministry of Agriculture²⁾ participating in the advisory work in agriculture each section serving its own field. The field service is similarly divided into four different divisions. There is no common district organisation. The office of the different divisions are frequently located at different places. The administrative districts of the four divisions do not coincide. Yet, in practice, a farmer very often has to receive advice from all four divisions. Due to the present organisation it is possible that overlapping, confusion, and inefficiency exist in many instances. It is recommended that steps be taken to co-ordinate the work of different services and to provide necessary advice in the most efficient and economic manner.

With the aim to bring about more contact in the work done by the various departmental agencies of the Ministry of Agriculture Fisheries and Food³⁾, Provincial Boards have been established in 1950. There is such a board in each province, meeting at regular intervals. Apart from the provincial advisory officers of the various advisory services mentioned, the Provincial Directors of the Land and Water Use Service, the Provincial Superintendent of the Veterinary Service, the State Foresters, the Principals of agricultural winter schools, and the provincial Food Commissioners are also

1) Agricultural Advisory Services in European Countries, 1950, p. 147.

2) At present there are only three sections of advisory work
a. Arable and Grassland.
b. Horticulture.
c. Livestock.

3) Now known as the Ministry of Agriculture and Fisheries.

members of these boards. Besides, in order to establish an effective co-ordination in advisory work and to create an intensive co-operation with the representatives of farmers and farm labourers organisations, a National council for Agricultural Advisory work was founded in 1953 (a detailed account is given ahead).

As far as the extension of the advisory staff in the Agricultural Advisory Services in the Netherlands is concerned, the following table may throw some light on it.

Table 1¹⁾.

Development of Dutch Governmental Agricultural Advisory Service.

Years	1910	1930	1940	1950	1959
I. Arable and Grassland Farming Advisory service					
Advisory officers	15	24	23	36	38
Associate Advisory officers	-	-	9	30	40
Assistant Advisers	-	3	234	649	728
II. a. Livestock Advisory service					
Advisory officers	2	11	11	12	16
Associate Advisory officers	-	1	2	8	10
Assistant Advisers	-	4	11	17	26
b. Poultry Advisory Service ²⁾					
Advisory officers	-	1	4	6	6
Associate Advisory officers	-	2	-	-	2
Assistant Advisers	-	4	-	22	28
c. Dairy Advisory Service ³⁾					
Advisory officers	12	9	9	12	12
Associate Advisory officers	-	-	-	4	12
Assistant Advisers	-	5	7	16	42
III. Horticultural Advisory Service					
Advisory officers	12	19	22	27	28
Associate Advisory officers	3	1	-	15	26
Assistant Advisers	-	13	49	264	277
Teachers in general service	-	-	-	19	29
Total	44	97	381	1137	1320

The table reveals that the advisory staff has grown in number by 30 times during the last five decades. Another interesting aspect is that the Governmental Agricultural Advisory Service which actually started after the agricultural depression in the eighties of the last century, has been increased particularly in periods of economic depression e.g. in the thirties of this century and in the post war years. Furthermore, the table shows that the staff of assistant advisers has been enlarged considerably in the thirties. This was mainly due to special measures taken by the Government for the support of small holders after 1935 necessitating the appointment of assistants on behalf of the agricultural and horticultural advisers.

1) Obtained from the Ministry of Agriculture and Fisheries.

2) This service has been sub-ordinated to the Division for Livestock Husbandry of the Dept. of Agriculture.

3) It has been amalgamated to the Livestock Advisory Service.

These assistants are capable of working out an intensive system of individual advisory methods, and specially making more farm visits, as there is on an average only one assistant adviser for 450 farms.

The advisory task of arable and grassland and horticultural services is, as the table shows, more extensive than the one delegated to other divisions. The arable and grassland and horticultural advisers in fact have to consider the size of holding as an unit while rendering advice, whereas those of the livestock advisory service mainly deal with the farmers societies and agencies, which are carrying out a major part of the advisory work themselves. The table also reveals that on the whole the ratio between University and non-University trained personnel is 1 : 6, whereas it is 1 : 10, 1 : 5 and 1 : 2 in case of arable and grassland, horticulture and livestock services respectively.

Some of the typical features of the Agricultural Extension Service of the Netherlands can be traced as follows:

1. In the beginning the agricultural advisory service concentrated mainly on production techniques of agriculture as it stressed the use of fertilizers, improved seeds, implements and the likes. Later on there was growing interest in agricultural economics such as the organisation and management of the agricultural farm. At present all the social problems, which arise due to the growing agricultural development, are also tackled in addition to the agricultural ones.
2. There is a clear development from the single aspect of advisory service to a comprehensive approach which embraces the agricultural farm as a whole i.e. the farm is considered as a single unit of advisory work and it is tried to develop all its aspects.
3. In as far as the use of agricultural extension methods is concerned there has been greater stress on the use of group media such as demonstrations, lectures and alike, especially in prewar days. Mass methods such as radio talk, booklets, pamphlets, slides, filmstrips, films and exhibition showed a substantial development in the post-war years. However, with the increase in the number of local assistants individual approach too was intensified. At present the Ministry of Agricultures and Fisheries has a special information division which prepares advisory aids for the advisory services of arable and grassland, horticulture and livestock.
4. It is said that in beginning the advisory service did not realise the importance of working through private organisations and agencies, while the present strongly developed advisory service, advising farmers mainly on the technical and farm managerial side, is accepted and supported by the farmers organisations which are represented by their representatives in the National and Provincial Councils for Advisory Work.

Dealing with the training of local assistants it was in 1952 that the attention was directed to the need of imparting additional training to local assistants, because the increasing specialised nature of agriculture. In 1954 training courses were started and by the end of

1957, about 561 assistants were trained. However, these courses were not centrally organised, but conducted separately in each district. The table given below shows the categories of assistants who were admitted to these courses during three years.

Table 2.

Personnel, who attended¹⁾ the training courses organised from 1954 to 1957.

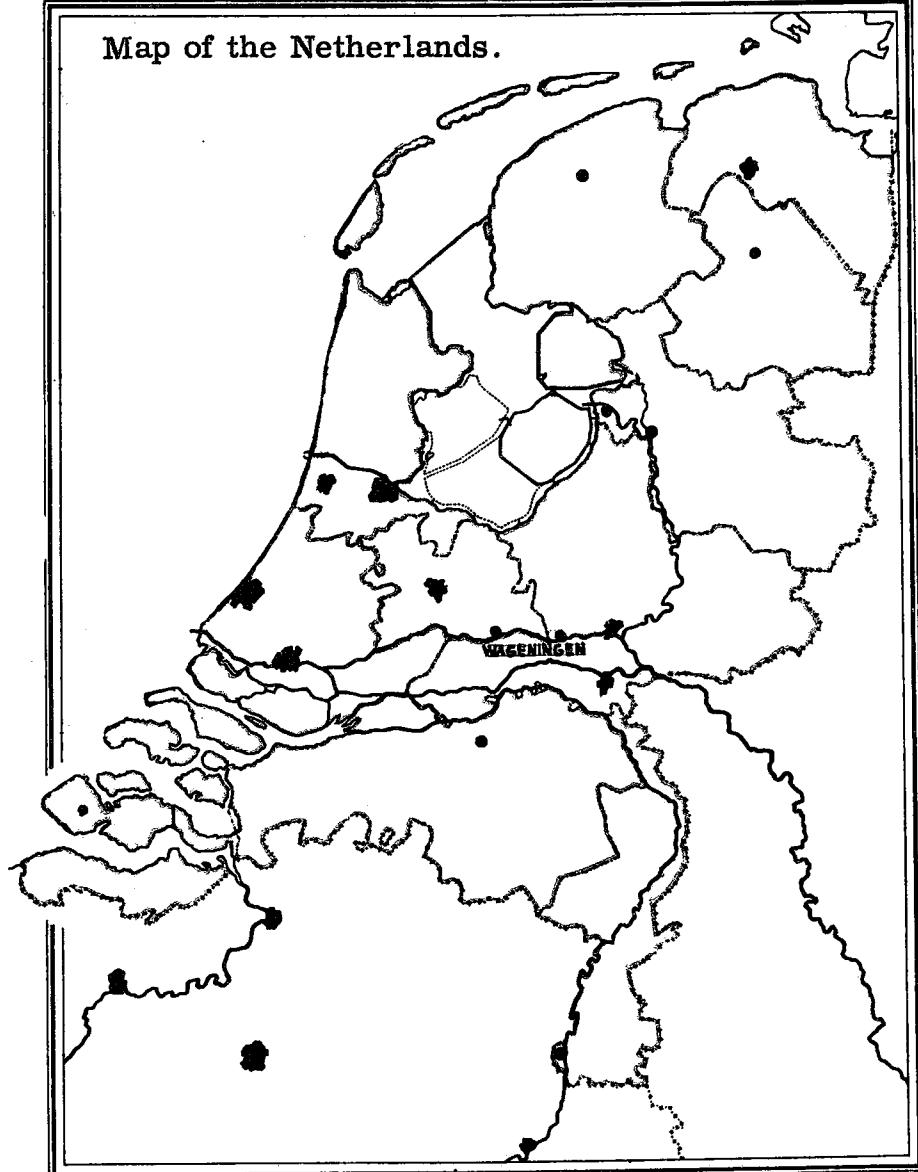
Categories of personnel	No. of personnel joining the courses	
	No. of personnel completing	No. of personnel that left or failed to complete
1. Arable and Grassland Service		
a. Local Assistants	415	11
b. Assistant specialists	80	53
c. Sub-assistants	30	3
d. Administrative assistants	2	3
e. No. of persons that left the service	29	67
2. Land Re-allotment personnel	-	46
3. Land Reclamation personnel	-	31
4. Animal Husbandry personnel	2	18
5. Livestock assistants	1	5
6. Persons from Agricultural Economic Institute (L.E.I.)	-	15
7. Miscellaneous	2	17
	561	269

The first centrally organised training course for personnel of the assistant category was launched on 6th January, 1958 at the Castle known as "Hoekelum" at Bennekom. This course was specially meant for new assistants joining the agricultural advisory services, where as the courses during 1954 - 1957 were only meant for those who had already been working as assistants for several years. On 8th December 1958, the diplomas for the completion of the course were awarded to 27 assistants.

The training course organised during 1959 is of a more or less specialised nature and it consists of two parts. Under the first part, which ended in June 1959 the assistants with special interests, such as in plant protection, farm-management, labour efficiency etc., were called at Hoekelum in batches of 25 to 30 from all over the country. Lectures by specialists and discussion among the trainees were arranged at the centres. Field trips and excursions were also organised. The second part of the course consisted of visits of a few days by number of assistants to certain regions of the country where they exchanged their views with the host assistants. The main idea of organising this part of visits is to lead to exchange of ideas and knowledge with the assistants and to bring people together and closer with respect to their interests. So far about 380 assistants have attended first part of this course in the groups of 13 each.

1) Landbouw Voorlichting, No. 8, Aug. 1959, p. 462.

Map of the Netherlands.



History of Agricultural Advisory Services in India.

From times immemorial people have been living in small isolated villages almost throughout the country. These villages have been self-governed and self-supporting. Charles Metcalf¹⁾ remarked, "Even though empires fell and rose but these self sufficient and self-governed village communities seem to last where nothing else lasts." Towards the end of nineteenth century, however, these self-supporting communities seem to have been shattered. The poverty and indebtedness of the peasant increased and famine became more frequent.

In order to look into the frequency and severity of famine the Famine Commission of 1880²⁾ was set up which came to the conclusion that, "It is to the improvement of the internal communications and the removal of all obstructions to the free course of trade accompanied by the extension of irrigation in suitable localities and in improved agriculture that we must look for, obtaining security in future against disastrous failures in good supply". The recommendations of this commission led to the establishment of Agricultural Departments in all the Provinces³⁾. The Famine Commission of 1898 recommended to appoint an expert staff to investigate agricultural problems and to apply scientific methods to improve agriculture.

While the successive Famine Commissions were drawing attention to the need of agricultural improvement, it was noticed that no improvement was possible without adequate research. Consequently in 1889 Dr. J. A. Voeleker, Consulting Chemist to the Royal Agricultural Society, came out to India to give advice on the best way of applying the teaching of agricultural chemistry to the improvement of Indian agriculture. As a result of his recommendations an Agricultural Chemist was appointed. In 1901 an Inspector-General of Agriculture was appointed in the Imperial Department of Agriculture; with such main duties as the systematic study of Indian agriculture, its conditions and remediable defects; the supervision and development of provincial agricultural departments; the establishment of improved agricultural methods and new staples and generally, the direction of the agricultural policy of Government⁴⁾.

In 1905 under Lord Curzon the All India Board of Agriculture was set up to co-ordinate the activities of the Provincial Agricultural Departments. The Imperial Agricultural Research Institute was established in 1904 at Pusa in the Darbhanga district of Bihar with the funds donated by Henry Phipps of Chicago⁵⁾. He placed a sum of £ 30,000 to set up this research institute.

In 1906 - 1908 the Agricultural colleges were started at Coimbatore, Poona and Nagpur. The main idea of this was to provide technical service in the field and to conduct research work for increased agricultural production.

Besides Agricultural Departments in each state, various other

1) Randhawa, M.S. Developing Village India, I.C.A.R., 1951.

2) The Changing Pattern of Agricultural Extension in West Bengal. 1956, p. 2.

3) Human Problems in Technical change, 1952, p. 55.

4) Report on the Royal Commission on Agriculture, 1928, p. 112.

5) The name has been changed after independence to Indian Agricultural Research Institute.

departments of development, such as Co-operation, Irrigation, Animal Husbandry etc. have been working in their own way to help the countryside in matters falling within the respective jurisdiction of each department. After the Government of India Act in 1919 the responsibility for agricultural development was placed upon the provincial departments.

The Central Government only reserved the right of promoting agricultural research. In 1926 the Royal Commission on Agriculture was set up under chairmanship of Lord Linlithgow to enquire a report on the possibilities of agricultural improvement. The Commission made extensive enquiries and published their report in 1928. One of the recommendations of the Commission was the setting up of an Imperial Council of Agricultural Research which would initiate, co-ordinate and guide agricultural research. This proposal was accepted by the Government and I. C. A. R. has since then been functioning as an organisation for initiating agricultural research all over the country. A monthly journal, Agriculture Livestock, now Indian Farming was also started to disseminate agricultural information.

The report of the Royal Commission did not only revolutionise thinking on agricultural problems but was also responsible for much expansion in agricultural department in subsequent years.

Though the development in agricultural research had been proceeding since long, there had been no significant development in the countryside as a whole. It was only in 1928 F. L. Brayne emphasised that by far the largest proportion of India's population lived in villages and that no real development of the country was possible unless the problem of bettering this condition was seriously taken up. Brayne is regarded the pioneer of rural development in India. In the capacity of Deputy Commissioner of the Gurgaon district of Punjab he drew up a scheme dealing with the overall rural uplift of villages. The Royal Commission on Agriculture in India illustrated the following as the activities under taken under the Gurgaon scheme:

"The scheme embraces the work of every department of the Government engaged in rural areas; it seeks to assist in securing the adoption of the advice of the expert by a well planned propaganda campaign; it depends for its success on the enlistment in the cause of every one willing to assist, official or non-official and more specially of the people themselves whose welfare is in the balance. Lecture, song, drama, magic lantern, cinema and even loud-speakers are made to contribute what they can to arouse the people to realisation that they themselves are responsible for their own undesirable condition"¹⁾.

Darling ²⁾ (1932) reviewing the Gurgaon scheme of Brayne writes, "Pits were dug in thousands, Hissar bulls and Gurgaon ploughs bought in and Persian Wheels were put in soores. Villages were cleaned and recleaned, large sums were raised for high schools and many girls went to school with boys".

1) The Royal Commission on Agriculture, 1928, p. 502 - 3.

2) Darling M.L. The Punjab Peasant in Prosperity and Debt. 1956, p. 156.

However, if one just happens to visit the Gurgaon district now-a-days one may not find any of the above mentioned developments. Still, it should not be forgotten that the chief value of Brayne's work is not to be found in the results achieved in Gurgaon, but in directing the attention of India's people and the Government to the problem of remaking India.

Another example of the rural development programme is the Sriniketan Scheme of West Bengal. Founded by Rabindra Nath Tagore in 1922, the objective of Sriniketan has been defined to be: "to bring back life in its completeness into villages, making them-self-sufficient, self-reliant and self-respectful acquainted with the cultural tradition of their own country and competent to make an efficient use of modern resources for the improvement of their physical, intellectual and economic conditions"¹⁾.

Its work was started with three neighbouring villages and now the activities have been extended to an area of about 200 miles. The work of the institution is now considered to be carried on under the heads of Agriculture, Animal Husbandry, Economic Survey and Research, Health and Sanitation, Rural Industries and Education. It is a sort of liaison agency with ceaseless campaign calling upon our decadent villages to awake, arise, and to come into their own.

In 1937 Sir John Russell, then Director of the Rothamsted Experimental Station, was invited to probe into the work of Indian Council of Agricultural Research, commonly known as I. C. A. R. He spent some months in India, and gave his opinion and recommendations in his report, "The work of the Imperial Council of Agricultural Research in applying science to crop-production in India", published in 1937. While making specific recommendations about research he emphasised that research could not be of any value unless adequate steps were also taken to reach the farmer. He pointed out that there was a large gap between experimental stations and the cultivators. It was, necessary, he said, to bridge the gap as quickly as possible. He further recommended that the council should stimulate extension work by provincial agricultural departments and delegate the research work to the universities. He was also in favour of entire holding demonstration instead of demonstration of a single separate improved practice on a single plot.

During the Second World War the problem of food supply became acute. Most of the supply from foreign countries was cut off and the need of being self-supporting was strongly felt. In 1942 a conference was called by the Government of India to discuss the question of food supply. The recommendations of this conference became the basis of the "Grow More Food Campaign". The Provincial Governments were, however, responsible for the execution of the campaign. They received for this purpose loans and grants from the Government of India. The object of the campaign was very clear cut i.e. to produce an extra 4 million tons of food grains in next five years²⁾. However, the "Grow More Food Campaign" did not re-

1) Rural Developments Schemes in India. Indian Council of World Affairs, New Delhi, 1954, p. 28.

2) Nag, D. S. A study of Economic Plans for India, 1948, p. 48.

place the normal development work of the Agricultural Departments of the States. It was an additional job for which a separate staff was recruited in order to intensify the agricultural development.

In 1946 the Firka Development Scheme of Madras was introduced to 34 selected Firkas¹⁾. It was later on extended to 50 additional Firkas from 1st April 1950 and was further extended to 24 more Firkas on 2nd October 1952. The scheme had extended to 108 Firkas at the end of October 1952, when it was merged in the Community Development Programme. The main programme of work of the scheme included the development of village communications, the provision of drinking water, the organisation of multipurpose co-operative societies, the improvement of sanitation, the improvement of agricultural techniques and implements, the improvement of livestock and the development of cottage industries.

On 15th August, 1947 the foreign rulers left India. The new Government began to think in terms of rebuilding the country's agriculture, in addition to other aspects of development. In 1948 the Fiscal Commission was appointed to find a way to solve the food problem. The Commission observed: in our view the greatest need in India at present is an Extension Service with the object of bridging the gap between research and practices of producers. What we have in mind is an extension officer who will be an agent of development departments, for the implementation of schemes of improvement for the villages²⁾.

Besides in 1948 Etawah Pilot Project³⁾ was started in Uttar Pradesh under the guidance of Albert Mayer who visualised that the best way to raise the level of living of India's people was to start such pilot projects. He came to India as an officer in United States Army Engineer in Second World War. In the words of Mayer, "The objective of the project was to raise the level of people and their performances (their economic, personal, social, public health practices and outlook) and to improve the physical things, the people have to work with and on (their soils, its enrichment and conservation, their tools and implements, their village roads, lay-out and drainage)". This experiment was tried in 97 villages of Etawah district.

Similar experimental projects were also started at Nilokheri and Faridabad in Punjab. The former was under the charge of S. K. Dey, formerly an electrical and mechanical engineer; later the Community Project Administrator and at present the Minister of Community Development and Co-operation, Government of India. On a marshy jungle near the village of Nilokheri in the Karnal district of Punjab he built a more or less self-supporting colony of 6000 refugees from Pakistan. Sudhir Gosh was in charge of the Faridabad project, which dealt with the rehabilitation of 30,000 refugees from the North West Frontier Province⁴⁾. With small Government loans, payable in twenty years, a practically self-supporting industrial township was established.

1) Firka. In Madras is an administrative unit which comprises about 30 villages.

2) Report of the Fiscal Commission, Govt. of India, 1954, p. 15.

3) Interim Report of Pilot Development Project, Etawah, 1952.

4) Dube, S.C. Indian's Changing Villages, 1958, p. 9.

Excellent by themselves as these experiments were, they could not provide a model for the development of the rural community. Nevertheless, they demonstrated what the co-operative endeavour of the people themselves, with technical guidance and a modest financial aid provided by the Government, could achieve.

In March 1950, the Government of India set up the Planning Commission with the tasks¹⁾ to make an assessment of material, capital, and human resources of the country, to formulate plans for the maximum utilisation of their resources, to define a stage for the plans to be carried out, to indicate the retarding factors in progress and recommendations to overcome them, to evaluate the progress from time to time and to determine the nature and machinery which would be necessary for the successful implementation of each stage of the plan.

In the year 1951 K. M. Munshi, then the Minister for Food and Agriculture, Government of India initiated an integrated production programme in order to overcome the food shortage in the country. The programme was called Land Transformation Plan²⁾, the main objective of which has been, "The Utilization of land on a rational basis so that all the available resources of land, water, and livestock are developed to their maximum potential and the population is assured of a decent standard of living". However, the programme could not proceed due to the start of the Community Development Programme in 1952.

Before we deal with the Community Project and National Extension Service Programme, I should like to mention that there have been many other rural development programmes in India such as the Sarvodaya Scheme in Bombay, the Bihar Panchayat Raj Scheme, the American friends Service in Orissa, the Friends Rural Committee in Madhya Pradesh, the Rajasthan Sewa sang in Rajasthan, etc.³⁾. The absence of any reference to these programmes and schemes in this chapter does not mean that their influence on rural developments has been under-rated. Here only those major schemes and programmes have been mentioned which included agriculture as one of the aspects in their development plans.

In spite of the above mentioned schemes and the efforts by well organised departments of Agriculture, Animal Husbandry, Co-operatives, etc. there was no significant improvement in the agricultural condition of the country as a whole. The Gurgaon Scheme of Brayne (1928), taken as one of the oldest schemes of rural development, did not produce lasting effects. The reasons for its failure might be that the only force behind its achievements was personal authority and not the co-operation and will of the farmers. Farmers were compelled and not convinced to buy improved implements. Besides, the advice given to farmers was not backed by enough supply. Even today one can find a few mould board ploughs with the farmers that were supplied during the scheme. But their spare parts had never been available and therefore they remained unused in those days as

1) The First Five Year Plan, Govt. of India, 1952, p. 111.

2) Land Transformation for Anand Taluka, I.C.A.R., 1953.

3) Kurukshetra vol. 2, 3, 1953, pp. 43 - 46.

well as now-a-days. Moreover, the only method of extension used was field demonstration, which did not prove to be very effective. In my opinion field demonstrations in a country like India, might have been accompanied by individual approach. The ultimate outcome of the scheme was its failure to convince the farmers that it had been for their own benefit. As soon as Brayne left the district all that was done collapsed.

In 1951, the question arose as to whether the Grow More Food Campaign started in 1942 was successful in fulfilling the objective for which it was started. In early 1952 the Grow More Food Enquiry Committee¹⁾ was appointed to examine whether the results achieved by the Grow More Food Campaign had been commensurate with the scale of expenditure involved and to suggest measures to ensure the optimum utilisation of the available production requisites by the cultivators. The committee remarked, "The Grow More Food Campaign has not fully achieved the results expected, since it has not aroused enthusiasm in the countryside. The problem of food production is a much wider one than the elimination of food imports. Agricultural improvement is again an integral part of a much wider problem of raising the level of rural life".

"No lasting improvement in rural life is possible if aspects of it are treated in isolation. So an extension organisation should be set up for rural work which would reach every farmer and assist in the co-ordinated development of all aspects of rural life". At village level there will be one worker who will be responsible for 5 to 10 villages. He will be the joint agent for all development activities and will convey to the farmer the lessons of research and to the experts the difficulties of the farmers and arrange the supplies and services needed by the farmer, including preliminary assistance in animal and plant diseases".

"The 'Extension' organisation should be spread all over the country within the shortest practicable time, not exceeding 10 years.....".

Following the recommendations of the "Grow More Food Enquiry Committee", the Community Development Programme was inaugurated on October 2, 1952, the 83rd anniversary of Mahatma Gandhi. Fifty-five Community Projects were launched. Each Project area comprised about 300 villages, covering an area of 450 to 500 miles i.e. about 1,50,000 acres with a population of about 2,00,000 persons. A project area was divided into three Development Blocks of hundred villages, each with a population of about 65,000 persons. Each block was divided into about twenty groups, each containing five villages. Each group of village was being served by a Gram-Sevak (the Village Level Worker). Of five villages, one generally became the headquarter of the Gram-Sevak.

The experience of the first fifty-five Community Projects and the popular enthusiasm that they aroused emphasised the need for a rapid extension of the programme to other parts of the country. The country's human and financial resources were, however, not of the order and magnitude by which a comprehensive programme

1) Report of Grow More Food Enquiry Committee, Govt. of India, 1952.

covering the entire country, as contemplated in the first fifty-five Community Projects, could be undertaken.

The Govt. of India, therefore, decided to launch alongside the Community Projects a programme which was somewhat less comprehensive in character, but a permanent process of improvement, called the National Extension Service. At the same time it was decided that after the areas had been treated under the National Extension Service, the selection of the blocks would periodically be made to be taken over for intensive development, contemplated in the Community Development Project Programme.

One may like to know why 2nd October was chosen as the day to launch the Community Project Programme. The significance of 2nd October is clear from the words of Prime Minister of India, Jawahar Lal Nehru¹⁾. He says, "These Community Projects appear to me to be something of vital importance, not only in the material achievements they will bring about but much more so because they speak to build up the Community and the individuals to make the latter the builder of his own village centre and of India in the larger sense. It corresponds to the principles of GandhiJi, who taught us many lessons but essentially he taught us to work and to serve. By inaugurating the Community Projects on 2nd October we would like to add further sanctity to this occasion by commencing it on Gandhi Jayanti Day²⁾."

In 1952 - '53 series of Community Projects the provision per block was Rs. 22 lakhs for a period of three years. This was reduced to 15 lakhs for 1953 - '54 series. The present provision of National Extension Service stage of three years is Rs. 4 lakhs and for the Community Development stage it is Rs. 8 lakhs, making up the total of Rs. 12 lakhs for six years.

Meanwhile in 1953 Planning Research and Action Institute was set up at Lucknow to devise ways and methods for rural development. Several evaluation studies have been carried out by this institute. One of its achievements is in the Soil Conservation Programme, i. e. with the participation of villagers bunds have been constructed round the fields to conserve rainwater and to check water erosion. This achievement may be taken as one of the unique examples of people's participation.

The basic aims of the Community Project and the National Extension Service Programmes under the first Five Year Plan in terms of their immediate and ultimate goals may be summarised as follows:

1. To provide a substantial increase in the country's agricultural production and improvements in the system of communications, in rural health and hygiene and in village education.
2. To initiate and direct a process of integrated cultural change aimed at transforming the social economic life of the villages.

In the words of V. T. Krishnamachari³⁾ the Community Develop-

1) Jawahar Lal Nehru on Community Development, Govt. of India, 1957.

2) Birth Day.

3) Talk Broadcast on October 3, 1955.

ment Programme consists of two stages, "Firstly, every area comes under the National Extension Service, a permanent movement assisted by the Central Government on a permanent basis. Secondly, National Extension Service Blocks showing good results in a way of people's response to programmes are selected for intensive development as Community Development Blocks for a period of 3 years. These two stages are interrelated. They are parts of a single movement".

During the last seven years an average of about Rs. 800,000 have been spent daily on rural uplift in India under the Community Development Programme. The people's contribution to this amounts to Rs. 300,000 about 64 % of the Government expenditure¹⁾. This contribution has been in the form of cash, kind and labour. The programme now covers 300,000 villages, more than half of rural India, with a population of 160 million people.

The ultimate responsibility of implementing the Community Development Programme throughout the country is to rest with Village Councils, as was also proposed in a meeting of the Central Council for Local self-Governments, held in Srinagar in 1957. The main idea of this proposal is to bring about far reaching decentralisation in the existing administration, particularly in the sphere of developmental activities. The idea of decentralizing governmental machinery by giving more power to Village Councils is in line with the directives of India's constitution i.e. the Village councils should gradually become the basic unit of Government. The Ministry of Community Development and Co-operation has also been emphasising the role of the Local self-Governments in transforming the Community Projects and National Extension Service from the Governments programme with the people's participation into the people's programme with Government participation.

This does not mean that Village Councils should become isolated and almost independent units. Although they should be endowed with substantial powers to govern local affairs in the social, economic, educational and cultural spheres, arrangements should also be made for bringing about a close co-ordination between different councils at District level. But it should not be forgotten that before large-scale decentralisation is carried out it would be necessary to bring about a better social and economic equality in the village communities. At present the Indian village communities are caste ridden and there is sharp in-equality among the people. A minority of rural people still commands the majority of land in the villages. Casteism is still a potent danger to the growth of sound village councils.

One would also like to know what will be the place of the Agricultural Departments of the States in which the Community Development Programme also exists.

Before we discuss the fate of the agricultural departments, it will be worthwhile to know the activities of the latter before the Community Development Programme came into existence.

1) India News, Jan. 31, 1959, vol. 6, p. 6.

The Director of Agriculture of a State was responsible for all aspects of agricultural development. He guided research and directed field work. In general, he used to have expert officers, such as a Deputy Director of Agriculture, an Agricultural Chemist, a Livestock Expert, an Economic Botanist, etc. The District Agricultural Officers and assistants were the channels through which the Agricultural Department spread its information. A district agricultural officer was in charge of one district. He carried out experiments designed by the experts and in addition he was responsible for the demonstration programme. In each district there were two to three demonstrators who were responsible for setting up demonstrations on the cultivators plots.

Since the beginning of the Community Development Programme and N.E.S. the duties of assistants and district agricultural officers have been taken over by village level workers and agricultural supervisors. The field work of the agricultural department has been taken over by the field staff of the Community Development and N.E.S. Blocks. In place of experts of the agricultural department there are subject specialists at district and state levels. In a way there is no need to have a separate agricultural department when the present development programme covers all the agricultural aspects, except for research and education, in addition to other aspects of rural development. So gradually all the states will have a Community Development Department, a comprehensive department which embraces all the rural developmental aspects. However, the agricultural research and education will be the responsibility of the state research institutions and universities, the former being under the Director of Agriculture and the latter under the Vice-Chancellor of the university.

The backbone of the whole programme of intensive rural development under the Community Development is the Village Leve Worker. As the strategic and vital link between all the rest of the development organisation and the village people, he is the solid nucleus round which the whole extension programme is built. The task of training these Village Level Workers, which is vested in the Directorate of Extension and Training, Ministry of Food and Agriculture, is, therefore, one of almost frightening responsibility.

In order to meet the increasing demand of Village Level Workers and other Extension personnel for the implementation of the Community Development Programme, five Extension Training centres were established in 1952 at Mandy (Mysore), Sindewahi (Madhya Pradesh), Burdwan (West Bengal), Bakshi Ka Talab (Uttar Pradesh) and Anand (Bombay). In October of that year the Community Project Programme envisaged the establishment of 1200 blocks which needed 12,000 trained extension workers at Village Level, in addition to various supervisory personnel at Block Level. To meet this urgent need the Ministry of Food and Agriculture immediately took in hand the establishment of 29 more Extension Training Centres, in co-operation with the State Governments. Besides, the training centres for Block Development Officers, Extension Supervisors and Social Education Organisers and Basic Agricul-

tural Colleges to impart agricultural training to Village Level Workers were also started. The position of the training centres for extension personnel upto 1956 is as follows:

Table 3.

Training centres.

Category of Training Centres:	No. of Training Centres:
Village Level Workers	48
Basic Agricultural Schools	57
Extension Supervisors	17
Social Education Organisers	9
Block Development Officers	3

The latest position of the training centres of extension personnel obtained from the Directorate of Extension and Training, Ministry of Food and Agriculture is as follows:

Table 4.

Growth of Training Institutions.

Category of Training Centres:	No. of Training Centres:
Village Level Worker	
1. Integrated ²⁾	35)
2. Non-integrated	20)
Basic Agricultural Schools	
1. Integrated	19)
2. Non-integrated	42)
Extension Supervisors	20
Social Education Organisers	14
Block Development Officers	4

(Map of the training centre is shown on the opposite side.)

The detailed list of extension training institution is given under Appendix D.

In addition to the training centres, started to train the extension personnel, Extension Wings, to impart extension training to College students, were also attached to five Agricultural Colleges in 1952 with financial assistance from the Food Foundation³⁾. The College of Agriculture, Nagpur and the Nagpur University were the first in India to implement that scheme during that year.

At present almost all the University colleges (Appendix C) have Extension as one of the subjects for the I. Sc. (Agri) and B. Sc. (Agri)⁴⁾ degree course of four years and have prescribed a theoretical and practical Agricultural Extension syllabus.

Before concluding the history of agricultural development in India

1) Kurukshetra, vol. 5, 1, 1956, p. 47 - 48.

2) At the Third Conference of Principals of Extension Training Centres and Basic Agricultural Schools held at Simla in June, 1956, it was recommended, "There should be integrated courses for imparting training in basic agriculture and extension. The institutions should be integrated with the addition of Basic Agricultural Schools to Extension Training Centres. The Study Team of Community Projects and National Extension Service (1958) also recommended the introduction of integrated training courses for Village Level Workers. The figures indicate the Extension Training Centres and Basic Agricultural Schools where integration has taken place.

3) Summary record of Conference of Teachers of Extension Methods and Principals of Agricultural Colleges in India held at New Delhi, March 6, 1957.

4) Equivalent to Propodiaat and Candidaat examinations of the State Agricultural University of Wageningen.

it seems worthwhile to have a birds eye view of the achievements of the programme. It is rather difficult, however, to give a detailed account of the total quantitative achievements of the Community Development Programme. Moreover, it is not easy to separate the achievements of the Community Development Projects from those brought about by other agencies, specially non-official organisations such as mentioned previously.

The impact of the Community Development Programme has been subjected to analysis and evaluation by a number of distinguished scholars and organisations. Prof. Wilson¹⁾, Prof. Taylor²⁾, Prof. Dube³⁾, Team for the study of Community Projects and National Extension Service and many others have attempted to assess the nature, working and success of the Community Development Programme. The Bench Mark Surveys of Bhadrak and Batala Blocks also provide an insight into the working of Community Projects. It will be very difficult indeed to indicate adequately here the main findings of these studies separately. However, a few major findings need to be given.

It should be noted at the very outset that all scholars and organisations which have evaluated the Community Development Programme fundamentally accept the economic policy of the Government of India and of the Five Year Plans. Furthermore, all these evaluators have assumed that the Community Development Programme is both desirable and appropriate as a technique of reconstructing the agrarian economy and society of India. It is therefore necessary to make explicit the major assumptions taken for granted by others. As Prof. Taylor remarks, "The whole concept of the plan of Community Development Extension Programme is that the local self-help village groups will mobilize their natural and human resources for local improvements of all kinds and all technical agencies of Government will aid them in this undertaking".

It implies, according to him, 1. initiative of people in both formulating and executing the programmes, 2. therefore the schemes of generating and organising a large number of voluntary associations almost of primary group nature and also a wide variety of local institutions, 3. reliance upon the work group techniques, 4. active participation of the people in all the stages of implementation, 5. governmental administrative machinery which acts as an assisting body.

According to the Evaluation Report on the working of Community Projects and National Extension Service Blocks⁴⁾ the following conclusions have been drawn regarding the achievements of the Community Development Programme:

- 1) Wilson, M.L. Community Development Programme in India, 1956.
- 2) Taylor, Carl, C. A critical Analysis of India's Community Development Programme, 1956.
- 3) Dube, S.C. India's changing villages, 1958.
- 4) Evaluation Report on working of Community Projects and N.E. Blocks vol. I, Government of India, April 1957, pp. 17 - 21.

1. Almost all the villages have been covered by one or more items in the programme.
2. Items involving physical change, especially constructional and irrigational activity are widespread and have contributed in some measure to the production potential of the block areas.
3. Items involving physical change in production attitudes are successful while it is not possible to say anything about changes in production attitudes among artisans due to the fact that programmes concerning cottage industries are neither widespread nor particularly successful.
4. Items involving changes in standards of living, especially in regard to primary education and drinking-water are comparatively successful, while those concerning adult literacy and personal and environmental hygiene are not equally successful.
5. Items involving change in social attitudes such as readiness to go in for or maintain Community Centres, youth clubs and women's organisations are, generally speaking not particularly successful.
6. Items involving change in organisational attitudes in economic field such as better understanding of objectives and obligations of co-operation and readiness to make use of co-operative societies for purposes other than credit such as production and marketing are comparatively unsuccessful.
7. Items involving change in organisational attitude in political field, such as better understanding of the objectives and responsibilities of panchayat membership and readiness to use panchayats for planning and executing village development programmes are comparatively unsuccessful.
8. The objective of inducing public participation has been comparatively successful in the case of constructional programmes, but not in case of institutional programmes.
9. Too much dependence on Government initiative and assistance is still being exhibited by the vast majority of the rural population affected by the programme.
10. The rural population in the project area is, generally speaking now developing a feeling that the Government is there not merely to rule but also to help. In fact, expectation of what the Government can do to help has perhaps reached a stage beyond the current resources of the Government. On the other hand there has not taken place an equally strong sentiment of self-reliance and initiative, either individual or co-operative. Unless, therefore, the Government deploys more resources in rural areas and the people, in turn, show greater initiative and self-help, a situation is being created in rural India which is bound to give rise to serious difficulties.
11. There is wide disparity in the distribution of achievements and therefore of the benefits of the Community Development Programme. This disparity exists between different blocks in the project areas. Within the blocks it exists between the Head Quarter Villages of Village Level Workers, the villages easily accessible to them and the villages not so easily accessible.

Within the villages, it exists between cultivators and non-cultivators, and within the cultivating classes, it exists between the cultivators of bigger holdings and larger financial resources.

12. Orientation of the project staff in the objectives and techniques of Community Development and of the Five Year Plan is neither adequate nor uniform in distribution.
13. Advisory Committees at block and district levels are still to play the role that was expected of them in the development programme. This is due partly to defective membership and partly to continuing reluctance of the official machinery to make full and positive use of the Advisory Committee.

In all, five Evaluation Reports on the working of Community Development and National Extension Service Blocks have been published by the Programme Evaluation Organisation, Planning Commission of the Government of India, since the start of the Community Development Programme in 1952. The last and fifth evaluation report has been published in 1958. In it emphasis has been laid on a relatively intensive study of a few selected topics, such as acceptance of agricultural practices, study of Panchayats etc., rather than an extensive review of all aspects of the Programme. The most common methods used for evaluation reports are interviews, schedules and questionnaires.

Nevertheless, the Indian Community Development Programme is an impressive and pioneering venture. Its results may influence the developments not only in Asia but in many other technologically under-developed areas of the world as a whole. A beginning has been made but the programme so far certainly has not done much more than to touch the surface of the complex and difficult problems of the Indian masses. However, there are some signs that the great masses of rural India are awakening. The awakening must be followed by determined efforts to channel the vast man-power and human resources of the country into creative and productive pursuits. The task is vast and challenging and will not permit any delay. The world wide praise that has greeted the Indian Community Development Programme should not blind the planners to the many pitfalls that still exist and lie ahead. Through critical self-evaluation and innovation, efforts should be made to make the programme more effective.

C H A P T E R II.

AGRICULTURAL POSITION IN THE NETHERLANDS AND INDIA.

In dealing in the scope of a single chapter with the agricultural position in the two countries, it is necessary to restrict the description to the broadest outline. As a result only those factors which are relevant for the present agricultural position have been discussed.

Land utilisation.

With land utilisation the sole and main concern is with the economics of land use as actually in evidence within the limitations imposed by physical factors, though the importance of physical factors concerning land, which belongs to the realm of geography and physical sources, cannot be ignored in discussing the issue; in fact they are the frame work in which the economics of land use operate¹⁾.

The whole system of land utilisation as it is found in both countries reflects established practices which have remained unchanged for many years. However, there seem to be two factors governing the land use:

1. The physical factors like climate, topography and soils.
2. The human factors like the length of occupation of the area, social and economic institutions such as the system of land tenure, the density of population and the level of cultivation of the population which determine the extent to which the physical capacities of the land are utilised.

The following table shows the land utilisation in the Netherlands and India:

Table 5²⁾

Land utilization (1956)

	India - in 1000 hectares	-	Netherlands	
Total Area	328888	(percentage of Total Area)	3254 ³⁾ (percentage of Total Area)	
Arable land, fallows and orchards	158341	48.12	1054	32.48
Permanent meadows and pasture	11155	3.40	1251	38.55
Forest Land	50089	15.24	249	7.70
Other Land (unused, built up, waste land etc.)	109303	33.24	641	21.27

1) Ely and Wehrwein-Land Economics, 1940, p. 24

2) Compiled from the Year Book of Food and Agricultural Statistics F.A.O. 1957, Vol. XI, part I.

3) Land area only.

From table 5, it is clear that the percentage of area under arable farming, fallow and orchards is more in India than in the Netherlands. But the situation is the reverse in case of area under permanent meadows and pastures. Whereas the percentage of area under built up, waste land and unused, but potentially productive land, is higher in India as compared with that of the Netherlands and the same is the position in case of the area under forests. The table demonstrates the predominance of live-stock or dairy farming in the Netherlands and arable farming in India.

Physical factors.

1. Season and Rainfall.

The most important feature in the meteorology of India is the alternation of monsoon, seasonal winds whose direction more or less reverses twice during the year, i.e. in Summer (June to September) the general flow of wind is from sea to land and in Winter (October to March) the wind over the country is mainly from continental origin. The former wind is known as South-West Monsoon and the latter North-East Monsoon. Based on these climatic variations there are roughly speaking, two main agricultural sowing seasons, June-July (Kharif) and October-November (Rabi). Rainfall distribution is shown in Appendix G.

In the Netherlands the annual rainfall amounts to 700 mm¹⁾. There is a fair distribution of rainfall, the average of the month being 44 mm during the driest months i.e. March and April and 74 mm during the wettest month, August. India exhibits great diversity of climate between the regions as compared with the Netherlands. In Northern India alone Assam in the East and Rajasthan in the West present a contrast of dampness and dryness. Again Punjab is of the most pronounced character with extreme summer heat and almost freezing cold, while in the South an almost unvarying heat with great humidity prevails throughout the year. However, the Netherlands has a relatively mild climate owing to the prevailing westerly sea-winds and the warming effect of the gulf-stream in the sea-water²⁾.

2. Soils.

Generally speaking, the soils of the Netherlands can be divided into greatly different parts. The West and North of the country consists of mainly low-lying clay and peat soils, whereas the East and South are built up of diluvial soils³⁾. Part of these diluvial soils was formerly covered with high peat. Most of this high peat is stated to have been cut and used as fuel. The remaining loose layer was covered with sand and this after reclamation yielded a good soil of an excellent character. The low peat soils and the low stiff clay soils are less suitable to arable farming, but well suited to grazing purposes. The younger sea-clay soils are chiefly used for arable farming.

1) Physical planning in the Netherlands, 1955.

2) E.W. Hofstee - Rural Life and Rural Welfare in the Netherlands, 1957, p. 3.

3) C.H. Edelman - Soils of the Netherlands, 1950, p. 8.

The soils in India in the widest sense can be classified into the four main groups¹⁾: The Red soils, Laterite and Lateritic soils, Black soils and Alluvial soils. Alluvial soils are by far the most important agriculturally and they cover an extensive tract of the country. They are distributed mainly in the Northern and North-Eastern parts including the states of Punjab, U. P., Bihar, parts of Assam and Orissa. In addition to these four major groups of soils there are also other types such as Forest and Hill soils, Saline and Alkaline soils, Desert soils and Peat and Marshy soils.

The importance of different types of soil lies in the fact that the soil types determine to a great extent the kind of crops that could be sown on them or it can be said that soil types determine the pattern of crop distribution. For instance, in India groundnut and millets can be grown efficiently on red soils, cotton flourishes well on black soils and cereals on alluvial soils. Accordingly in the Netherlands low peat and stiff clay soils are most suited to grazing and younger clay soils to arable farming.

Arable crops.

It is estimated that only 11.9 per cent of the crop-area is sown more than once per year in India²⁾. The main limiting factor seems to be the deficiency of moisture. In the Netherlands too, double cropping is more or less impracticable, except for the sandy soils where rye forms the main crop and usually after its harvest a fodder crop such as turnip is grown. In the arable farming areas (sea-clay), wheat is generally taken as a main crop in the Netherlands. However, only one crop can be grown usually because of the very cold season during winter. Consequently double cropping in India is difficult because of the deficiency of moisture and in the Netherlands because of the cold season.

Grazing is an important use of land which has received considerable attention in the Netherlands. In the words of Prof. Hofstee, "The natural pastures are almost non-existent in the Netherlands and practically all the pastures are made up of grassland which is looked upon as cultivated land". But in India the area under pastures is very small and the cattle population is tremendous. The consequence has been that live-stock was dependent on stray grazing supplemented by stalks of grains like millets, wheat, rice, etc. Besides, whatever pastures are available they are over-grazed which leads to the destruction of forests and soil erosion in the country.

The following table shows the common crops grown in the two countries with special reference to the area under each crop and its yield.

In addition to the crops shown in the following table there are still more crops sown in each country. But the main idea of giving this table is to depict common crops grown as cereals and non-cereals in the Netherlands and India. The table in general gives the backwardness of Indian agriculture in comparison to Dutch agriculture.

1) S. P. Ray Chaudhary-Integrated all India Soil and Land use Survey Scheme, 1955.
2) India (A Reference Annual), 1957, p. 297.

Table 6 (1957)¹⁾

crops	country	area in 1000 ha	production in 1000 Metric Tons	yields in 100 kg/ha
Wheat	Netherlands	86	309	35.9
	India	12,297	8707	7.1
Barley	Netherlands	74	273	36.9
	India	3392	2793	8.2
Oats	Netherlands	153	482	31.6
	India	-	-	-
Potato	Netherlands	144	3042	222.0
	India	284	1701	60.0
Linseed	Netherlands	32	27	8.3
	India	1521	355	2.3

The yields of wheat per hectare in the Netherlands is as much as five times that in India. It is four times as much for barley and 3.4 times as much for potato and linseed. One of the main reasons for increase crop yield in the Netherlands is the increasing use of inorganic fertilisers as shown in the following table:

Table 7¹⁾ (in 1000 tons)

Fertilizers	1953		1954		1955		1956	
	India	Netherl.	India	Netherl.	India	Netherl.	India	Netherl.
Nitrogenous	63.1	148.3	110.5	187.0	141.7	187.3	154.4	189.4
Phosphoric	11.5	115.6	14.4	108.4	12.2	110.6	14.0	110.9
Potasic	3.2	151.2	15.7	146.1	6.7	165.4	13.3	151.6

The use of the above stated fertilizers is several times higher in the Netherlands than in India, specially when the total cropped area in each country is taken into consideration. From this it can be concluded that there is more intensified production of crops (greater capital investment) in the Netherlands than in India. Moreover, not only the yields of the arable crops are higher in the Netherlands in comparison with those of India but the yields of some of the crops such as wheat, oats, potato etc. are the highest in the world²⁾.

Land Holding.

The problems under land holding have two aspects: the existing size of the individual production unit and the actual pattern of distribution of the plots under each unit, denoted by terms of sub-division and fragmentation. Both sub-division and fragmentation have circumscribed the application of efficient methods of cultivation. By fragmentation is meant the stage in the evolution of agricultural holdings in which a single farm consists of numerous discrete parcels³⁾, often scattered over a wide area.

1) Compiled from Year Book of Food and Agricultural Statistics, 1957.

2) Ibid.

3) The Consolidation of Fragmented Agricultural Holdings, F.A.O., 1950, p. 5.

The average size of land holdings in the Netherlands according to their ownership in the years 1910, 1921, 1930, 1938 and 1950 are given in the following table:

Table 8¹⁾ (in hectares)

Years	Farmers	Agricultural Labourers	Horticulturists
1910	11.7	0.73	2.27
1921	10.9	0.70	2.37
1930	11.0	0.76	2.28
1938	11.1	-	1.90
1950	11.0	0.33	2.01

The average size of an agricultural farm in the country is 11.4²⁾ ha. Where as the average size of land holdings in some of the states in India is given below:

Table 9³⁾

States	Hectares	States	Hectares
Assam	2.12	Hyderabad	5.64
Bihar	1.64	M. Bharat	4.84
Bombay	3.90	Mysore	2.88
M. P.	5.56	Rajasthan	6.76
Madras	1.80	Saurashtra	11.84
Orissa	2.24	Travancore and Cochin	0.96
Punjab	4.73	Jammu and Kashmir	1.52
U. P.	2.12	All India	3.00
W. Bengal	1.96		

From the above tables it is clear that the average size of farm holdings in India is much smaller than that in the Netherlands.

In India the more wide-spread and obstinate problem of land holding is that of the uneconomic size. In Punjab the number of holdings below 3 acres increased from 43.3 % of the total holdings in 1925 to 48.8 % in 1939⁴⁾. In Bombay the average holding decreased from 40 acres in 1871 to 7 acres in 1915⁵⁾. Fragmentation, however, also plays an important part. A striking example of fragmentation of a holding is given by Dr. Mann from the village Pimpla Soudagar in Bombay where he found 150 owners had amongst them no less than 729 plots, of which 463 were less than 1 acre and 211 were less than a quarter of an acre⁶⁾. A similar example was found by Bhalla according to whom in the village of Bairampur in Punjab 34.5 % of the cultivators had over 25 fragments each⁷⁾.

1) Interpreted from Rural Life and Rural Welfare in the Netherlands, 1954, p. 34.

2) Ibid, p. 35.

3) Indian Agriculture in Brief, 1957, p. 57.

4) Report of the Famine Enquiry Commission, 1945, p. 256.

5) Ibid.

6) Ibid.

7) Consolidation of Holdings, Reserve Bank of India, 1951, p. 86.

It can also be stated that in India there has been a tendency in farm holdings to decrease, whereas in the Netherlands their average size remained more or less the same (Table 8) upto 1950. But afterwards land holding size seems to have increased.

The ill effects of sub-division and fragmentation of land holdings were first of all realised in India by the state of Baroda (now merged in Bombay) and on the recommendation of a committee set up in 1917¹⁾ restrictions were laid down by which cultivated land could not be divided below 18 bigas (4.5 acres) and nursery land below 15 bigas. At present in states like Bombay, Punjab, M. P., Delhi, Jammu and Kashmir etc. the legislations permit the Government compulsory consolidation of scattered land holdings in an area and also to prohibit sub-division below a certain minimum area called "standard area". Any partitions and transfers which have the effect of reduction on any holding below the size of "standard area" are not permissible. But such legislations are of recent origin.

To prevent the emergence of uneconomic holdings²⁾, in U. P. the Government has fixed a minimum of 6.5 acres as the limit, Hyderabad 2 to 24 acres, Delhi 8 acres and M. Bharat 15 acres.

In general, the consolidation work in India reveals that consolidation proceedings are usually initiated by the Government. However, the success of consolidation is limited by the suspicion of holders and other natural factors such as wide variation in soil fertility, productivity, the conditions of water supply, the type of farming, etc. The financial implications involved in paying the compensation for the rearrangement of the fields and meeting the expenses of the measures of improvement undertaken as a part of the operation, present another serious bottleneck in the effective execution of the legislation.

The problem of undersized farm-holdings in the Netherlands is being solved in two ways:

1. Internal reform which means that small holdings are enlarged by addition of reclaimed land and by purchase of extra land in re-allocation areas.
2. External reform which means the land is made available somewhere else³⁾.

It was in the year 1924 that in the Netherlands the first legal provisions, dealing with the consolidation or re-allocation of land holdings, were provided. Under them a vote had to be taken amongst the owners concerned. A double majority was necessary before a scheme of re-allocation of farm land could be carried out, that is, first, a majority of land owners and, secondly, a majority of farm-

1) India (A Reference Annual) New Delhi, 1957, p. 250.

2) Opinion differs on the concept of economic holdings. Keating defines it as a holding which allows a man a chance of producing sufficiently to support himself and his family in reasonable comfort after paying his necessary expenses. Dr. Mann defines it as one which will provide for an average family the minimum standard of life. The Central Committee of the Govt. of India on Land Reforms defines it as the minimum area which in the opinion of the Govt. will provide a nominal family of five members with sufficient income to maintain itself in reasonable comfort.

3) Agriculture LXII, 7 (1955).

ers representing the greater part of an area. In 1938, a new law was passed which stimulated the re-allocation of land very considerably and differed from that of 1924 in the fact that a single majority was considered sufficient. Besides, measures were taken to reduce the costs of regrouping¹⁾.

The present legal arrangements provided for the consolidation of land holdings in the Netherlands may be classified into two groups:

1. Regrouping by mutual agreement.
2. Regrouping by law.

In the former case all the owners affected (not less than three) can agree to pool their land and redistribute it according to a prearranged plan. In the latter case, the general responsibility of regrouping is put on a Central Commission formed partly of representatives of agricultural organisations and partly of officers who act in an advisory capacity. The responsibility for the re-allocation scheme is put, in the first instance, upon a local commission consisting of five members and appointed by the provincial administration on the advice of the Central Commission.

With regard to the cost of re-allocation, the law provides that the state will bear the expenses of the Central Commission in making the plans, the expenses of meetings, publications and such like. In the beginning all the expenses are advanced by the state and after the scheme has been carried out, it is apportioned according to plot size. The amount debited to the plots are payable by the farmers over a period of 30 years at 5 % and are levied through the land tax³⁾.

Table 10 ³⁾

Consolidation of Land Holding (in hectares)		
State/Union Territory	Work Completed upto 31-12-'57	Work in Progress on 31-12-'57
Andhra Pradesh	-	76936.4
Assam	-	-
Bihar	-	102354.0
Bombay	512257.0	471816.8
Madhya Pradesh	1198174.0	87856.8
Madras	-	-
Mysore	155733.6	180444.0
Orissa	29.3	-
Punjab	38 32349.6	2246955.2
Rajasthan	8400.0	144847.6
Uttar Pradesh	559436.8	1494051.6
West Bengal	-	-
Delhi	80733.6	-
Himachal Pradesh	8704.8	10440.4
Manipur	-	-
Pondicherry	-	-

1) A. Rienks - Re-allocation of farm land in the Netherlands. International Journal of Agrarian Affairs, vol. I, No. 4, 1954, p. 33.

2) Ibid, p. 43.

3) Compiled from India (A Reference Annual), 1959, p. 346.

Thus it is evident from the provisions provided in both countries that land consolidation is being carried out by law. In the Netherlands it is, however, possible as well by mutual agreement among farmers. The financial implications involved in paying the compensation for the rearrangement of the fields are serious obstacles in India in the consolidation programme, as the economic life of the farmers is uncertain and the latter may not pay the expenses regularly. Where as the problem of consolidation-cost payment is not so serious in the Netherlands.

In spite of all such difficulties a considerable cultivated area has been consolidated in India, specially during the First Five Year Plan period about 850000 hectares were consolidated in Bombay, 1174500 hectares in Madhya Pradesh, 1944000 hectares in Punjab, 5265000 hectares in P. E. P. S. U., and 1782000 hectares in Utter Pradesh. The above table showed the progress of the consolidation of land holdings in the different States of India upto December 31st, 1957.

Live-stock-Position.

Cattle plays a very important role in Indian as well as in Dutch agriculture. But whereas in the Netherlands cattle is mainly kept for milk and meat, in India their primary purpose is draught for the plough or cart. "Without the ox", wrote the Royal Commission on Agriculture in India (1928), "no cultivation would be possible; without the ox no produce can be transported¹⁾. In India cattle supplies motive power for almost all agricultural operations such as ploughing, lifting water from wells, transportation of produce to the market, whereas in the Netherlands all such operations are generally carried out by mechanised power. Thus in India without cattle fields remain unploughed, stores and bins stand empty and food and drink loose their savour and for a vegetarian country what can be worse than to have no milk, no butter and Ghee (butter).

In view of the great importance of cattle in Indian agriculture their present position is deplorable. With the increasing popularity of the cultivation of food and commercial crops, the majority of farmers have come to regard animal husbandry as an accident of agriculture rather than as an integral part of it²⁾.

For every hectare of net area sown 16.7 cattle is kept in India, against 2 for³⁾ every hectare in the Netherlands. India has the largest cattle population in the world but the productive value of the cattle is not corresponding with their number. In fact the large number of deminutive cattle is a serious drain on the country's

1) The Royal Commission on Agriculture in India, 1928.

2) The Economics of Indian Agriculture, Madras, 1951, p. 255.

3) Dutch Agriculture, 1947, p. 65.

limited fodder supply and eats into the profits from agriculture. The Royal Commission on Agriculture has summed it up so well, "The worse the condition for rearing cattle, the greater the number tend to be. As the cattle grow smaller in size and greater in number the rate at which the condition becomes worse for the breeding of good live-stock is accelerated".

The following table shows the position of cattle in the two countries:

Table 11¹⁾

Livestock number for 1951 and 1956 (in 1000)					
year	country	horses	cows	pigs	poultry
1951	India	1437	143500	4022	58248
	Netherlands	267	2659	1561	22432
1956	India	1503	145000	4660	97372
	Netherlands	210	2980	2332	36022
Ratio in 1956 between India and Netherlands		7.1 : 1	49 : 1	2 : 1	2.7 : 1

There has been an increase in the livestock number in both the countries except for horses in the Netherlands. The decrease in the number of horses in the Netherlands may be due to increased mechanisation in agriculture leading to the displacement of the former. The probable reason for the increase in the number of cattle in the Netherlands seems to be the increased capacity of grasslands due to adoption of rotational and ration grazing, proper maintenance, increased fertilization etc. with the result that more animal units could be maintained. Whereas in India this increase may be natural and some may also be attributed to increased veterinary aid during the First Five Year Plan (1952 - 1957). It must be noted that in India the keeping of pigs is taken as a task of low dignity, as they are mostly maintained by Harijans (untouchables). But this is not so in the Netherlands. As far as sheep and goats are concerned they are mainly used for meat purposes in India and their flesh is most valued, whereas they are in very small numbers in the Netherlands as they may not withstand such a temperate climate. Similarly, buffaloes are found in India and even form a major source of milk supply in some parts whereas they may not survive in the Netherlands.

If we compare the production of cow milk, in the two countries it is much lower in India as compared with that in the Netherlands.

Table 12²⁾

Country	Production of milk in metric tons/year
India	7756.0
Netherlands	5943.0

1) Compiled from the Year Book of Food and Agricultural Statistics, 1957.

2) Compiled from the Year Book of Food and Agricultural Statistics, 1957.

The ratio between the number of cows in India and the Netherlands is 49 : 1 (Table 11) and that of the milk is 1.3 : 1. This shows the average yield of an Indian cow is several times lower than that of a Dutch one. The average annual yield of eggs per hen in India is lower than in the Netherlands, the number being 100 and 170 respectively¹⁾.

Some of the reasons of low milky yields in India in comparision to the Netherlands are that the cows are underfed, that there is a lack of a proper breeding programme and a lack of veterinary aid etc. In India housefeeding is rare and the grasslands are over stocked. Whereas in the Netherlands, at least during the winter, cattle is house stall-fed and the pressure on grassland is relatively lower. Besides, whatever grassland is available in India it is not properly maintained, as the growth of grass is considered entirely a natural process and no efforts are made to enhance its yield. On the other hand in the Netherlands almost every farmer has divided his pasture land into more or less uniformly sized plots and a proper system of grazing is followed. Very little or negligible attention is paid by the farmers in India to the breeding of cattle by scientific selection and mating. Cattle is hardly enclosed and good and healthy cattle is allowed to mix with the weak and degenerate types, which leads to steady deterioration. Attempts at improving the cattle by selection and the improvement of the best breeds have, therefore, to be made in India by the Government. As early as 1937 a scheme of "gift bulls" was inaugurated by His Excellency the Viceroy, Lord Lin-lithgo²⁾. But mere provision of bulls for breeding purposes was not of much use, as no effective ways could be devised to dispose of the scrub bulls. Because of their sacred character interference with their freedom is regarded as a sin and plans to castrate them are viewed as unadmissible by most of the villagers.

Key Village Schemes³⁾ were started with 150 artificial insemination centres. But there are many problems to overcome before artificial insemination can be a succes. Firstly, villagers are not used to watch for the time when the cattle is ready for impregnation. Often scrub bulls impregnate them before the condition is noticed by the farmer. Then, the necessity of taking them to a distant artificial insemination centre interferes with their other activities. Finally, some people get worried about the mechanical interference with the body of the cow and the denial of natural satisfaction is considered a sin. The problem of breeding is further complicated, as in India the breeding programme should aim at a dual improvement i.e. to get cows to produce a high milk yield and oxen of good draught quality. Last but not the least the problem of cattle improvement requires the disposition of unwanted cattle. Solong as this unwanted

1) Dutch Agriculture, 1953, p. 91.

2) The Economics of Indian Agriculture, Madras, 1951, p. 260.

3) These Key Village Schemes were started during the First Five Year Plan envisaging the castration of scrub bulls, control of breeding operations by artificial insemination, the raising of calves on subsidised basis, development of fodder resources and marketing of animal husbandry products on co-operative line. Each artificial insemination centre is to serve about 5000 cows of breeding age.

cattle, such as low yielding ones, remains undisposed, our programmes of cattle improvement in the spheres of breeding and feeding are bound to produce meagre results. However, disposition of cattle will meet resistance from the rural people, the former being a step against religious and social values.

However, the problem of breeding seems to be more or less solved in the Netherlands. The breeding of cows is carried out by Herdbook societies. There seem to be two herd-book societies in the Netherlands: The Netherlands Cattle Herdbook Society (N. R. S.) and the Frisian Cattle Herdbook Society (F. R. S.). The former extends its activities over all provinces, except Frisland where the latter operates and registers animals of three known breeds of the Netherlands i.e. Black and White Frisian-Holland Cattle, Red and White Meuse-Rhine Yessel Cattle and Black and White faced Groningen Cattle, forming approximately 72 %, 24 % and 4 % respectively of the total cow population in the country¹⁾.

According to Government regulations the application of artificial insemination is only permitted if carried out by organisations providing an exact registration of all calves born, in order to facilitate progeny testing at a later date. The organisations carrying out artificial insemination were 160 in 1951 each serving about 2000 to 5000 cows²⁾. This number might be very high at present, as artificial insemination is a widely accepted practice in the Netherlands.

The weak and ill fed Indian cattle have very little power of resisting infections. Diseases such as Rinderpest, Foot and Mouth carry thousands of cattle away every year and leave the rest in an exhausted position. Thus uncertainty of cattle life may compel Indian farmers to keep large reserves of cattle, to neglect their quality and may make the large owners unwilling to undertake scientific cattle breeding. The control of the contagious diseases among livestock and the treatment of sick animals in hospitals are the two chief functions of the veterinary departments. Much progress seems to have been made to check contagious diseases by inoculations of protective sera or by vaccination. But at times the farmers resist to such inoculations on account of their ignorance which tends to hamper the work of veterinary department.

In the Netherlands it seems easier to eradicate cattle diseases, especially amongst cows, as there are only two herdbook societies with which all the cows of the country are registered. It is the co-operation of these societies that is needed for the success of a disease control campaign. In 1951 the Dutch Government in co-operation with these societies carried out a five year plan aiming at the eradication of bovine tuber-culosis. The result has been that almost all the cattle seem to be free of this disease.

Land Tenure.

Land tenure determines the relation of the actual cultivator to the soil. On account of this relationship the types of land tenure fall into

1) Facts - 1953, p. 71 - 73.

2) Ibid, p. 73.

two main classes. Firstly, the land may be cultivated by the owner himself with or without the help of hired labourers. This is known as owner farming. Secondly, the farmer may not own the land on which he works, but has it on lease for a longer or shorter period from the owner on certain terms. This is known as tenancy farming.

The following table shows the position of land tenure in the Netherlands

Table 13¹⁾

Owners and area of owned land as percentages of all occupants of land and total area of cultivated land respectively

Year	Owners	Area of owned land
1910	50.8	46.98
1921	56.0	51.74
1930	56.2	50.79
1948 ²⁾	49.6	42.78
1955 ²⁾	52.6	47.0

The interpretation of Carver³⁾, that the most efficient agriculture and intensive farming in the world is being carried out in areas with a system of tenant farming holds true in case of the Netherlands as about 53 % cultivable area was under tenant farming in 1955. However, the presented picture becomes a bit changed when it is noticed that out of the total leased land 14.3 %⁴⁾ is the property of a relative of the occupants, usually their parents. In the words of Prof. Hofstee this type of leased land can be termed as latent property of the occupants.

According to the above table the percentage of the owner cultivated area in 1910 was 50.8. In 1921 this percentage grew to 56.0 which may be attributed to the good financial results in farming during 1910 to 1920. But the percentage of owner farmers seems to have declined between 1930 to 1948, because of the financial crises landowners seem to have given their land to tenants on lease. The other reason for this decrease in percentage of owner cultivation or the increase of area under leased farming may be legislative measures taken by the Government to safeguard the interest of tenants and the law of inheritance⁵⁾. However, again in 1955 an increase is noticed in the percentage of owner cultivators and owned land which may be due to favourable prospects in agriculture.

Highlights of legislative measures taken by the Dutch Government to safeguard the interest of tenants are:

a. the term of lease is to be fixed by law to 12 years on a farm with buildings and 6 years on one without buildings;

1) Compiled from Statistiek van de bedrijfsfroote en de eigendomsverhoudingen in de landbouw, 1948, p. 50.

2) Rural Life and Rural Welfare in the Netherlands, 1957, p.37.

3) Principles of Rural Economics, p. 189.

4) Rural Life and Rural Welfare in the Netherlands, 1954, p. 37.

5) According to the Law of Inheritance in the Netherlands only one son of a farmer can be the owner of the land and if the other sons want to have some land for cultivation, they have to be tenants.

- b. if a tenant fulfils his obligations he has a right to continue the tenancy unless the leaser wants to cultivate the land himself;
- c. if the tenant leaves, rather, is forced to leave he has the right to claim a reasonable compensation for the property or the permanent improvement he has made;
- d. before a lease is legalised it has to be submitted to the Provincial Lease Board;
- e. and finally in case of disputes an appeal can be made to the Central Lease Control Board.

The Dutch Government also provides restriction on purchase price of land so that they remain within the reach of tenants.

The origin of land tenure systems in India is to be found in the form of collection of land revenue. Lord Cornwallis in 1793, anxious to ensure a steady collection of land revenue, gave to revenue collectors or Zamindars proprietary right over their estates in return for their agreement to pay a fixed amount on them as land revenue to the British. Invariably the individuals, made responsible in this way, encroached on the right of cultivating holders who gradually sank from the status of peasant proprietors to the position of tenants. This resulted in the Zamindari tenure system. In some parts of India mainly U.P. and Punjab the British dealt with a body of co-sharers collectively and thus made them jointly and severely responsible for the payment of land revenue. Hence originated the joint village or Mahalwari tenure. In other places where individual cultivating holders were made responsible to pay land revenue direct to the Government the owner or Ryotwari tenure system came into existence. The position of land tenures of some of the States of India in 1947 - 1948 has been given below:

Table 14¹⁾

Position of Land Tenure in 1947 - 1948
(in 1000 acres)

States	Zamindari and Mahalwari	Ryotwari	Total
Assam	3357	29259	32616
Bihar	44327	-	42327
Bombay	3965	46878	50843
M.P.	51465	11293	82548 ²⁾
Madras	20946	59924	80870
Orissa	16212	3930	20142
Punjab	22968	-	22968
U.P.	68287	-	68287
W.Bengal	18542	-	18542
Total	250069	151284	421144
Percentage	62	38	100

1) Land Revenue Statistics, 1947 - 1948.

2) Including 19791 thousand acres of Govt. forests.

The Land Revenue Commission, Bengal¹⁾ stated that the Zamindari system has not been without its advantages. It gave the Government the great advantage of stable revenue even in years of drought and floods. It saved the Government from the trouble of collecting the rent from innumerable small holders. But all these advantages, the commission holds have been bought at a very heavy price. The Zamindari system has had disastrous effects such as:

- a. Government officers lacked close contact with and intimate knowledge of rural conditions;
- b. Zamindars did very little to promote agricultural development;
- c. negligence of the land, because there was a big chain of parasitic rent receivers and in some areas as much as 40 - 50 lived on the labour of the actual cultivator;
- d. the remission of the rent to the cultivators became difficult during floods and drought and
- e. the rent paid by the tenants was not fixed on any scientific principles and recognised in relation to the quality of land.

In the apt words of the commission, "the Zamindari system is unsuited to Indian conditions and has brought about a situation in which the welfare of the agriculturists is neglected and a great proportion of landwealth is appropriated by middle men most of whom have no connection with agriculture".

Though efforts have been made provincially to improve the land tenure system yet the pressing need for such improvements was only realised after the report of the above mentioned commission. There seems to be a definite acceleration in the tempo of reform which came into operation in April 1951. The First Five Year Plan included a scheme of land reforms for the entire country to achieve the objectives of increase in production and reduction in disparities. Some of the highlights of the scheme are²⁾: the abolition of intermediaries between state and tillers, provisions of security of tenure, fair rents, the right for a tenant to purchase land, the fixation of a ceiling on land holdings and the distribution of surplus land.

In most of the States of India intermediaries have almost been abolished and the uncultivated land has been acquired and is being administered directly by the state or through local agencies such as village councils. States like Assam, Bombay, M.P., Orissa, Madras, U.P., Hyderabad, Delhi, H.P. etc. have enacted legislation to ensure that the maximum rent should not ordinarily exceed 1/4 of the gross produce. In Delhi the law provides for the compensation which is about 20 to 40 times the annual land revenue after which the cultivator can claim the ownership of the land, provided he has had the land for more than 12 years³⁾. During the first plan period a large number of States took steps to protect the tenants. They provided temporary protection to tenants from eviction; minimum period of tenure, fixity of tenure and settlement of agrarian

1) Report of Land Revenue Commission, Bengal, vol. I, 1938.

2) The First Five Year Plan, Govt. of India, 1951.

3) India (A Reference Annual), 1957, p. 253.

disputes among the tenants and landowners. In Andhra the law provides a minimum tenure of 6 years for tenants and fixation of maximum rent at 55 % of the gross produce in case of irrigated land and 45 % for dry lands. In Bombay legislation was introduced in 1950 to confer permanent rights of ownership on tenants. Similarly, in other states too legislative measures have been taken to provide security of tenure, the right to purchase land ownership etc.

The Planning Commission of Government of India ¹⁾ has recommended that states should work out detailed plans to fix a ceiling on land holdings, keeping in view the agrarian problems of the area concerned. The imposing of ceilings has two forms, namely, that on future acquisition and that on "existing" holds. A ceiling of future acquisition exists in U. P. and Delhi at 30 acres, Bombay at 12 to 48 acres, West Bengal at 25 acres and in Madhya Pradesh at 50 acres²⁾. Whereas ceiling on existing holdings exists in W. Bengal at 25 acres, P. E. P. S. U. at 30 acres, but 40 acres in case of displaced persons, Himachal Pradesh at 30 acres and Jammu and Kashmir at 22.75 acres.

It is also interesting to note that the term ceiling applies to the family holding and not to the individual holding. A committee of the Panel on Land Reforms, set up by the Planning Commission has recommended that a ceiling should be applied to the total area held by a family, the expression "family" being deemed to include husband, wife, and dependent sons, daughters and grand children.

However, farms such as tea, coffee, rubber plantations, orchards, specialised farms engaged in cattle breeding, dairying, etc., sugar cane farms operated by sugar factories and efficiently managed farms which consist of compact blocks on which heavy investment of permanent structural improvements have been made and whose break up is likely to lead to a fall in production, have been exempted from the operations of the ceiling³⁾.

After surveying the system of land tenure in the two countries, it can be stated that the provisions to safeguard the interest of tenants are of a more recent origin in India than those in the Netherlands. Moreover, up till now there seems to be no control or restriction on the purchase prices of land in India, but it does exist in the Netherlands since the beginning of the Second World War. Though the security of tenure is provided by the legislations enacted in many States of India, yet the average period guaranteed is 5 years, whereas it is 6 and 12 years in the Netherlands depending upon the improvements carried out on the farm and also upon the presence of the buildings on the same. So it is yet to be seen in India whether the security of tenure for a period of 5 years is sufficient to motivate the tenants to make permanent improvements on the farm, to use costly implements and to apply adequate measures to maintain soil fertility. Besides, the general tendency among the tenants in India is to pay rent in kind (in the form of food grains) but in the Netherlands the tenants lease the land on fixed cash payment.

1) Second Five Year Plan, Govt. of India, 1957, p. 176.

2) India (A Reference Annual), 1957, p. 253.

3) Ibid, p. 197.

Agricultural Labour.

It is calculated from the 1947 Census that agricultural labourers form about 7 % of the employed population in the Netherlands. In the course of time this percentage has undergone a considerable change, especially at the beginning of the present century. The number of agricultural labourers seems to have declined. However, this trend has not developed similarly in all districts of the Netherlands. A decline of 11 % can be traced in the marine clay soil areas, while in most of the pasture land areas the number of agricultural labourers has remained practically unchanged. In the peat colony districts of the Netherlands the number of agricultural labourers has increased by as much as 40 %, as many peat diggers have changed over to farm work when peat digging came to an end¹⁾.

Actually the term "agricultural labour" is a collective term including the permanent and semi-permanent labourers, who are engaged for the whole or almost the whole year. In Addition, there are also casual workers who work for periods varying from a few weeks to almost the whole year. There seems to be wide divergence in the number of permanent and casual labourers in the Netherlands as shown in the following table:

Table 15²⁾

Districts	% of permanent and semi-permanent labourers	% of casual labourers
Marine clay	59	41
Pasture land	73	27
Peat colonies	31	69

There is a close relation between the number of permanent and casual labourers and the "firm core". In the marine clay districts the average size of the "firm core" on holdings employing permanent labour is 3.1; in the pasture-land districts this figure is 1.3 and in the peat colonies 1.0.

The extent of seasonal unemployment or idleness among agricultural labourers does not look as serious in the Netherlands as in India. In marine clay areas in the Netherlands 90 % of the casual labourers work in agriculture during summer. This percentage is declined to 70 % in winter. However, the Dutch Governement provides supplementary employment, specially by means of the Grond Mij, Heide Mij, etc. to the unemployed agricultural workers in the winter months. Still about 7 % of the total remain unemployed³⁾. In the peat colony areas seasonal unemployment is still more serious than in arable farming ones. Only 31 % of the total number of labourers have permanent jobs. In the busiest month 68 % of the total labourers are employed in farming, 12 % working either in allied industreis or outside agriculture, the remaining 20 % being either without work or employed on public works. This figure rises

1) De Landarbeiders in Nederland, 1954, p. 144.

2) Ibid, p. 149.

3) De Landarbeiders in Nederland, 1959, p. 150.

to 50 % in the winter months. Finally the situation in the pasture-land districts is far more favourable than in the arable farming and peat colony areas. In the first place about 73 % of the workers in livestock farming are permanent employees, while casual workers are employed over a larger period than in other districts.

The main reason for this sort of seasonal fluctuation in the employment of agricultural labourers is the irregular nature of the agricultural production process.

In the Netherlands this process approaches regularity in pasture-land areas and is most irregular in the peat colonies. In arable farming districts where there is a great variety in the crops cultivated - for instance grains, pulses, other commercial crops etc. - the demand for labour is more regular than in areas where the production is more one sided, i.e. confined mainly to grains and potatoes.

In the Netherlands there mostly is a period of unemployment of agricultural labourers for 16 weeks during December to March every year. But the unfavourable effect of unemployment on the financial condition of the labourers is reduced because of the fact that they are paid "wait-money" for the first 8 weeks and "unemployed-money" for the remaining 8 weeks. The wait-money and unemployed-money together form about 80 % of the wages received by the agricultural labourers during the last 16 weeks of their employment. The wait-money consists of 50 % contributed by the employees and 50 % by the employers, whereas the unemployed-money consists of 1/3 by the Government, 1/3 by the employees and 1/3 by the employers.

The payment of wages to the agricultural labourers in the Netherlands is in cash, except for a few places where it may be in kind such as in potato growing regions. Besides, their wages are fixed and the chances are very remote that they are willing to accept lower ones. Moreover, there is a greater tendency of outflow than inflow among the agricultural labourers which helps them to avail increasing opportunities of employment and that too with reasonable remunerations. Also, in marine clay areas 56 %, in pasture-land districts 51 % and in the peat colonies 35 % of the total agricultural labourers are members of trade unions which safeguard their economic position and their welfare.

The hours of work are also fixed for the agricultural labourers in the Netherlands i.e. at 2600 hours per year or 50 hours per week. Payment of wages is made on the hour basis and not at piece-work rate. However, in dairy farms the payment of wages is made on a weekly basis depending on the nature of work on such farms.

As far as the agricultural labour, forming 60 to 70 % of the workers engaged in agriculture, in India is concerned one of its outstanding features is that a very large fraction of agricultural force has to remain idle for a period of 2 to 6 months every year. Agricultural labourers, who assist the cultivators in agricultural operations on the basis of wage, in cash, kind or partly in cash and partly in kind, get work on agricultural holdings for a limited number of days. The Royal Commission on Agriculture (1926 - 1927) stated

that most of the cultivators were unemployed for at least 2 to 4 months a year. An enquiry made by Chauhan (1949 - 1950) on 1540 farms in U. P. reveals that on an average the cultivators have 82 completely idle and 103 partially idle days in a year¹⁾. Similarly, the Congress on Agrarian Reforms (1949) states that in Bengal there is unemployment for 9 months for jute and rice growers; in Bihar and Orissa the peasant is occupied for not more than 200 days a year and in Punjab the work done by an average cultivator is not more than 150 days of full labour.²⁾ Dutta states for Madras that the paddy cultivation provides work for about 70 days a year in single-crop areas and 112 days in double-crop areas, concluding that idleness is less acute in double-cropped areas as compared to single-cropped areas. In addition, land holdings on which agriculturists work are very small in size and may not provide labour for the whole year.

In India types of agricultural crops play a great part in keeping the agricultural labour idle or busy. Some crops as potatoes, sugar cane, paddy etc. are more labour consuming as compared to wheat, gram, barley etc.³⁾. Other factors determining the demand of agricultural labour may be intensity of cultivation, degree of mechanisation etc.

The economic condition of the agricultural labourers in India can be visualised from the following table, giving the family size, annual income and expenditure. Here the agricultural labour family stands for a family in which either the head of the family or 50% or more of the earners report agricultural labour as their main occupation.

Table 16⁴⁾ (in Rupees)

State	Size of family	Annual income	Annual Expenditure
Assam	3.7	601	589
Bihar	4.5	534	574
Bombay	4.2	368	367
Madras	4.2	365	379
Orissa	4.3	340	331
Punjab	5.0	607	718
Uttar Pradesh	4.2	551	548
W. Bengal	3.9	622	636
Rajasthan	4.4	604	578
Madhya Bharat	4.8	399	372
Mysore	4.3	396	429
Jammu and Kashmir	4.5	654	785
All India	4.3	447	461

1) The Economic weekly, Oct. 8th, 1949.

2) The Report of the Congress Agrarian Reform Committee, 1949, p. 126.

3) Agricultural labour Enquiry Report on Intensive survey of Agriculture Labour, vol. I, 1951.

4) Indian Agriculture in Brief, Ministry of Agriculture, Government of India, 1957, p. 78.

Another factor which deteriorates the general condition of the Indian agricultural labourers is variation in wage payment. The wages are paid in cash, kind or partly in cash and partly in kind, payment on time basis or on a piece-work basis, with or without pre-requisites in the form of midday meal, tea or tobacco and with various combination of these modes of wage payment¹⁾. In the total wage employment in agriculture, 57.7 % of the man-days are paid in cash, 32.2 % in kind and the balance 10.1 % of days are paid partly in cash and partly in kind²⁾.

The average daily wage of agricultural labourers in India was found to be Re. 1.09³⁾, (an agricultural labourer has been taken as one who reports that he or she was engaged in agricultural operations as a hired labourer for wages for 50 % or more of the total number of days worked by him or her during the previous year). However, there are local, monthly and state-wide variations in daily wages. The average wage-level per day is highest in North India (Rs. 1.44). The reasons for this may be that the proportion of agricultural labour families to total agricultural families is lowest (10 %); the area sown per cultivator (5 acres) is relatively high and the proportion of irrigated and double-cropped area are 33 % and 19 % respectively of the net area sown. The productivity of land is also high in the North and the holdings are large as well. The other extreme of a low level of wages is found in Central India (Re. 0.81) .

Last but not least a labourer in India engaged in different agricultural operations is paid wages according to the operations he is engaged on, for instance Re. 1.28 per day for harvesting, Re. 1.22 for threshing, Re. 1.16 for transplanting, Re. 0.90 for weeding etc.⁴⁾ .

However, it is gratifying to note that the Government of India has become alive to the urgency of the problem of wages to agricultural labourers. The Minimum Wage Act was passed in 1948, under which the State Governments were required to fix minimum rates of wages for agricultural labourers by the end of 1953. Accordingly some of the states like the Punjab, Himachal Pradesh, Delhi and U. P., have already laid down minimum wages. In other states draft proposals are still under scrutiny and the Planning Commission has recommended that minimum wages should be provided in all states and for all areas and that steady efforts are to be made to enforce the wage rates which are fixed.

Although the Minimum Wage Act has come into force in many States of India there are still several obstacles to its enforcement such as:

1. the employment offered by agriculture is seasonal; the workers may prefer lower wages to unemployment;
2. lack of organisation among the workers which does not strengthen their position for collective bargaining;

1) International Labour Review, LXXIII, 4, p. 409.

2) Ibid.

3) Interpreted from Indian Agriculture in Brief, 1957, p. 80.

4) The Agricultural Labour Enquiry, 1951, p. 85.

5) Agricultural Labour - How they work and live, Delhi, 1953, p. 43.

3. the fact that most of the workers belong to backward classes and scheduled castes, which equals them to dumbdriven cattle and makes them incapable of assisting their rights;
4. indebtedness to the landowners makes them willing to accept lower wages; they are seldom in a position to extricate themselves from this burden.

The Netherlands and India.

After looking into the conditions of agricultural labourers in the Netherlands and India, one can easily conclude that they lead a very unsecure and economically poor life in the latter as compared to the former. In India the period of unemployment of agricultural labourers is about 4 - 6 months, whereas it is only 16 weeks in the Netherlands. The factors responsible for the idleness or unemployment of agricultural labourers in India are the lack of double cropping, small size of land holdings, increased number of agricultural labourers, poor economic conditions etc., whereas in the Netherlands the main factor for such responsibility is the plan of cultivation. Owing to the increased number of agricultural labourers in India and the lack of opportunities of employment in industry, they are willing to accept lower wages than those fixed by the Minimum Wage Act. But in the Netherlands the demand for labour is no longer confined to the agricultural sector, because of increased industrialisation in the country.

However, there seems to be a growing dislike for the occupation of agricultural labour among the workers in both countries. This may be because of the social status of the agricultural labourer. One of the factors responsible for the low social status is the comparative lack of prestige enjoyed by the agricultural labourer in the rural community. And since the social prestige attached to an occupation has a great influence on the enthusiasm with which it is exercised, this enthusiasm is not very marked in case of the agricultural labour group.

The other factors indicating the low social prestige attached to the occupation may be the terms of employment, occupational and working conditions, housing, the belief that farm work requires no training, the meagre chances of promotion and the seasonal employment.

After going through the agricultural positions of the two countries, in detail, it becomes evident that Indian agriculture seems to be in an underdeveloped state as compared with that of Dutch agriculture. In brief, the points of superiority of Dutch agriculture to that of Indian are, the higher yields of agricultural crops, higher annual use of chemical fertilizers, higher use of artificial-insemination in live-stock, better maintenance of grassland and following proper systems of grazing, greater security to tenants in tenancy farming, and better conditions of agricultural labourers.

The capital factor in addition to those mentioned for better agriculture in the Netherlands is, however, said to be the presence of Agricultural Advisory Services for many years. However, the efficiency of the advisory personnel depends, to a great extent, on

the training imparted to them. In India too improvement of the above stated points is being looked after under the Community Development Programme and the National Extension Service since 1952 and 1953 respectively and success has been achieved to some extent. Some of the outstanding examples depicting improved agricultural condition in India are the following:

As high as 5930 lb.¹⁾ of wheat per acre has been obtained in Uttar Pradesh and more or less same quantity (5892 lb.) in the Punjab during 1953 - 1954. Potato crop has given 60,529²⁾ lb. of yield per acre in Uttar Pradesh in 1953 - 1954. Tamili, a member of the "Sahiwal" cowherd at Indian Agricultural Research Institute, New Delhi, has given 13000 lb. of milk per lactation of 280 days³⁾.

The above figures show the presence of the potentiality in Indian agriculture and it can be as good as Dutch agriculture, provided that due efforts are made by the Community Development Programme and the National Extension Service in close co-operation with the agricultural research and training institutions.

1) Indian Agriculture in Brief, 1957, p. 40 - 41.

2) Ibid.

3) Sahiwal cows are kept at I.A.R.I. from 1905 onwards since its start at Pusa in Bihar District. It was shifted to New Delhi after the earth quake in 1934 and since 1947 it has been named as Indian Agricultural Research Institute.

CHAPTER III

SOCIAL STRUCTURE OF THE RURAL COMMUNITY

Agricultural Extension has as its principal function the diffusion of useful knowledge and practical information on science and technology so as to enable the rural population to develop and maintain a profitable and productive agriculture. While disseminating the information agricultural extension personnel seek to reach and encourage and whenever possible persuade the farmers and the families to acquire and make use of the available information.

These two phases of agricultural extension are interrelated and depend on each other. The first phase depends on technical knowledge, skill, and experience to handle the tangible and material things, such as implements, tools, animals, soils, etc., whereas the second phase, the motivation of people, because of the social character, calls for other kind of aptitude and qualification, especially the art of handling human relations. Having acquired the technical knowledge and social aptitude, an extension worker may not be successful in motivating the farmers, which might be due to impediments created by the social structure. If he overlooks the social structure, he is likely to miss the most important background of agricultural development. Because of this reason the main emphasis will be laid here on factors, such as the division of society into various classes and castes, the family unit, leadership, religion, the socio-economic status, education, etc. These factors in general, constitute the social structure of the rural community in the Netherlands as well as in India.

The Netherlands.

From time immemorial the villages have been a basic and important unit in the organisation of Dutch social polity. It still occupies a very important position in the structure of the rural community, both socially and economically. It still fills many of the social, economic and cultural needs of the rural people. Also the village usually forms the territorial basis of all kind of societies which help to satisfy cultural and material requirements. Keeping the above into consideration, it will be worthwhile to deal with the villages as a whole to throw light on the social structure of the Dutch community.

With reference to the position of the farm in relation to the village centre, three types of villages may be identified in the Netherlands, such as "Blockflur", the line village and the strip division¹⁾. In case of "Blockflur" the farms are scattered over the land. However, the line village, in which the farms are situated side by side in a long narrow row is a common type of village, especially in the West and North of the country. But the line village often does not

¹⁾ Rural Life and Rural Welfare in the Netherlands, 1957, p. 107.

have a distinct village centre; the local services are usually spread along the entire length of the village. Social and cultural life is also impaired because of the absence of a distinct centre of social activity. In regions with strip division type of villages the farms are concentrated in smaller groups, and the farm houses lie at some distance from the land belonging to them. Here too the spatial structure of the village greatly affects the social relations among the members of the village community. The strip division type of villages are noticed in the sandy region.

Social units, such as neighbourhoods are found within the villages, especially in sandy regions in the East of the country. The main purpose of neighbourhoods is to provide mutual aid on various occasions, such as at births, marriages, etc. Besides neighbourhood units, informal groups may also be found in the villages. They are concentrated round two or more influential farm families that take a leading part in the social life of the village.

Broadly speaking, the Dutch village community may be divided into three classes - the lower, the middle and the upper class. The agricultural labourers constitute the lower class and the farmers with small size land holdings or renters form the middle class. The upper class consists of the persons with large land holdings and with professions based on college education. However, no definite class can be identified in case of occupations, such as clerks, civil servants, teachers and positions in business.

The division of the Dutch community into various classes can further be demonstrated by the gap that traditionally existed between the free holders with considerable land and the farmers with small rented land. The former are referred to as "rich" or "fat" and the latter as "small" or rent farmers. Even in churches, village meetings, social festivals etc. it is stated that the rich want to sit only with the rich and the renters maintain their separate solidarity.

From the point of view of extension personnel, class division may be one of the severe factors impeding the dissemination of agricultural information, as to reach their the maximum effectiveness they might have to identify themselves in one of these classes. But as most of the Dutch farmers and growers are members of farmers associations, such as K. N. L. C. (Royal Dutch Agriculture Committee), N. C. B. T. B. (Netherlands Christian Farmers and Growers Union), K. N. B. T. B. (Netherlands Catholic Farmers and Growers Union), the approach to their members is made through their respective associations. Moreover, among the methods of agricultural extension the use of mass media (news, letters, publications, circulars, lectures, etc.) is most prevalent. As a result the extension worker has little personal contact with the individual farmers. Besides, the extension worker is either an agricultural school or college trained person and the education being one of the attributes of the members of the upper class, he finds no resistance in his acceptance by any of the classes. It is interesting to note that in the Netherlands the agricultural assistant or the extension worker personally visits or contacts mostly those farmers through whom he can reach most of the farmers in the community.

From the above it can be concluded that by working through the farmers' associations, mass media, keeping inview the visiting relations of the farmers, the extension worker gives the feeling to the farmers that he belongs to the same group or class to which they belong.

Another important factor in the social structure of the village community in the Netherlands is the "family unit". The strength of the family, especially in the village, is well-known because of its cohesive power. The entire blood kin on the mother's and the father's side forms an extended net work. If one of the members of the family gets into trouble, the other as a rule will do their utmost and will, if necessary, make great financial sacrifices to help him. The relatives play a great part in the granting of loans in rural areas. An ill person or one who needs help usually prefers a brother or nephew, even far from his village, to a non-relative¹⁾.

However, the family feeling is least strongly developed among the farm labourers. This is, undoubtedly to some extent, due to the fact that this group lacks the historical economic and social background for the development of a sense of family pride²⁾.

The authority of the parents, especially of the father is well recognised in the agricultural families. Where grandparents still form part of the family the grandmother may hold the purse-strings and tell the mother just when and what to feed the baby. The grandfather still tells his sons and sons-in-law what to do on the land and how to manage the crops. Respect and deference is shown to them even when children and grandchildren know better after attending the agricultural schools. Their stay with the family may create obstacles in the diffusion of improved agricultural practices. This fact can be well explained by the hypothesis that the age is negatively associated with the adoption of improved farm practices. On account of age and experience comes authority. But the authoritarianism is negatively related with the acceptance of farm practices in at least two ways³⁾.

1. The more authoritarian the role of the farm operator the slower the acceptance of innovations in farming.

2. The greater the dependence upon the authority (father etc.) of the operator, the slower the acceptance of farm practices not approved by the authority.

From the point of view of the agricultural advisory services, it is easier to motivate the young farmers as compared to the older ones. However, on the otherhand, the younger the extension worker, the less weight his advice will carry. It is not only necessary for an extension worker to be well equipped with agricultural knowledge, but he should also possess the authority of age and experience in his field. According to Van Den Ban⁴⁾ the extension service in the Netherlands proved not only more successful with young farmers

1) *The Deeply Rooted*, 1955, p. 101.

2) *Rural Life and Rural Welfare in the Netherlands*, 1957, p. 103.

3) *Sociological Research of the Diffusion and Adoption of New Farm practices*. University of Kentucky, 1952, p. 5.

4) *Het Landbouwkundig tijdschrift*, No. 6, June, 1953, p. 326.

families of which one of the members had followed a formal vocational training in agriculture, but also with the farmers on large farms and the members of farmers organisations.

Ordinarily there exists good team work between wife and husband in a rural family. The woman occupies a position of considerable importance and influence in the family. In fact, she holds the purse-strings. Most women help a great deal with work in the barns, such as feeding the pigs, milking the cows etc. Where-as the farmers' role in agricultural work consists of buying and selling livestock, purchasing fertilizers and seeds etc. He controls the crops to be planted, methods to be followed etc. The importance of the division of work between wife and husband is of great importance to the extension workers for the introduction of new improved ideas, practices and implements as shown below:

The introduction of the wheel-barrow for the feeding of pigs was carried out in a particular district. It had full co-operation of the members of the farmers organisation. However, its introduction had to face a great resistance from the farm women. Though the farmers were consulted and convinced of the utility of the wheel barrow, yet most of them remain unused. The setback in the introduction of the wheel barrow could be explained in the way that the feeding of pigs is the work of farm women. So instead of their husbands they should have been consulted by the extension workers.

Another factor playing a significant role in the social life of the Dutch farmers is the agricultural associations. These associations can be classified as the Roman Catholic, the Orthodox Protestants and the non-denominational associations. However, these agricultural associations have nationally federated themselves in the Royal Netherlands Agricultural Committee, the Netherlands Christian Farmers' and Growers' Union and the Netherlands Roman Catholic Farmers' and Growers' Union. These associations have played a very significant role in the field of agriculture, especially in promoting agricultural advisory work and agricultural education. They also helped in the promotion of home economic eduction and stimulated the development of co-operatives, testing of seeds, regulation of labour conditions etc. In addition, there are three country women's associations - the Netherlands Union of Country Women, the Royal Catholic Farmers' Wives Union and the Union of Christian Farmers' Wives, Farmers' Daughters and Country Women. They do not only stimulate the technical aspects related to the work of farmers' wives and other country women, but also help in the advancement of the general social and cultural education of their members. The membership of these associations is quite high and there is every reason to expect that their significance to the individual and the community in rural areas will become greater in the future.

In addition to the above mentioned factors, village leaders also occupy a very important position in the social life of the rural community. Efforts initiated by the extension personnel always need the blessings and support of such leaders. In fact, these are the persons whose co-operation is vital to the success of the extension service. Speaking, ideally, to lead successfully, a rural

leader should be the embodiment of the village culture. Because of his wealth and integrity, he may have prestige, but he remains modest and retiring and acts only in accordance to the expressed wishes of the group.

In general there is the recognition of persons with a higher status as village leaders. Such persons may be big business men, doctors, teachers, etc. These persons, are always connected in one way or another with the village community life. Progressive farmers also play the role of village leaders and may possess large influence on the behaviour of other farmers. The latter always look at progressive farmers because they think these farmers will be more able to give the information they need. Besides, political persons too are taken as village leaders. However, the most important role in the life of rural community is played by the progressive farmers. As stated earlier there are various local organisations having most of the farmers and growers as members. The executive body of such organisations consists of progressive farmers and "notables"¹⁾ of the area concerned. If there is anything to be disseminated or conveyed to the members of these organisations, it has to be supported and approved of by the members of the executive body or so to say by the leaders. After obtaining their support and blessing there are greater chances of its adoption by the ordinary members. Actually, such leaders are the first to use approved practices in their community areas. Moreover, these progressive farmers have direct contact with the extension personnel. They tend to have a higher level of education and read more bulletins, magazines and newspapers than the average person does. They participate more than the majority in formal organisations and have wider contacts.

In reality these local leaders are important links in the chain of communication. They are identified by the majority of farm people as neighbours and friends and they are not thought of as leaders by election but their leadership is established by actions which have won the respect of their associates.

Another factor exercising significant influence on the social life of the Dutch farmers, is religion. Nowhere in Western Europe such an influence is exercised by the Catholic church on the every day activities of its members as is the case in the Netherlands.²⁾ The local and the provincial or regional farmers' associations, described earlier, are based on religion and draw their members from various religious groups. The churches concern themselves not only with the direct religious education in the form of confirmation classes, etc., but also with the organising of adults and adolescents in church societies. In their meetings these societies discuss not only religious matters but also social problems of a general nature. The orthodox Dutch Reformed and Reformed Young mens' and girls associations flourish in various parts of the country and they have an important and favourable effect on the general social education of these younger people. The Roman Catholic church too devotes a

1) Professors, teachers, doctors, etc.

2) E. Abma, Boeren standsorganisatie (Participation of farmers in Farmers' Unions) Bulletin No. 2, 1955, p. 27.

great deal of attention to the non-scholastic education of the younger people.

In my opinion the Catholic land utilisers seem to be more organised and the chances of success of the extension service are brighter with them, provided the approach to such persons is made by workers belonging to the same religion.

"If a group is to be used as a medium of change, those people who are to be changed and those who are to exert influence must have a strong sense of belonging to the same group".¹⁾

Similarly, if the farmers are organised in an institution on basis of religion, the most appropriate way to motivate them will be by the extension workers belonging to the same religion. This will create at least a platform where the extension workers and the farmers can come close to each other on account of strong sense of belonging to the common religion.

In addition to the factors mentioned above it will be worthwhile to throw some light on social provisions which on the whole enable the rural population to get rapidly in touch with the outside world, not only for economic purposes, but also for the development of social contacts in general. The impact and the role played by factors, such as means of transport and communication, electricity, water, gas, housing, nutrition, etc. in the development of social life in the Dutch rural community will be given below.

It may also be stressed here that the modern developments as to traffic and transport in the Netherlands have on the whole enabled the rural population to get rapidly in touch with the outside world. There is no more isolation of the rural areas. Not only the villages, even every agricultural farm has been connected by paved or unpaved roads. The Netherlands now has an adequate network of traffic routes, so that even the smallest villages are within easy reach. This means that agricultural products can be transported without any major difficulty and the farmers can keep in touch with the outside world. The waterways too play a significant role in transport, though the character of transport by water has undergone notable changes as a result of the development of road traffic.

Specially in rural areas bicycles form a very important means of conveyance. Practically everyone who has occasion to use a bicycle has one at his disposal. Due to the density of population the distance from the farms to the nearest villages and towns is usually so short that farmers in most cases can come there without much trouble and the agricultural labourers can easily cover the distance from the villages to the farms on bicycles. There also is a rapid increase in the number of autobikes, which are of great importance to the rural areas. Besides, the autobikes are within the financial reach of the farmers and farm labourers. They enable them to cover far greater distances than formerly. Horse driven carts and tractors too are still in use for the transport of products to and from the farm. However, this sort of transport is on the decrease.

1) Achieving change in people, some applications of group dynamics theory. Human Relations, 1951, p. 388.

As far as the means of communication are concerned, the Netherlands has a large number of national provincial and local newspapers. In addition to local and world news, they usually contain price quotations for agricultural products. They also often carry reports on the agricultural information service. Along with the newspapers, most farmers read one or more agricultural journals. In the Netherlands the communication of the rural population with the outside world has been greatly promoted by the wireless. In 1953 it was only 10% of the whole population that did not have a radio set. In 1953, there were 103 per 1000 inhabitants having a telephone¹⁾. In rural areas, however, the number of telephones is much smaller than it is in the towns or cities. Owing to the rapidly growing means of communication, in general there are more opportunities for the rural population to be in touch with the outside world.

Concerning other social provisions, such as electricity, water and gas, it may be stated that in 1954 only 26% of the houses were not connected with electric supply and out of 218, 153 houses of farmers enumerated in 1947, 48,002 had water and 16,455 gas supply²⁾.

Since 1947 there has been a considerable increase in the number of houses connected with water and gas supply. However, in the rural areas as a whole the situation is not so bright because of the scattered location of the houses of farmers and growers.

As regards the housing problem in the Netherlands, it is the sole responsibility of the municipalities to provide reasonably good houses. As a result of the Housing Act of 1901 the municipalities have to enforce by laws which set the standard to be observed in building houses³⁾. The standard of the houses is reasonably high and practically speaking since the enforcement of the Housing Act, no houses have been built which do not meet reasonable requirements. Besides the Housing Act authorises the municipalities condemn houses that are no longer up to a certain standard. In their task with respect to housing, the municipalities are assisted by the Central Direction of Housing of the Ministry of Housing and Building Trade which in each province is represented by a Chief Engineer Director.

Last but not least, education too forms a very significant item of social provision. In fact in the Netherlands as in any other country, there are three grades of education - Elementary, Secondary and Higher Education. It would be hard, however, to deal with all the three grades of education in the limited space of the chapter. Consequently, it will be confined to the Elementary education.

In the Netherlands there is an eight years compulsory school attendance i. e. from the age of 6 years to 14. Regular attendance at school is strictly enforced. According to the law of 7th July 1900, article 30, the police acts as attendance officer. The parents can be prosecuted if the children remain absent from the school without a valid reason. In each town there is a committee for the pre-

1) Rural Life and Rural Welfare in the Netherlands, 1957, p. 127.

2) Ibid, p. 130.

3) Ibid, p. 135.

vention of truancy to which the heads of the schools concerned report on individual cases. Besides, the short distances at which most children live from the schools and the temperate climate rarely prevent them from attending schools.

At present no tuition fee is charged to attend the elementary schools. It may also be stated that because of the free elementary education, the financial position of the parents has never interfered with the school attendance of their children. Children who are not in a position to attend school due to lack of shoes, clothes etc. may be provided with these necessities by the school authorities. However, the parents are responsible for the travelling expenses of their children to the school if they live beyond the "school limit" 1).

As regards the equivalent and the supply of educational apparatus, the schools are on an adequate level and also the educational buildings are of a reasonable standard. Concerning the staff of the elementary schools, practically all teachers have received their training at teachers' colleges, after completion of three years course at a Secondary School or Gymnasium. This reflects that the teachers are well equipped in their field of profession.

Before concluding the survey of the social provision, it may further be stated that in addition to the above mentioned factors, there are several others, such as recreation facilities, nutrition, health, social security etc. which are equally indispensable to the social structure of the Dutch Village Community. But they have not been discussed here since we limited the discussion to the factors most directly related to the agricultural production. This does not imply, however, that their importance for the village has been underestimated.

India.

To understand the social structure of an Indian village community, it is vital to examine the Indian caste system which stratifies the community and makes it a very peculiar type of social grouping. The system of caste groupings divides the whole society. Traditionally five well known major groups are recognised i.e. the Brahmins (priests and men of learning), the Kshtriyas (rulers and worriers), the Viashyas (traders and businessmen), the Sudras (workers) and the Harijans (untouchables). This classification of castes is accepted by Hindus all over India. In practice, there are, however, a great number of castes forming together a system in which they occupy a position of social superiority or inferiority with respect to each other. The occupations to be followed by the castes are defined by tradition. In brief a caste can be defined as an endogamous social unit, membership of which is determined by birth; it is often associated with a particular occupation and with restrictions on the acceptance of food and water from other caste groups. Castes tend to be ranked, with the Brahmins being traditionally assigned the highest status and the untouchable castes like the Bhangi (sweeper) the lowest.

1) "School Limit" stands for the area within 4 km. from the nearest school.

Caste differences even determine the differences in modes of domestic and social life, types of houses and cultural patterns of the people, which are found in rural areas. Even land ownership exists frequently on caste lines. However, within each group there are sub-castes which seem to have been formed from intermixture of major castes. It is also believed that sub-castes came into existence as a consequence of neglecting the duties of each caste. One of the interesting things of sub-castes is that they are in operation independently, but in a wider sense, nevertheless, related to the ideal scheme of the caste system.

Although the casts system has a great impact on the economics of the family, the educational and the political life of the village community, only the problems, posed to the agriculture extension workers by the division of the Indian society into castes, will be discussed.

An extension worker is always more or less in a state of confusion as with what particular caste he should start his work in the village and whose norms and behaviour he should adopt. His work with the upperclass and castes wins him a certain measure of support form this group. But on the otherhand he shall never be able to gain the confidence of the underprivileged groups to promote his programme. Moreover, it has also been noticed that the caste of an extension worker determines to some extent his acceptance by the villagers. If he belongs to a lower caste, his visits to families of higher castes, are likely to be criticised by the latter. He may, at times, be not allowed to enter the house of villagers belonging to a higher caste. If he does so, the members of the higher castes blame the Government for pollution of their social life. However, if the extension worker belongs to a higher caste his chances of acceptance by the lower and the higher castes are a bit brighter, as the lower caste accepts him as a member of the superior caste and the higher caste takes him as their own individual. Still his behaviour is closely watched and the deviations from the traditional norms of higher caste will evoke resentment in the society.

According to the author's experience the extension workers i. e. the Village Level Workers first identify themselves with the persons of their own castes and then with the upper class or caste groups. This may be for certain personal reasons and also to get a good start in their work as the persons of the upper caste and class groups are richer and easily adopt improved implements and techniques as compared to those of the lower caste and class groups. Under such conditions the lower castes look on the workers with suspicion and are found saying that the Government is trying to make rich groups richer and neglecting the lower ones. An example of the impact of the extension workers' identification to the social system of the villagers is given by Prof. Dube¹⁾. He states, "In her enthusiasm for adoption of progressive ideas the Assistant Project Officer for women welfare (A higher caste girl with university education) accepted food from untouchables. This act won her the sympathy and the support of the unfouchables, but also

1) S.C. Dube, India's changing villages, 1958, p. 136.

created a first class sensation in the community. The more traditional minded person started asking whether the Government was to destroy the social system of Hindus by letting its employees set such examples."

Caste also plays a big role in determining the nature and the personnel of the leadership of the rural society. Cast leaders are generally leaders also of the social, economical, political and idiological life of the rural society. At times by virtue of wealth, position and contact with the Government officers the so called village leaders enjoy positions of great influence. Their role as decision-makers in day to day life is vital. Persons with recognised abilities in certain fields, such as good agriculturists, individual with experience in law courts, those with knowledge of shrubs and herbs, also function as opinion leaders. Such persons are always given a place of honour in village functions and ceremonies. Village disputes are generally referred to them and their decisions are seldom disregarded. Many recognised leaders are village politicians with some education and considerable outside contact. They function as links between the world of the villagers and the outside world of the cities. Many of them devote a considerable part of their time to the social activities. Persons like Headmasters of schools living in the village, can also exercise considerable influence because of their position in the schools.

It seems vital for the success of any development plan that village leaders be first convinced of its benefits. Villagers always look towards their leaders for their reaction, their opinion, and guidance. They will not easily adopt or accept any deviation from the traditionally followed practices unless their leaders adopt them first or ask them to follow. One of the best ways for an extension worker to increase his effectiveness is to find out the village leaders and then to motivate them. If he could do so half of his job is done. Each extension worker multiplies his efforts and effectiveness by as many times as the leaders he assists and develops to have followers. It is safe to conclude that of all the methods available to improve village conditions, the most important are selection, training, encouragement and effective use of the local village leaders. These are the people who guide, mold, change and direct village thinking.

Village leaders belonging to higher castes, at times, undermine villagers' participation, especially in voluntary contribution of labour for road construction. Here such village leaders assume a supervisory role and leave the actual land work of digging etc. to the persons of the lower caste groups. It is usual for such caste leaders to put pressure on the lower caste groups to let them undertake land work in communal endeavours, such as repairs of channels, bunds, wells, roads, school buildings etc.

Village leaders also play a great role in the formulation and functioning of village Panchayat. A Panchayat (literally a council of five) is a group of recognised leaders who meet to pass on judicial cases or problems, or who convene to plan some undertaking or course of procedure on a matter requiring united action. It seems

to be a basic assumption of the Planning Commission that the Panchayats are democratic, representative bodies which will forward the object of the First and Second Five Year Plans. However, in my opinion this optimistic faith seems displaced. In most of the Indian villages the Panchayats are dominated by land owning castes, whose members are not likely to abandon their own land interests. It is also usual that year after year the same persons are elected Panchayat members who try to exploit their powers for personal interests. For example the village Panchayat plays a predominant part in the Land Consolidation programme of the village. If the Panchayat members are partial they may influence the distribution of land in such a way that it leads to resentment of some of the villagers. Moreover, at times the number of Panchayat members is based on the number of various castes present in the villages. Under such conditions, a member belonging to a particular caste is obliged to favour the members of his own caste.

Keeping in view the importance of the Panchayat in the execution of the development programmes and the function it performs, such as decision making in minor disputes which do not ordinarily go to law courts, fixation and collection of contribution, which should be made by different families for any communal undertaking etc. it is necessary for its members to be elected on the basis of personal qualities and capacities and not on a caste or class basis.

In the social structure of the Indian Village Community, the family occupies by far the most important place. The family plays a decessive role in the material and cultural life of rural persons and in moulding the psychological characteristic of the rural individual as well as the rural people collectively¹⁾.

The patrilineal and patrilocal joint family is the normal type of family unit found in rural parts of the country. Joint family often consists of parents, and their married sons and their wives and children or brothers and their wives and children. However, at present it is common for sons to separate from the parents within a few years of their marriage. Thereby they start with an elementary family that grows larger as children are added to it. When sons grow up, get married, and continue to live with parents in their parental home, the unit can once again be called a joint family.

The study carried out by Prof. Dube in the Osmania University, Social Service Extension Project at Hyderabad revealed that in joint families only 22% of the married sons were found to be living jointly with their parents after five years of their marriage. He further stated that for a year or so after his marriage a son continues to live with his parents. His wife also lives with him. Domestic quarrels and discussions develop in this period and compel him to think of separation.

From the agricultural extension point of view, the joint family has got a great impact on the acceptance of agricultural extension workers and improved agricultural practices.

The head of a rural joint family excercises almost absolute power

1) M. N. Sirinivas and others: Indian Village, 1955, p. 11.

over its members. It is he who distributes the work of the household among the family members with the line of age and sex differences; arranges marriages of sons and daughters, administers the joint family property according to his wisdom and trains the youngsters for future agricultural work. All initiative and final authority are vested in him. In fact, the head of the family has the rights and authority to be the ruler, the priest, the teacher, the educator, and the manager of the family¹⁾. Thus, the joint family, through its head, subordinates its individual members to itself. The latter are completely submerged in the family; hence they hardly develop any individuality and personality.

It is common to see a joint family in which one or two members are agriculturally trained. But due to the absolute power of the father or head of the family such persons can not make full use of their training in the field of agriculture. When the younger members of the joint family want to bring about some change in the traditionally followed agricultural practices, the head of the family is generally noticed saying, "I know better how to cultivate the land. My father has been following these very practices; I am following the same for several decades. But now you person after getting some agricultural education dictate me to leave them. It is a matter of experience of several generations that all in the village follow these practices. Well, I want to make it clear that so long as I am the head of the family the same practices will be followed".

I have come across several cases where a member of a joint family has been working as Village Level Worker or teacher in a Basic School. He has been advocating the use of improved implements, improved agricultural practices, etc. to the farmers of distant villages. But on his farm the same traditional practices are being followed. This is because of his father's absolute power and authority dominating the whole agricultural affair.

Another essential characteristic of rural joint family is that it is generally based on the peasant household, i. e. all its members are engaged in agricultural occupation. The work is distributed among them mainly on the basis of sex and age distinction. Since the members of a rural family form a single economic unit and constantly co-operate with each other in agricultural operations, the latter can be carried out without much difficulty. For an example the carrying of farm refuse and cow dung to compost pits is the work of the female members of a rural family. As a part of the agricultural and sanitation development programmes, the village level workers had compost pits dug, out side the settlements in a number of villages. The village Panchayat also stressed the making and the use of the pits. However, most of the pits remained unfilled and even unused. The distribution of work among the family members explains the fact. Traditionally, it is the work of women to clean the house and the cattleshed and deposit refuse and cow dung in one corner of the court-yard or in an open space near the house. Even the women of the highest castes do this type of work at their homes, but they are not expected to be seen carrying loads from

1) A.R. Desi: Rural Sociology in India, 1959, p. 35.

their houses all the way to the compost pits in the outskirt of the village. As very few families could engage servants for this purpose, half of the compost pits remain unfilled.

In addition to the above mentioned factors constituting the social structure of the Indian rural Community, informal groups of the villagers are also very important from the point of agricultural extention. Such groups are centred around influential farm families, leading to the division of the whole village community into various factions. These factions have their own objectives and motives. Their controversies may become apparent whenever there is an attempt to take up a common programme, such as the construction of water conservation bunds, wells, roads, etc. These groups most of the time find no basis for working shoulder to shoulder with other groups.

In coming to the social provisions, which are necessary not only to the development of the rural population as a whole, but also to maintain contact with the outside world, communication may be taken as most important. Development of transport facilities plays a significant role in bringing the rural population rapidly in touch with the outside world. However, in India a vast majority of the villages have no roads at all. The isolation of the rural areas still exists. The agricultural products may not be transported without great difficulties. Communication, of course, is maintained through narrow, zig-zag, and sandy paths. These paths are usable only during fair weather, but useless during monsoon for want of bridges. Communication may be held up for a period varying at times from a few hours to some days. However, with the commencement of the Community Development Programme some villages have been joined by "pucca" or metalled roads to main roads. These roads have been constructed by voluntary ground-work by the villagers and the metalling was done by the state Governments. However, the provision of metalled roads and paved streets in all the villages in India, is still a far cry and it may take several decades to realise it practically.

As regards the means of transport in rural areas, the bullock-carts, as private means of conveyance, are highly important. Practically everybody in a village has a bullock-cart which is not only used for carrying the agricultural produce from the villages to the market, but also for visiting friends in the distant villages. It is really spectacular to see the bullock-carts convoy during marriages. However, those who can afford to go by foot, may not use bullock-carts. Some rich villagers use horses as means of conveyance. So far there is not enough use of bicycles. Roughly speaking only 10% of the villagers may be using bicycles to cover the distance from the village to the markets. The reasons for this low percentage may be the sandy roads which are unsuitable for cycling and the poor financial position of the farmers. Villagers seldom have a motor-vehicle as private means of conveyance.

As far as the circulation of news papers, magazines, etc. is concerned, it is hard to find a villager who may be receiving or reading them regularly. The only source of information to the vil-

lagers is the village grocer (Bania) who usually gives them the price quotations for agrarian products. The villagers mostly spend their spare time in "Baithak" or mens' quarter, where they meet to chat and smoke the hookah. If somebody has been to the market or has heard something new, he may communicate here with others and convey the information. Recently under the Community Development Programme a radio set has been provided to each village, especially to keep them aware of the market prices of agrarian products. However, it is hard to find a person who can keep the radio in working condition. Most of them go out of order within few months of their installation.

There is no adequate provision of electricity and pure water in the Indian villages. Only the villages in the vicinity of the cities may have the provision of electricity for domestic use. Use of Kerosene oil is common for light purposes. However, at times mustard oil is also used for the same. It is expected that by the end of the Third Five Year Plan all the villages will be provided with electricity. How far this goal can be achieved is yet to be seen. The main source of water supply in an Indian village is a well, which may be "Kacha" or "Pucca". The water is drawn by means of buckets pulled over pulleys that are fitted on the wells. However, no cover is provided on the well, which leads to constant pollution of the water. No arrangement is made to clean the clothes and to bathe at the well. The villagers are normally noticed taking baths at the well the water of which gets polluted by their dirty wash. The cattle is brought to the well for water, which at times results into serious accidents. However, the wells that have been constructed under the Community Development Programme are provided with concrete walls, places for washing and bathing, suitable cover etc. But the number of such wells is too small to bring a significant improvement in source of water supply.

Another source of water supply is the village pond. The village women are often noticed washing their clothes in the pond water. In reality, the pond is a source of infection rather than an asset to a village, as it harbours mosquitoes, etc. during the rainy season. Very rarely hand pumps for lifting water are noticed in a village, though their use is being popularised now-a-days.

As regards the houses in an Indian village, they may be divided according to their quality into three categories. First come those which are built of brick masonry. They are owned by rich villagers, but such houses constitute at the most 10% of the total houses in a village. Next come houses which are of mud-masonry and have thatched or tiled roofs. The third class of houses are those of the labourers and the village menials. However, all the houses are constructed in a haphazard way and without any proper planning. In most of the houses walls, which do not permit the construction of windows into them, are common. The villagers are at liberty to construct their houses in any way they prefer. No sanction and permission is needed from any authority to construct the houses. However, the village Panchayat may intervene in the construction of a house if it creates an obstacle in the common passage or interferes

with the already existing houses. In general, no provision exists, in the houses for the drainage of water and the latrine. Often cattle may be found sharing the same room with human beings, which may be due to lack of space and a peculiar belief that cattle needs attention of the house wife at night. Usually the kitchens are in the living rooms and in the absence of chimneys all the smoke remains in the living apartments for a considerable time.

According to their use the houses in a village may be distinguished as follows:

1. "Baithak" - a house or a room used by men only, for social purposes and for sleeping.
2. "Baithak" with cattle enclosure.
3. "Ghar" a house where the women of a family live.
4. "Ghar" and cattle enclosure.
5. Cattle shed.
6. Combination of "Baithak", "Ghar" and cattle enclosure.

With a view to the modern standards of living, sanitation and hygiene, the majority of the houses are certainly unfit for human inhabitation. Usually they are huddled together with very narrow lanes in between. The manure pits and refuge dumps are very near the living houses and in many cases filthy water accumulation is a source of malaria and other diseases.

Coming to the education, the factor that is equally important from the point of social structure of the rural community, is mainly the concern of local bodies - District Boards - to provide the rural population with a reasonable standard of education. The local bodies run their own schools, appoint their own teachers and inspectors give grants to private bodies and prescribe their courses and textbooks. Education is not, however, uniformly distributed in all the Indian villages. It is even common to find villages which do not have any primary school. Sometimes there is one primary school for a group of villages. At the same time there has been no provision, in most of the places to enforce free and compulsory education for all children upto a specific age. After the Independence in 1947, the present Government declared under Article 45 of the Indian constitution that a state shall endeavour to provide, within the period of 10 years from the commencement of the constitution, for free and compulsory education for all children until they complete the age of 14 years. The period of 10 years has passed since the enforcement of the Indian Constitution, but the introduction of education still remains a far cry. The reasons of failure to provide compulsory education are manifold.

The caste system, though abolished, is still rigid enough to be a serious obstacle in the way of mass education. Many people of higher castes, especially in rural areas, do not like their children to be in the same school with those of lower castes. There is sharp variation in school attendance with regard to sex and age, while 70% of the boys of schoolage go to school, only 23% of the girls do so¹⁾. In case of girls education is generally limited to the years between

1) Oscar Lewis: Village Life in Northern India, 1958, p. 43.

five and fourteen. Besides, education is also limited to the Brahmin, the Vaishyas, and the Kshtryas castes in most of the villages. Children of lower castes, such as Harijans are rarely seen attending schools. According to Prof. Lewis, out of 14 families of sweepers and washermen, there have been no children in the primary school¹⁾. Moreover, it is also stated that the untouchables are discriminated against to some extent at the schools and not treated so well as the higher clan children. When it comes to higher education the higher castes are again in lead. However, the State Governments provide subsidy to the children of the lower castes during their primary and higher education in the form of fee, clothes, shoes, exemption from tuition fees etc. Still, such subsidies are not adequate enough to induce the untouchables to send their children to schools.

As regards the equipment and the supply of educational apparatus, the schools are below the normal level. It is common to see children sitting on floor due to lack of desks. Generally the school buildings are not big enough to accommodate all the children. At times the children are noticed sitting under the trees even during the summer season. During the rainy season most of the village schools are closed, apparently due to lack of proper shelter and heavy rain fall.

However, concerning the staff of the primary schools, practically all the teachers are trained at teachers' training schools or colleges. They seem to have obtained enough training in their profession. But due to the lack of educational equipment, proper building, inadequate shelter, the staff may not be able to make full use of the training received at teachers' training schools. To sum up the factors bearing on the problems of compulsory primary education in India, one can only say that the situation is very unsatisfactory and there are at present many factors hampering improvement.

The Netherlands and India.

In the field of social structure, we find remarkable differences between the Dutch and the Indian rural community. Indeed they seem like separate worlds. Starting from the type of villages, in the Netherlands most of the villages belong to the line type and strip division. The villages are with its relatively well ordered grid pattern of streets at right angles. The market places and churches are located centrally. Whereas the Indian village may be termed as being of the strip division type in which farm houses lay at some distance from the land belonging to them. In an Indian village, unlike a Dutch one, there is no orderly arrangement of streets, many of which are narrow dead-end alleys, there is no village centre as a rule. Another thing in the Indian village which is in contrast with the Dutch one is the much greater separation of

1) Oscar Lewis: Village Life in Northern India, 1958, p. 43.

sexes. In the former the preferred arrangement for family living is to have two residences, one for women and children, another for men and cattle.

In an Indian village the caste system organises life in terms of hierarchical principles and shows up the status differences between groups. The higher castes are by tradition agriculturists and own the major part of the land of the village. The lower castes tend to live on the outskirts of the village. The caste system divides the village and weakens the sense of village solidarity. There are separate wells for the untouchables, dining and smoking between the higher and lower castes are still taboo; low-caste persons will not sit together on the same cot with those of the higher ones, etc. Where-as in a Dutch village there is no caste system and society is much more democratically organised. The life of the village is generally not dominated by the group. Each Dutch family whether rich or poor, owns its house and house site, has a recognised status and can proudly say, "this is my village". However, in the Netherlands there is division of rural society into various classes and at times the rich persons even want to sit with the rich in the churches. Still the stratification of the Dutch society into classes is not so rigid and severe as that of the Indian society into various castes.

In an Indian village prevalence of joint family is a rule, and the extended family is strong and forms a basic unit of individual identification. The head of the joint family exercises almost absolute power over its members and all initiative and final authority is vested in him.

Whereas in the Netherlands, the nuclear family predominates, the extended family is weak and social relations and social solidarity are organised around religious, political and other non-kinship bases. The independence and individualism of the nuclear family are well recognised. However, in the Dutch and Indian agricultural families, there is considerable division of work on sex bases.

In an Indian village there are no agricultural associations that may play a significant role in the field of agriculture, such as in promoting agricultural advisory work, agricultural education etc. Whereas in a Dutch village there are such associations, especially based on religion. In the Netherlands they have played a significant role in the field of agriculture. In addition, there are also country women associations in the Netherlands to assist the farmers' wives in the field of their welfare and education. The leadership in an Indian village is based on castes, wealth, social and political position, contact with the Government officers, etc. However, the leadership is limited to faction leadership and primarily it is of a protective and defensive nature in which each faction defends its interests. The "leader" is essentially a spokesman for a group of families and has little authority to make independent decisions or to exercise power over the group.

In the Dutch village the persons with a higher status, such as doctors, and teachers, progressive farmers etc. are taken as village leaders. Most of the time the progressive farmers act as vil-

lage leaders. Such persons have a higher level of education, read more news papers, bulletins etc. In fact, their leadership is identified by action and not by elections.

Religion plays a significant role in the social life of Dutch farmers. The local and provincial farmers associations are based on religion. The church imparts religious education, but also organises the adults and adolescents in church societies. Whereas in the Indian rural community religion is not of so much importance. There are no associations and societies based on religion.

Coming to the social provisions, such as roads, means of transport, electric and water supply, housing conditions etc. they seem to have been better developed in the Netherlands. Not to speak about villages only, even every agricultural farm has been connected by paved or unpaved roads in the Netherlands. Waterways too form a network of traffic routes in the Dutch villages. Whereas in India the vast majority of the villages have no roads and there exist no such waterways as noticed in the Netherlands.

Bicycles, as a means of transport are rule in the Dutch villages, whereas they are still exceptions in the Indian ones. Farm animals, such as horses and bullocks, as means of transport, have become a thing of the past. But in India they form the major means of transport. Almost every farmer in the Netherlands receives a news-paper every day and possesses a radio, in addition he may have a television set and may receive periodicals and magazines. These means of communication on the whole enable the rural population to get rapidly in touch with the outside world, not only for economic purposes, but also for the development of social contacts in general, whereas in India literacy percentage in rural areas is too low to make use of such means of communication. The economic condition is too low to own a radio, which is a luxury in India, but may be a necessity in the Netherlands.

The standard of housing in the Netherlands is reasonably high and practically speaking, since the enforcement of the Housing Act, no houses have been built which do not meet reasonable requirements. Whereas in India, with the modern standard of living in view, the majority of rural houses are unfit for human inhabitation.

As regards the education, there is eight years compulsory school attendance in the Netherlands and regular attendance at school is strictly enforced. But in India the enforcement of compulsory primary education is yet to be realised. At present there are no longer any fees required in the Dutch elementary school, where as in India it may be an exception.

In conclusion, I believe, the social structure of the Dutch and the Indian rural community demonstrates the wide range of differences that can exist in peasant societies. Similarities do exist, but on the whole the differences are, however, more impressive. These differences are greater in social organisations, material culture, level of technology and education. However, in making a comparison, we must remember that both countries are in different stages of evolution. India obtained political independence only fifteen years ago and has not had an equal chance of development.

CHAPTER IV

THE ORGANISATIONAL SET UP OF THE AGRICULTURAL ADVISORY SERVICES IN THE NETHERLANDS AND INDIA

To understand the effectiveness, merits and demerits of agricultural extension training imparted to workers to carry out the agricultural development programme in the Netherlands and India, one should first analyse the administrative or organisational set up which has been called upon to carry out such a programme in both countries.

The Netherlands

The agricultural advisory work in the Netherlands is carried out by Government Officials working under the auspices of the various departments of the Ministry of Agriculture and Fisheries, namely the departments of Arable and Grassland, Horticulture and Livestock.

At the centre the ministry is headed by the Minister of Agriculture and Fisheries, responsible for agricultural development as a whole. Under him there is a Director General of Agriculture, whose main function is to co-ordinate the whole field of advisory work, agricultural research in the fields of veterinary, forestry, plant protection etc. and residential teaching. There are three Directors of Arable and Grassland farming, Livestock, and Horticulture respectively, who are responsible for advisory work and research in their respective fields. Besides, there is the Superintendent General of the Agricultural Advisory Services in the Netherlands, who is directly under the Director General of Agriculture and whose function is to co-ordinate the advisory work of arable and grassland farming, livestock and horticulture.

At the provincial level, there is a Provincial Board, which, in general, consists of the following officers:

1. District Arable and Grassland Adviser.
2. District Livestock and Dairy Adviser.
3. District Horticultural Advisor.
4. Provincial Veterinary Inspector.
5. Re-allotment Officer for Land.
6. Director of Secondary Agricultural Schools.
7. District Food Commissioner.
8. District Forest Officer.

However, the number of the members of the Provincial Board mainly depends on the nature and the magnitude of the work in a particular province.

These officers are responsible for development work in their respective field. The District Arable and Grassland Adviser acts as the chairman of the board. He is appointed by the Minister of Agriculture and Fisheries.

The main function of the chairman is to keep close contact with the officers belonging to the various divisions of development in the province.

Next to advisory officers in a province there are Head Assistants and Assistant Specialists in arable and grassland, horticulture, and livestock branches. The main task of the Head Assistant is to make a programme for future activities of Local Assistants and to help them with field problems; to make half-yearly or annual reports; to give recent information to his subordinates, etc. The Assistant Specialists may be for Soils, Farm Machinery, Pilot Areas, Farm Management etc. in case of Arable and Grassland farming and Horticulture. But in case of Livestock Service there are no Assistant Specialists. The work of specialists in the Livestock Service is carried out by those who possess a university degree, whereas this is not the case with those in Arable and Grassland and Horticultural services.

The last link of the official set up of the advisory services in the Netherlands is the Local Assistant. The Local Assistant is in direct contact with the farmers. However, there are separate assistants, who work at the office for advisory work in Arable and Grassland farming, such as for plant diseases, farm buildings, soil testing, etc. In addition to them, there are other assistants who may be called field assistants dealing with arable and grassland farming as a whole. In case of the Horticultural Service, the field assistants are further categorised into assistants for fruit growing vegetable nurseries etc. There are no local assistants in the Livestock and Dairy service.

For example, the official set up of Arable and Grassland, Horticulture and Livestock Services as noticed in the districts of Zwolle, Goes and Arnhem respectively is given on the next page.

Each Local Assistant in the Arable and Grassland Service is responsible for the development of about 450 farms of about 5000 to 6000 hectares. But the number of assistants seems to have been regulated by the size of the land holdings in a particular district. In order to determine the number of Local Assistants in a particular district the following formula has been in use¹⁾.

$$\frac{1/4 (a-b) + b}{a} \times n$$

a = Average size of the farm in the district

b = Average size of the farm in the country

n = Number of assistants required when one is in charge of 5000 hectares.

The use of this formula is indicated below²⁾. In order to deter-

1) Methods of Agricultural Extension, 1953, p. 46.

2) If the average size of a farm in the country is 11 hectares, then the number of assistants required for the given district with average farm size of 14 ha will be

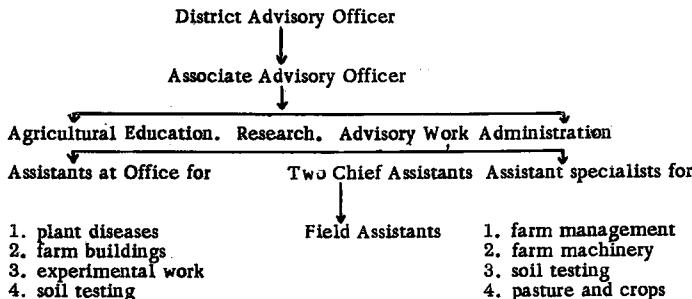
$$\frac{1/4 (14-11) + 11}{14} \times 20 = 17 \text{ Assistants}$$

The average number of assistants in a district is calculated as follows:

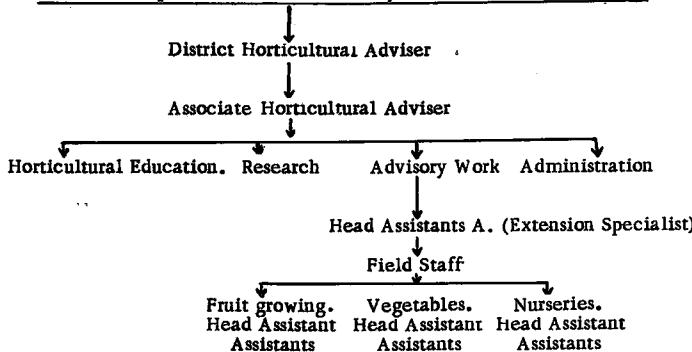
$$N = \frac{\text{Area of Arable land} + 2/3 \text{ area of pastures in a district}}{\text{Total area of arable land} + 2/3 \text{ area of pastures in the country}}$$

$$N = \frac{\text{Total area of arable land} + 2/3 \text{ area of pastures in the country}}{\text{Total number of assistants in the country.}}$$

1. Official set up of Arable and Grassland Advisory Service in a District (Zwolle)



II. Official set up of Horticultural Advisory Service in a District (Goes)



III. Officials of Livestock Advisory Service in a District (Arnhem)

1. Provincial Livestock Dairy Adviser.)
2. Officer for General Work.) Landbouwkundig Ingenieur
3. Officer for Dairy.) (Agricultural Engineer)
4. Officer for Cattle Feeding)
5. 3 to 5 Dairy Assistants

mine the number of Local Assistants, one hectare of arable land is counted for full and one hectare of pasture for 2/3¹⁾.

In case of Local Assistants for horticulture, no such a formula is used; besides, the number of farms under each assistant is only 300 of about 1200 hectares.

In order to establish an effective co-ordination in the advisory or extension work and to obtain the effective participation of farmers and farm labourers, the National Council for Agricultural Advisory

1) Methods of Agricultural Extension, 1953, p. 46.

Work was founded in 1953, on the initiative of the Ministry of Agriculture and Fisheries. The Director General of agriculture is the chairman of the council, whereas the Superintendent of Advisory Services is the secretary of the same.

The members of the National Council for Advisory Work consist of the following:

1. Directors of Arable and Grassland farming, Horticulture and Livestock.
2. Six representatives of Farmers Organisations.
3. Three representatives of Farm Labourers organisations ¹⁾
4. The secretary of the council, who represents both farmers and farm labourers organisations.

The representatives of farmers and farm labourers organisations are proposed by the respective boards of National Farmers and Farm Labourers organisations and appointed by the Minister of Agriculture and Fisheries.

The main functions of the National Council for Agricultural Advisory Work are to obtain the participation of farmers and farm labourers at National Level for the formulation of work of future programme for advisory services and to co-ordinate the farmers and farm labourers organisations in the execution of the advisory programme.

At the provincial level there is the Provincial Council for Agricultural Advisory Work. In all there are twelve such councils in the country. The Chair of the council is occupied by a representative of the farmers organisations. The Chairman of the council is proposed and appointed by members of the council and the Minister of Agriculture and Fisheries respectively.

The Chairman of the Provincial Board, described previously, acts as secretary to the Provincial Council of Agricultural Advisory Work. The members of the provincial Council consists of three advisory officers (one from each service), three to six representatives of farmers' organisations and one to three representatives of farm labourers' organisations. However, should the need arise the secretary of the council can introduce other district advisers of arable and grassland, horticultural and livestock services in the provincial council.

The main function of the Provincial Council for Agricultural Advisory Work is to discuss with and advise the provincial advisory officers the advisory work that has been done and what has to be done in future respectively. It helps in framing the programme that will be liked by both the advisory workers and farmers. Besides, to maintain a close link between the advisory staff and the non-official members of the provincial council, monthly meetings are held in which the agenda of the future programme, prepared by the secretary, is placed and resolutions are passed. If the task of the pro-

1) E. Abma. Participation of farmers in Farmers Unions. 1955, p. 20. According to Abma there are 3 farmers organisations, especially based on religion. These are the Roman Catholic, Protestant and the liberal denomination organisations. The percentage of farmers belonging to these organisations is 48, 16 and 36 respectively. The liberal denominations consist of the Lutherians, the Baptists, the modernists in the reformed church etc., as well as the non-religion farmers.

vincial council is too large to be covered then sub-committees can be appointed. For example, in the province of Arnhem a sub-committee for Farm Economics has been appointed on the advice of the National Council to make contact with Farmers Book-Keeping Societies. The main function of these societies has been only to keep the records of income of the farmers in order to determine the income tax. But this sub-committee along with the help and co-operation of Book Keeping Societies helps the latter in keeping a detailed record of the farm income and expenses; on the basis of such records the necessary changes and improvements could be suggested on individual farms.

The contact between the National Council and the Provincial Council for Advisory Work is maintained both officially and unofficially. Officially in the sense that the monthly meetings of all the provincial councils are attended regularly by an official of the secretariat of the National Council. The contact is also maintained by the reports of monthly or annual meetings, sent to each other for information. Unofficially, in the sense that once in a year the National Council meets with all the chairmen and secretaries of the Provincial Councils and the important points at issue are discussed. In addition to this, representatives of the farmers' and farm labourers' organisations in the National Council and Provincial Council keep contact with each other through the national boards of the organisations.

At the local level there are Local Associations, which are formed by groups of farmers which come together for some common interests. However, such local associations are not found in each and every district. They are non-existent in the districts of Brabant and Limburg. Here their functions are carried out by the farmers' organisations. In places, where both the local associations and the farmers' organisations exist a compromise is reached so as to avoid conflicts arising out of their functioning.

Lastly, there are Pilot Area Committees, such committees are established in the areas where intensive development is needed in the field of agriculture, home economics and social work. The members of the committee are nominated by the Provincial Council in the area concerned. Besides, there are additional workers in such areas to meet the requirements of the intensive development. At present there are 42 Pilot Area Committees in the Netherlands and about 10% of the whole cultivable area is under their jurisdiction. Generally, it takes about seven years for the completion of developmental programmes in pilot areas.

I should like to mention a few words, specially in connection with the Livestock and Dairy Advisory service, which obtains the co-operation and participation of farmers in a different way as compared to the arable and grassland and horticultural services. Though, the dairy adviser seeks the co-operation of the Provincial Council, yet he is more directly related to several other non-official organisations, such as the Netherlands Cattle Herdbook Societies (N.R.S.), Milk Recording Organisation, Provincial Committee for Artificial Insemination etc. In brief the livestock and dairy adviser keeps contact with the inspectors of herdbook societies, he is head

of the Provincial Milk Recording Scheme, a secretary to the Provincial Organisation for Cattle Improvement ¹⁾, an adviser to Union of Local Breeding Organisations ²⁾, a chairman to the Provincial Committee on Artificial Insemination; a secretary to the Provincial Bureau of Cattle Feeding ³⁾ and a director to the Provincial Herd Book for pigs. Contact with the Provincial Herd Book societies for sheep and goats is maintained through one of the assistant advisers, who acts as a secretary to the former.

From the above official and unofficial set up to the advisory services in the Netherlands, it seems that efforts have been made to obtain the participation of farmers and farm labourers in the building and execution of the agricultural advisory programme. Due importance seems to have been given to create initiative and self-help among both farmers and farm labourers.

A special feature of the Dutch agricultural advisory services is the close relationship maintained with research and teaching institutions.

The agricultural advisers and head-assistants do not give merely advice. Next to teachers they sometimes give instruction in the practical branches at special horticultural trade schools and at the training courses for teachers. Each adviser is also officially a director of special tradeschools in his district and the instructions are given by the adviser and the staff. In several districts experimental stations are found e. g. at Lisse an experimental station for bulb growing, at Aalsmeer for floriculture, at Boskoop for aborigiculture and at Naaldwijk for vegetables and fruit growing. These stations are not Government institutions, but they are only subsidised. The horticultural adviser is the official director of the station. The research workers do not merely execute research work in the laboratories, greenhouses or plots; but they also give advice in difficult cases attended by research.

The same is true for arable and grassland and livestock advisory services. Special lectures are given in Secondary Agricultural Schools by the arable and grassland adviser during the winter season. The adviser is also the director of the regional experimental station, where the experiments suited to a particular type of soil and climate are carried out. The advisory officer acts as a co-ordinating agent between the advisory service and agricultural research institutions. Many so called "test farms" are being used by the agricultural advisory service to test the long term effect of certain basic farm enterprises on the physical and financial aspects of the farms as a whole. For example, mechanised farming on small farms, intensive and extensive use of fertilizers on grassland etc. ⁴⁾ Similary, short courses for milking cattle by hand and by machines are organised by the livestock and dairy adviser with the co-operation of farmers.

1) Mainly concerned with bull testing.

2) Generally, there is one such a union in each province.

3) Keeps supervision on local societies for cattle feeding stuff.

4) Survey of Agricultural Advisory Service, 1957, p. 6.

This co-ordination of instruction, extension and research activities seem to have some advantages; it prevents the teacher from becoming bookish, and the practical knowledge of the head assistants can be passed on with great use for instruction to teachers and research officers.

After going through the official and unofficial set up of the advisory service in the Netherlands, I realise the following as its weak points:

1. Some of the arable and grassland assistants pointed out that the area given to an assistant to carry out the advisory work is too large to be covered. At present the area commanded by one assistant is about 450 farms or about 6000 hectares. I found during my discussion with the advisory officers that about 150 farms out of 450 are never visited by an assistant during the period of one year. From the remaining 300 farms, 100 farms are visited about four to five times and 200 farms about one to two times a year. Besides, most of the visits are paid, if they are asked for by the farmers. In brief the assistant does not visit every holding at regular times. If this continues, the range of improvement between the farms visited and the non-visited ones will grow day by day, which may affect the agriculture of the country adversely. Though mass media, such as publications, news-papers, radios etc., are being used to approach the whole farmers' community, yet the visits of assistants should be organised in a systematic way. At present, it seems that more importance is being given to the "pull" method, but if both "pull and push" methods come into operation, greater success can be achieved in the extension field. In addition to the systematic planning of visits of assistants to farms, the number of farms for each assistant should also be reduced.

2. Though the National Council for Advisory Work was established in 1953, yet it seems no definite status has been given to it by the Government. For example the council is not consulted in matters of the annual budget of the advisory services and the Minister of Agriculture seems to give it a negligible importance in this respect. At present mostly budgets for pilot areas are discussed in the council. If it is not given an official status at the earliest, the unofficial members are likely to lose interest in the national Council.

3. It is stated that in order to maintain a very close contact between the National and the Provincial Councils for advisory work, an annual meeting is held with the members of the former and the chairmen and secretaries of the latter. The National Council and most of the Provincial Councils were started in 1953 and 1954 respectively, but only two such annual meetings have been held so far. Regularity in the annual meetings should be maintained, if the contact between the two councils has to be established practically.

4. There is not one man in the advisory services responsible for the province as a whole. There are two or three district advisory officers of each advisory service in every province. All of them are individually responsible to their respective directors of arable and grassland, horticulture and livestock. Though there seems to be a close co-operation among the various advisory officers, as

they hold regular meetings and discuss their programmes with one another, yet this co-operation can be enhanced if an official, responsible in general for all aspects of development in a province, is appointed as head of the advisory officers. He will be able to bring about better and higher co-operation of all the officials at provincial level.

5. The link between the National council and the Provincial council for advisory work is apparently not strong enough to keep close contact with each other.

The Secretary of the National Council is the two-way channel between the two types of council. But the co-ordination of the two councils can be made still stronger, if the chairman of the Provincial Councils are taken as the members of the National Council and the representatives of the farmers' organisations may be replaced by them. One can point out that the representatives of the farmers' organisations represent the whole farmers' community and it may not be necessary to replace them by the chairman of the Provincial Councils. It is true, but we should not forget that these representatives are not directly attached to the Provincial Councils and they may not be aware of the feelings and ideas of the latter. Whereas the chairmen of the Provincial Councils are the representatives of the farmers' organisation and also directly connected with their councils.

One can further say that by taking the chairmen of the Provincial Councils as members of the National Council, the number of members in the latter may be too large to co-operate to formulate a common programme for the whole country. The co-operation of all members to favour a uniform plan being rather difficult, as the function of the National Council is to lay out only the frame work of the programme. However, it may not be impracticable. Besides, it should be left to the Provincial Councils to give priority to the programme items necessary and most suited to their respective provinces.

Consequently in our opinion, if the chairmen of the provincial councils are taken as members of the National Council, the link between the two will be stronger and more agreeable for the co-operation of the councils, for proper functioning of the agricultural advisory services and in securing the farmers' participation.

Organisation of Agricultural Advisory Services in the Netherlands I Official

National Level

1. Director General of Agriculture.
2. Directors of the Divisions of
 - a. Arable and Grassland farming.
 - b. Livestock.
 - c. Horticulture
3. Superintendent General of Agricultural Advisory Services.
4. Subject matter specialists.

Provincial Level

1. Regional Adviser for Arable and Grassland farming.
2. Regional Adviser for Livestock.
3. Regional Adviser for Horticulture.
(Assisted by subject matter specialists)

Area Level

1. Local Advisory Assistant (for arable and grassland farming one for every 450 farms).
2. Local Advisory Assistant for Livestock.
3. Local Advisory Assistant for Horticulture.

II Unofficial

National Level

National Council for Agricultural Advisory Work

Chairman: Director General of Agriculture.

Members:

1. Directors of Arable and Grassland, Horticulture and Livestock.
2. Six representatives of Farmers' Organisations.
3. Three representatives of Farm Labourers' Organisations.

Secretary: Superintendent General of Agricultural Advisory Services.

Provincial Level

Provincial Council for Agricultural Advisory Work

Chairman: Representative of Farmers' and Farm Labourers' Organisations.

Members:

1. Three to six representatives of Farmers' Organisations.
2. One or three representatives of Farm Labourers' Organisations.

Secretary: Adviser for Arable and Grassland Farming.

Area Level

1. Local Associations
2. Pilot Area Committees
(Members nominated by the Provincial council).

India

Before obtaining freedom the States had fairly well organised development departments of agriculture, animal husbandry, co-operation, etc. at district and provincial level. But the activities of these departments were not linked with those of the revenue officers, who touched village life at many points. Besides, all these departments worked independently of one another and followed their own programmes. They had no sense of common objectives. For instance, the Agricultural Officer, Animal Husbandry Officer, Co-operative Officer etc. went around the villages and talked to the villagers about their own programmes. Each of these officers worked in more or less water-tight compartments and there was no concerted effort to improve the village as a whole, changing the outlook of the people and mobilising the local initiative and resources for the bet-

teiment of conditions. Technically better qualified persons most of the time stayed at the head offices and over-seeing the work of their sub-ordinates had been their main task. As a result, the village had insufficient service from inadequately trained persons.

However, with the start of the Community Project Administration in 1952 the co-ordination of the developmental activities of the village has been sought. Under its programme, village life was to be treated as one single whole.

The administrative pattern that exists at present to carry out the development of the village as a whole was evolved from the recommendations of the Planning Commission in Chapter VI of their report. It is so designed as to ensure that there is co-ordinated and unified approach by the heads of the departments in the National Extension Service Blocks and Community Projects.

Under this pattern the Ministry of Community Development and Co-operation with all its paraphernalia is at the centre. It was said that in view of the high priority given to the increased production of food and the special derive which is being launched for this purpose in the development areas, a separate ministry was necessary and hence this ministry was formed in 1957. Before the Ministry came into existence the Community Project Administration was in charge of the development programme. The Ministry is headed by the Minister of Community Development and Co-operation, who is assisted by a number of advisers, such as the advisers for agriculture, animal husbandry, veterinary, small scale industry etc.

At State level there is the Development Commissioner, who is in charge of the development programme of the state concerned. Under the Development Commissioner there is the District Magistrate or Collector at district level. The number of District Magistrates corresponds to the number of districts in the state. The District Magistrate is also actively assisted by a District Planning Officer, as the former has to look after the maintenance of law and order in the district in addition to development work, and he may not find enough time to do justice to his responsibilities.

Each district comprises several blocks, depending upon area and the population. Each block is under the charge of a Block Development Officer who is also assisted by a group of officers, responsible for different aspects of development of the block. Lastly there are on an average 10 Village Level Workers at village level, each responsible for about 10 villages. The staff for a National Extension Service Block is as follows:

Block Development Officer.

Extension Officers for:

- a. Agriculture.
- b. Animal Husbandry.
- c. Co-operation.
- d. Panchayats.

Social Education Organisers (one man and one woman)

Ten Village Level Workers.

In addition to this staff, other personnel are responsible for office work, such as a store-keeper, clerks, messengers etc.

To sum up, the main features of the administrative organisation of the Community Development Programme, as visualised by the Planning Commission, are as follows¹⁾:

1. The basic function of the Development Commissioner of a state is to co-ordinate the activities of the various development departments, such as Agriculture, Animal Husbandry, Veterinary, Co-operation, etc. and to see that they work towards the fulfilment of the overall development plan of the state. It follows from this that the Development Commissioner will not set up an independent Development Department but will regard himself as the head of a team, consisting of the Heads of the different development departments in the state.
2. To achieve co-ordination at the District and Block levels functions similar to those of Development Commissioner will have to be discharged by the District Officer or District Magistrate and Block Development officer respectively.
3. The multi-purpose village level worker should be regarded as the last link in this administrative chain. He is taken as the key-functionary in the development programme. He is the first aid-man in all the fields of village development, such as Agriculture, Animal-Husbandry, Public Health, Co-operatives, etc.

On the recommendation of the National Seminar on Agriculture held in 1957²⁾ there is also a team of specialists - Advisory Personnel at district level, which is administered by the District Agricultural Officer. The team consist of:

- a. Soil Science Assistant.
- b. Horticultural Assistant.
- c. Agriculture Engineering Assistant.
- d. Plant Protection Assistant.
- e. Agronomy Assistant.
- f. Specialists for the principal cash crops of the district, if required.

Along with the official set up, unofficial participation in the organisation of the Community Development Programme has also been arranged.

At State level there is a State Development Committee which consists of the following members:

1. The chief Minister of the State as Chairman.
2. The Minister for Development.
3. The Minister for Agriculture.
4. The Minister for Finance and such other Ministers as the Chief Minister may decide.

The Development Commissioner of the state functions as the Member-secretary of the Committee. The responsibility of the State Development Committee is to outline the broad policies of the development programme and to supervise the execution of the programme in the state. The technical guidance to the Development Commissioner is provided by a board of Advisers which consists of Heads of various development departments of the state (Appendix E).

1) National Extension Service and Community Development Programme, Jan. 1956, p. 3.
2) Kurukshetra, vol. 6; No. 2, 1957, p. 220.

At district level, the functions of the Extension Officer are entrusted to the District Magistrate or Collector. There is a District Development Committee, headed by the collector as chairman. The members of the District Development Committee consist of District Heads of Development departments, the chairman and vice-chairman of District Boards¹⁾. The District Planning officer acts as a Member-Secretary of the board. The main function of the District Development Committee is fixation of priorities and policies for the district.

At block level there is a Block Advisory Committee, which is headed by the District Planning Officer or another corresponding official as the Chairman and the Block Development Officer of the block concerned acts as the Secretary. The size of these Block Advisory Committees vary greatly from one state to another. In Kerala the average size of the committee is made up by 18 members²⁾. In U.P. it is 150 - 160, in Assam it is 50, in Madras it is 24, in Bihar 29 and in Bombay 22. The variation in numbers is due primarily to the variation in the quota of unofficial members but also to some extent to the variation in the representation of the different departments. The members of the Block Advisory Committee consist of the M. L. As.³⁾, the M. Ps.⁴⁾ of the area concerned, representatives of village institutions such as Co-operatives, Village Panchayats, etc., Headmasters of High schools and other individual members. The objectives of the Block Advisory Committee are as follows:

1. The Committee is expected to advise in the planning and execution of the Community Development programme.
2. It is expected to enlist popular support and participation of the people of the area concerned.

However, the committee is a purely advisory body having no executive functions. Its decisions, therefore, are not binding to the administration. In addition to the above mentioned objectives of the Committee, some of its major functions are to review the progress of work, to consider allocation of budget proposals, to approve development schemes and to recommend subsidies to individual villagers.

The Block Advisory Committee meets at varying intervals of time the average being 3 to 4 times per year.

It is also worthwhile to note as to how the contacts between the Block Advisory Committee, District Development Committee and State Development Committee are maintained.

The chairman of the Block Advisory Committee is the secretary of the State Development Committee.

- 1) There are about 206 District Boards spread all over the States except in Assam, Kerala, M.P. and Orissa. The District Boards consist of a prescribed number of members, elected on the basis of adult franchise, reservation of seats being provided for Scheduled Castes, Scheduled Tribes and for minorities too. Chairman and Vice-Chairman are generally elected by the Board Members.
- 2) Report of the Team for the study of Community Projects and National Extension Service, 1957, p. 90.
- 3) Members of Legislative Assembly.
- 4) Members of Parliament.

of the District Development Committee. The exchange of ideas between these two committees takes place through the former. The contact between the District Development Committees and the State Development Committee is maintained through the District Magistrates and the Development Commissioner respectively. The Development Commissioner of the State acts as the secretary to the State Development Committee and keeps mutual contact with the District Magistrates or Collectors.

Thus there is direct contact and exchange of ideas and information between Block Advisory Committees, District Development Committees and the State Development Committee. ^{Summary} Some of the significant characteristics of the present administrative organisation are as follows:

1. In recognition of the necessity of association of unofficials with programme and development activities there seems to be a provision for consultive and advisory committees to be associated with administrative personnel of various levels.
2. The past experience in the field of rural development has shown when a farmer was approached by several persons to carry out work of their respective departments, he found himself in a state of confusion and no permanent impression was left on him. But with the concept of the multipurpose Village Level Worker, the above difficulty has been overcome.
3. Earlier experience with development departments had shown that there had been duplication of work because of non-co-ordination among the workers. Absence of proper communication between levels of administration involved confusion and frequent delays. ^{Because of blanda gaundive, joraiab effi ni khow} The supply line was often obstructed to a point that what was needed often reached the village level too late to be of any use. By placing the Development Commissioner at state level in charge of the planning and development work, the priority and prestige of work could be stressed. The direct channels of communication from the highest to the lowest levels have been established.
4. In order to change the cold, bureaucratic ways and the official mentality of the former regime, understanding of the paralakhind and the grasp of the methods of extension work were considered indispensable to those who were to work in the administrative set-up. Accordingly an executive training programme was initiated in 1954 to train Project Officers and Block Development Officers. The main objective of such training is to mould the personality of the B.D.O. and help him in understanding and developing a profound faith and conviction in the programme, so that he may in turn charge his co-workers with the same energy and may inform them and the village people with whom he is to work, with the same profoundity of conviction in the programme.

1) S.C. Dube, India's Changing Villages, 1957, p. 16.
2) K. G. Bhandari, Kurukshetra, Vol. 4, 1956, p. 40.

5. In order to secure popular participation on the widest possible basis, it was decided to utilise all existing local agencies in the execution of the development programme. Where such agencies did not exist or were not adequately developed, it was decided to create them. Representatives of the people were given places in different advisory committees. For example, in Madhya Pradesh the Government constituted Village Development Councils with separate committee for agriculture.
6. In order to determine the progress of the development programme in both quantitative and qualitative terms the Programme Evaluation Organisation of the Planning Commission was established. It has published valuable evaluation reports and also a few other studies of the different areas of development.
7. In recognition of the two important principles of modern administration namely, of research and progress- the Government of Utter Pradesh has established the Planning Research and Action Institute in 1953.

Some Drawbacks in the Present System of Community Development Organisation (official and unofficial)

1. It has been assumed by the Evaluation Committee Report and by all those who have from time to time expressed their views about the working of the administration that since the District Magistrate has been placed at the very head of the development work in the district, everything should be presumed to be going well. In my opinion there can not be a greater misconception than this. My submission is that the District Magistrate is the greatest misfit here. Even now our people are feeling him as the one concerned only with the maintenance of law and order in the district. He is feared by the people as a person meant for awarding punishment. Under such a belief the villagers may not be able to open their hearts and come closer to him.
2. In some states, the Revenue Officer, known as the Tehsildar, is also the Block Development Officer. This arrangement has been discouraged by the Ministry of the Community Development and Co-operation on the basis of the evaluation report¹⁾. This pattern is, however, followed in Bihar and Hyderabad. This arrangement is said to be defective because of the fact that the Tehsildar has little time for the development work and he is found imbued with what is known as the revenue-bureaucratic spirit.
3. There still exists the 'boss-subordinate' relationship among the project staff. Higher officials review their role largely as that of inspecting officers and continue to supervise and apprise the work of their sub-ordinates. Though it is a part of their duty,

1) Evaluation Report on the Working of Community Projects and National Extension Service Blocks, April, 1954, p. 24.

yet it gives an authoritarian tone to the administration. Theoretically the sub-ordinates are supposed to express their opinion freely, but in practice they realise that it annoys their superiors. In some cases individuals coming forward with new ideas and suggestions are considered to be trouble makers¹⁾.

4. Though there is an association of representatives of the local people with the official organisation of the Block through various advisory committees, yet some are not aware of their duties and responsibilities. I should like to quote the example of the village council of my own village, which has been under the Community Development Programme for the last four years. I do not find any change in the activities of the village council. It is as lethargic to-day as it was a couple of years ago. It is not taking any interest in the developmental work of the village. This is, in general, the state of the village councils. Until the village councils are activated I feel that development work can not advance much.
5. It will be useful if a closer link is established between V. L. W. and the village council. The V. L. W. may act as the development secretary of the latter and should place before it at the time of each monthly meeting the progress report of development work in the circle.
6. The V. L. W. is admittedly a multipurpose worker with a strong bias in favour of the dominant function of increasing agricultural production. It is recognised that with the present area of operation, he is not able to be as effective as we would like him to be. This area be reduced to 800 families from 1200 to 1500 families at present, as the larger size will deprive him in making personal contact with all the families in his circle³⁾.
7. There is a tendency to look at V. L. W. as chore boy who does all sorts of things at village level. Technical specialists or extension officers regard the V. L. W. as some one with a considerably lower status than themselves. They look down upon him and issue orders, perhaps because of the village level worker's low salary classification and educational experience. They should not forget that he is an educator and he must be regarded a member of the block team who has definite responsibilities to the villages to which he is assigned. This is necessary as a matter of co-ordination and proper working of block organisations.
8. Sh. Raghbi Sahai and Sh. Suresh Chandra, Members of the Parliament who were also members of the District Planning Committee, stated that these committees were absolutely ineffective. They stated, "We are, first of all, never given any agenda in advance of these meetings and really do not know what the work, powers and functions of these committees are"⁴⁾.

1) S.C. Dube. India's Changing Villages. 1957, p. 91

2) Report of the Team for the Study of Community Projects and National Extension Service. Vol. 1, 1957, p. 35.

3) Ibid. p. 33.

4) Kurukshetra, Vol. 4, No. 4, 1956, p. 8.

Organisational Chart of Community Development Programme

I Official

National Level The Ministry of Community Development and Co-operation. (with secretary, joint secretary, deputy secretaries, advisors, experts, directors and special officers in agriculture, animal husbandry, health, education, social education, irrigation, cottage industries, productive industries, etc.).

State Level

1. Development Commissioner.

2. Joint Development Commissioner.

3. Additional Staff:

specialists in irrigation, cottage industries, fisheries and according to the needs and problems of the area, in co-operatives and local self-government institutions.

District Level 1. Collector or

2. District Magistrate.

Block Level

1. Block Development Officer.

(in charge of 100 villages included either in the Community Development Block or the National Extension Service Block).

2. Extension officers; one for

a. Agriculture.

b. Co-operatives.

c. Panchayats (village councils)

d. Animal Husbandry

e. Construction Works.

f. Health and Sanitation.

g. Two Social Education Organisers.

(in charge of their respective works in 100 villages).

Village Level 10 Village Level Workers and only two women Village Level Workers are to be added when the intensive phase is reached.

One V. L. W. is in charge of 10 villages in the National Extension Service Blocks and 5 to 7 villages in the Community Development Blocks.

II Unofficial

National Level 1. National Development Council:

2. Prime Minister,

3. Community Development Minister and Ministers of other Ministries.

State Level 1. State Development Council:
2. Chief Minister of the State,
3. Ministers of Development Departments,
4. Development Commissioner is the Secretary.

District Level 1. District Development Committee:
2. Collector is the Chairman and District Planning Officer is the Secretary of the Committee.

Block Level 1. The Block Development Advisory Committee:
2. Members of parliament of Area,
3. Members of Legislatures, Principals of the schools,
4. Chairmen of Co-operatives etc.,
5. and other important local persons.

Village Level 1. The Village Council (Panchayat):
2. The Chairman and the members are from villagers.

India and the Netherlands

In the countries where agricultural extension first developed, adequate agencies already existed to take care of the tasks, such as the development of public works, trade and credit facilities, education etc. The Netherlands seems to have had adequate departments of public works, sound and responsible channels of trade and resources of credit. In rural areas there had been free elementary schools to make it possible for practically every child to receive basic education. "Since the end of the last century an excellent system of agricultural co-operative credit has gradually developed in the Netherlands. At present nearly all farmers as well as part of the non-agrarian population are members of a local co-operative farmers' loan bank, or otherwise, use it as a place to deposit their savings"¹⁾. The transport facilities seem to be adequate. "The Netherlands now has an adequate net-work of traffic routes, so that even the smallest villages are within reach"²⁾.

The university education too seems to be wide spread. Therefore, the idea of combining all these functions in one comprehensive rural development programme under a single administration did not arise. Hence there are separate administrations in the Netherlands to carry out various kinds of developmental work in the field of rural developments, whereas in India all aspects of rural developments have been combined under a comprehensive programme and a separate ministry has been put in charge of covering the entire country under this programme. In the Netherlands agricultural advisory work is carried out by the Ministry of Agriculture and Fisheries whereas in India it is the task of the Ministry of Community Development and Co-operation, of course, in close co-ordination

1) Rural Life and Rural Welfare in the Netherlands, 1957, p. 67
2) Ibid, p. 60.

of its programmes with those of the Ministry of Food and Agriculture.

At provincial or state level there is a Development Commissioner in India to look after the agricultural development work, whereas in the Netherlands there is no one such as a person who will look after the development of agriculture as a whole in a province or district. The Development Commissioner in India also acts as a co-ordinating agency for all the development departments, such as agriculture (crop-production, animal husbandry, veterinary, horticulture etc.) in a state, but in the Netherlands there is no such a co-ordinating agent. But because of the specialised nature of the advisory services in the Netherlands, there are independent advisory officers responsible for the development of their respective fields of development.

At the local or village level in India there is a multi purpose village level worker in charge of the rural development of the village as a whole, whereas in the Netherlands for the development of arable and grassland, horticulture and livestock there are separate advisory assistants for each.

However, in both countries attempts have been made to have consultive and advisory committees with administrative personnel at various levels, such as the National Development and State Development Councils in India and the National and Provincial Councils for Agricultural Advisory Work in the Netherlands.

In the Netherlands there is a close relationship among agricultural research, advisory work and to some extent residential teaching, but in India there is no such or very little relationship.

In India the agricultural research, advisory work and teaching are carried out by different personnel. It is only very recently that in India some of the agricultural research institutions have taken up agricultural extension work¹⁾. However, up till now there is no relationship between the field workers in agricultural extension and residential teaching institutions. In India the agricultural extension workers are already overburdened with the multiple task of village development, and it seems rather impossible to ask them to carry out regional agricultural experiments and to teach in teaching institutions to create such a sort of relationship as witnessed in the Netherlands. Nevertheless, almost all the agricultural Universities have agricultural extension as one of the major subjects to be taught in degree courses, such as B. Sc. (Ag) and M. Sc. (Ag). But their teachers are rarely connected with field work. Because of this reason the university agricultural education in India may not be compatible to field conditions.

In India the number of the multiple Village Level Worker in a Block depends mainly upon the policy laid down by the centre i. e.. there should be one V. L. W. for about 10 villages under the National Extension Service Block and about 5 to 7 villages under the Community Development Block. No consideration is given to the size

1) The Indian Agricultural Research Institute, New Delhi started postgraduate course in Agricultural Extension from 1955.

of holdings and the distance from one village to another. But in the Netherlands the number of local assistants, especially of the arable and grassland farming, is dependent on the number of agriculture farms.

In India there still exists the 'boss-subordinate' relationship among the field staff which gives a authoritarian tone to the administration. But in the Netherlands this sort of relationship seems to be no longer existing and the agricultural advisory workers work in a sort of team spirit. The local assistants seem to express their opinion freely to their superiors, but in India it is only possible theoretically and not in practice.

CHAPTER V

SELECTION OF AGRICULTURAL ADVISORY PERSONNEL IN THE NETHERLANDS AND INDIA.

The selection of personnel for any organisation depends on the objectives of the organisation, its programme and jobs. This is of acute importance in case of extension personnel, who have to work directly with the people and are concerned with the individual.

Coming to the objectives of the agricultural extension, Seaman A. Knapp, who was the pioneer of extension in the United States of America, described them as follows:

"The mission of agricultural extension is to solve the problem of poverty, to increase the measure of happiness, to add to the knowledge of comfort, to harness the process of all learning and to be useful and needful to human society."

Extension may also be defined as education, that is change of knowledge, skill and attitudes. Extension is to help people to help themselves. The extension worker is part and parcel of the people. This may include the clear understanding of a variety of complex cultural factors ranging from simple habits and accepted social practices to intricate patterns of belief, social structure, values and attitudes.

Kelsey and Hearne¹⁾ emphasise especially the educational character of extension. They classified the changes brought about by this educational process into three types:

- a. Changes in the skill - the way in which a person does something.
- b. Changes in the knowledge - in the amount of knowledge, kinds of knowledge and kinds of habits.
- c. Changes in the attitude of things felt, such as sentitiveness, personal social adjustments etc.

They further say that most of the extension objectives have economic and social implications. To achieve these objectives the people have to be assisted to recognise their needs, to analyse their problems, to find solutions and to solve them.

Schlup²⁾ lists the features of extension:

- a. It is education in agriculture, primarily of rural people.
- b. It is practical education, applying science to real life situations on a 'learn to do by doing' basis.
- c. It is education for action, action by individuals in improving their farms, their health and other individual needs, action by group to improve environmental, economic and social factors such as marketing, purchasing, community health, recreation and the like.
- d. It is education that stimulates farm people to analyse and recognise their own problems and to take steps to solve them individually or collectively.

1) Kelsey, Lineon D. and Heame, C.C. - Co-operative Extension Work. 1955, p. 116-120.

2) Schlup, Lister - The spirit and philosophy of Extension Work. 1952, p. 343-344.

e. It is a co-operation on two way road - facts and information and guidance plan come from the department of agriculture to the farm people and the problems and solutions developed by the people in turn flow back to the department of agriculture.

In a nut shell, it may be stated that extension is an out of school system of education and its main objective is to change the behaviour of the people with whom the work is done. This change in behaviour is brought about by changing the knowledge, skills and attitudes of the people. Extension is a continuous process of education in which the teacher and the learner contribute and receive. The extension philosophy includes further more as objectives the development of individuals in their day to day living, development of their leaders, their community and the country as a whole. In this process scientific information is brought to the people; their problems at the other hand are taken to scientific persons for solution. Extension is working in harmony with the culture of the people. While applying extension objectives the work is based on their needs, which may often differ from person to person, community to community, etc.

Penders stresses especially the production of agricultural goods and the raising of the standard of living of the rural people as the main objectives of the agricultural extension¹⁾.

In his words the first objective should always be the improvement of the technical and managerial side of the farming in field barn and market place. This should be of primary concern to agricultural extension, as other important aims, in terms of improved standard of living, leadership, development etc. are largely contingent on the increased efficiency of the farmer, which will form a lasting base for his increased earning power.

He further mentioned that since technical, economical and social factors in the rural society are closely interrelated, the scope of extension ultimately has to cover all these aspects.

The extension agencies should be initiated on these lines. The same line of thought is followed by Van der Plassche²⁾.

As interm report³⁾ issued towards the end of 1944 had already drawn attention to the time lag in putting the results of agricultural research into farm practice. It emphasised if the results of the agricultural research could be put into practice through agricultural extension it would result in increased production.

The above basic objectives of extension and principles discussed may serve as a guide to the selection of extension of personnel.

The Netherlands

Job Description of District Advisory Officer:

Before I mention the points given consideration in the selection

1) Methods and Programme Planning in Rural Extension, 1956, p. 15.

2) A. W. van der Plassche. Development of Agricultural Advisory Services in Europe Since 1950, 1954, p. 11.

3) The Agricultural Advisory Services in European Countries, O.E.E.C. 1950.

of Advisory Officers in the Agricultural Advisory Services in the Netherlands, it will be worthwhile to make clear that the chapter is mainly concerned with the selection of Advisory Officers, Head Assistants, and Local Assistants of Arable and Grassland farming, who correspond to the Block Development Officer, Extension Officers and Village Level Workers in India. In addition, some points regarding similar persons in Horticulture and Livestock Services have also been mentioned.

The Advisory Officers are the pivotal persons in the advisory services in the Netherlands and the entire advisory programme depends upon how clearly they understand their job and how efficiently they carry it out. The Advisory Officer is in charge of the development of arable and grassland farming in his district. He acts as a leader to the team consisting of specialists-assistants, local assistants and sub-assistants and other persons concerning administration. He is responsible of studying people, their agriculture and rural life to ascertain their problems and possibilities of solving them. He tries to obtain aid from farmers and their organisations to develop and carry out the extension programme. He maintains a public office where rural people may call or write for all problems relating to technical and managerial aspects of agriculture. He acts as secretary to the pilot area committee and can also be nominated as a secretary to the Provincial Council for Agricultural Advisory Work. He works as the Director of the Regional Experimental Farm to carry out regional experimental work suited to a particular type of soil, climate and farm practice. In addition, he renders advice on problems concerning farm management, cattle feeding, crop rotation, mixed farming and cropping etc.

From the above it is obvious how wide the job responsibility is of the Advisory Officer. His relation with the farmers is that of a professional leader¹⁾, engaged in introducing new technological changes in the farm, a promotor of individual and social growth, a teacher, an adviser, an evaluator, a helper of his own programme.

It is indeed a difficult role and it takes time to learn all the techniques of becoming a successful adviser. Besides, unlike in India, in the Netherlands the Agricultural Advisory Services are not regarded as services providing employment. It is a service consisting of personnel who are selected in view of the objectives of the advisory work and the nature of the job to be done. The selection of the Advisory Officers is carried out according to certain rules laid down for the purpose.

Some of the points given consideration in the selection of the Associate Advisory Officers²⁾ are as follows:

1. Personnel information:

- a. Education and Training: He must be "Landbouwkundig Ingenieur" of the State Agricultural University, Wageningen.

1) Professional Leader may be defined as one who is more than ordinarily efficient in stimulating response from other and is paid for the same.

2) Advisers are first appointed as Associate Advisers and later on after some experience they are promoted to Advisers

- b. Previous second of employment if any.
- c. Fields of primary interest.
- d. Health condition.
- e. References.
- f. Military Service.
- g. Individual information such as farm bred or not.

2. Information on the following:

- a. Technical background and experience.
- b. Ability to plan and organise the work.
- c. Ability of working with people - rural and coworkers.
- d. Ability to express himself.
- e. Enthusiasm and creative ability.

3. Personal Interview: to give the applicant the information he should have in taking the decision whether he should accept the offer or not.

At present the interview is not considered to be a complete device for determining mental ability, aptitude, and skill of the candidate. So he has to go through a "psychological test" carried out by the State Psychological Institute, the Hague. Also the opinion of professors of the State Agricultural University is invited concerning the academic record of the candidate, his suitability to work in the advisory service etc.

Finally, the opinion of Superintendents of Agricultural Advisory Services and Agricultural Research, located at the Ministry of Agriculture and Fisheries, are obtained on the candidate concerned.

If the opinions of the professors at the Agricultural University, the result of the psychological test, and the opinions of the two superintendents, mentioned above, are positive, the candidate can be selected to work in the advisory services. If there is some difference of opinion the candidate may be given a chance to work for a year or so to show his worth. Later, if he is found to be suitable he can be confirmed as Associate Advisory Officer, otherwise he is to choose some other profession.

Job Description of Local Assistant

In fact, there are two ways of carrying out the working programme. Firstly, by following a specific working schedule and secondly, without any specific schedule. In the latter case the local assistant may be well aware of his duties and there may be no need to give him specific directives. To give an example, a specific working programme of local assistants which they are supposed to carry out during the period of one year is given below:

A. Extension Activities:

- I . a. The Local Assistant should visit farmers in his area.
 - b. He should answer telephonecalls to his office.
 - c. He should receive farmers as visitors in his office or near a market place.
- II . The local assistant should give short talks to groups of farmers, each group consisting of 10 farmers.
- III. a. He must hold an annual meeting with at least 60 farmers as members of local associations. During this meeting

he gives the annual report of his work, shows, movies and has discussions.

- b. He should also hold one or two general meetings with the local farmers' associations in which short talks about certain topics should be given.
- c. He should have at least four meetings with agricultural school teachers.
- d. He should carry a group of agricultural teachers round the district during the summer season.

IV. At times courses should be given to farmers on subjects like cattle feeding and at least 14 farmers should attend such courses.

V. At least 10 circulars should be issued to the members of local associations¹⁾.

VI. Demonstrations of topics like methods of hay and silage making should be given at least two or three times a year and at least 10 to 15 farmers should attend them, especially the demonstrations concerning farm work.

VII. One to two trips for members of local associations are organised to experimental farms.

B. Practical training of students in Primary Agricultural Schools where results of soil testing, demonstration of hay and silage making etc. are discussed.

C. Maintenance of experimental plots.

D. Evaluation of his work, in the form of an annual report to his Superior.

It is estimated that in general the time spent by a local assistant in carrying out his working programme comprises the following items²⁾:

<u>Percentage of time spent on various activities</u>	
Extension	50-70% (3/4th on individual contact)
Courses and meetings	10-20%
Administration	10-20%
Field Trials	5%
Sampling Dates	5%

Selection of Local Assistant

Nowadays the selection of local assistants is carried out from the group of selected and trained local sub-assistants. Consequently the quality of sub-assistants will tell on the quality of assistants.

However, previously (before the start of a Central Training Course in 1957) local assistants were recruited directly. In order to deal with the selection of local assistants, it seems necessary to throw a light on the selection of local sub-assistants who form the base

1) The members of local associations contribute on an average 50 cents per hectare as their contribution to the association fund. The amount of money so collected is used for the expenses of circulars, special visits of assistants, telephone calls by assistants to the members and such-like.

2) Obtained from the Ministry of Agriculture and Fisheries, the Hague.

of the former.

During the course of my visits to various advisory officers I found instances where applications for the job of sub-assistants were not only invited by advertisement in news-paper, but also by asking the Directors of Winter Agricultural Schools¹⁾ to submit a list of candidates that are considered suitable for agricultural advisory work.

When the director of an agricultural school is asked for the names of suitable candidates, he is requested to fill a form sent by the District Advisory officer. In these forms he furnishes the information about the candidates. A true copy of such a form is given below:

Agricultural Extension
Service.West-Overijssel
Office: Nieuwe Haven 12,
Telephone: 4547 (05200)
Transfer account 807491
Circ. 120
Archives CC 3
Concerning: application

Zwolle, April 17th 1955

To Mr. -----,
Brucht B 22,
HARDENBERG.

Before making use of your application I should like to receive from you the answers to the questions mentioned below:

Name: ----- Christian name: -----

Born on: October 16-1930 at: -----

Residence: ----- Address: -----

Married or unmarried: Unmarried. Number of children: none

Education:

Which primary school was attended?: Public school at -----

When left?: May 1943.

Education after leaving the primary school:

3½ year at the secondary school in Hardenberg
Chr. Agricultural Winterschool at Heemse - some short courses.

Which certificates do you have and when did you get them?:

Christian Agriculture winterschool in 1950.

Handmilking course in 1949.

Course on farm machinery in 1954.

Which Agricultural Winterschool did you attend and when did you get your certificate of this school?:

Christian Agricultural Winterschool at Heemse

April 15-1950

1) Now known as Middelbare Landbouwschool.

Number of students passing the examination: about 40. Gradation-list: third
Average figures for: Dutch language and arithmetic at the two last reports of this school: language: $7\frac{1}{2}$ arithmetic: 9

Proceedings:

Professions of Father: Farmer and director of the -----
If farmer, which type of farm: Mixed; kind of soil on farm: sandy - loam and peatsoil.
Size: 27 ha: Arable land, 8 ha, grassland, 19. ha
Average number of milking cows of the farm: 15.
Practice in farming:
1. At my father's farm in this district since May 1947, until now.
Other proceedings, study and/or jobs after your 21th birthday.
From till at kind of proceedings
last wages: none only at my father's farm.

Space for giving more informations:

Because my brother had to serve in military service in Indonesia, he couldn't take care of the management of my father's farm. My father couldn't do this either, because he had to work as the director of the -----. In this way I had to take care of a part of the management of my father's farm which is the reason I had stop my study at the secondary school. Further on, I followed some courses (without certificates) such as, cattle-feeding, selection for seed potatoes, general education etc. I also have a driving licence for driving cars.

Date:
April 14, 1955.

Signature:
(-----)

After obtaining the relevant information from the director of the school, the Head Assistant of the area concerned visits the candidate personally to collect some additional information. During the visit of the Head Assistant, the candidate is asked to give information on the following items:

1. Education - where he was educated and how much agricultural education he possesses ?
2. What is grown on this agricultural farm? This is asked to know how much information he possesses about his farm which indirectly reflects his interest in farming.
3. How seed selection is carried out?
4. He is also asked to give some information on topics like methods of hay and silage making, maintenance of pastures, the growing of arable crops, cattle, improvement, farm implements maintenance, keeping of pig, etc.

The main idea behind such questions is to judge his technical knowledge in the field of agricultural.

5. What are his hobbies? An assistant should have at least some hobby.

This "at the spot" interview lasts for about one and half hour. Then the candidate is taken around the farm by the Head Assistant to confirm the answers he gave to the questions asked.

After the collection of such information on each candidate the compilation of the same is carried out at the headquarter of the district advisory officer. The information collected is discussed with the advisory officer who gives his opinion on each candidate. If there are two or three candidates with the same qualification and qualities, they are called for the final interview at the headquarter. The idea behind this sort of interview is to compare and to get impressions about the expression power, personality, physique etc. of the candidates.

TABLE OF JUDGING FOR ADVANCEMENT AND APPOINTMENT IN TEMPORARY OR PERMANENT SERVICE OF ASSISTANTS AND HEADASSISTANTS

District: Westelijk Overijssel

Date of sending in
this list: 28-11-1956
Number of the letter: 3171

Name: -----
Born : October 16-1930

Christian name: -----

Function:

Present function: District Assistant since: 1-9-1956

Proposal for appointment in permanent service:

Proposal for appointment as:

Because of vacancy:
(to fall in the reason)

Residence: -----

District: Gleethorn number of district: 4

Proposal date: May 1, 1957

JUDGING:

Judged by the head of the
Agricultural Extension Service.

A. Practical knowledge (figures 1-10)	8
B. Theoretical knowledge (figures 1-10)	8
C. Character qualities	
1. Reliability	very good
2. Accuracy	good
3. Activity	good
4. Independence	good
5. Initiative	good
6. Responsibility	good
	7. To accept management
	8. To tell his thoughts
	9. Idea to develop in agriculture
	10. Observation ability
	11. Critic observer
	12. Connection with farmers

Explanation:

Most of the questions about character-qualities can be answered by yes or no or by insufficient - moderate or good.

If you don't have a good founded impression about certain character qualities, please don't fill in anything.

Is the person in question prepared to take an intelligence test by the Government's Psychological Service? Yes.

Inorder: The Inspector of the Agricultural Extension Service.

Finally, the selected candidate is forwarded to the Ministry of Agriculture and Fisheries for approval. All the information about the candidate is sent to the Ministry either in the form of a report or performa filled in by the advisory officer. A true copy of the performa has been given above.

On the other hand, when applications are invited by advertisement in the news paper the candidates are supposed to supply their own information. A considerable time is given for sending in applications. After the applications have been received, a preliminary selection is carried out on the basis of the information furnished by the candidates themselves.

Later on the Directors of the agricultural schools in which the candidates received education, are asked to send their opinion concerning their aptitude and academic career. The rest of the procedure of selection is the same as given in the preceding paragraphs.

After the at the 'spot' information on the candidates has been obtained, the final selection is carried out on its basis. Such selected candidates are appointed on a temporary basis as local sub-assistants. However, the selection of these local sub-assistants is entirely dependent upon the district Advisory Officer of the district concerned. They serve in this capacity for about two years and then the Advisory Officer recommends the case of the probable assistants (who have been serving as local sub-assistants) to the Ministry of Agriculture and Fisheries to be sent for the Central Training Course. This course forms a part of the induction training of the local assistants. But before the Ministry sends them for such training, they are sent for a psychological test to the State Psychological Institute at the Hague. In all the test process consists of the following series of tests:

- a. Concentration Test.
- b. Vocabulary Test.
- c. Test for Practical Reasoning.
- d. Organisation Test.
- e. Personality Test.
- f. Aptitude Test.

The ways in which these tests are put to candidates are confidential, so it is not possible to describe their exact nature. However, the idea behind all these tests is to select a person who is most suited to the advisory service. The concentration test is to see from how long ago the candidate can remember particular events. The vocabulary test is to measure the knowledge of words which are mostly needed in writing circulars, reports etc., the test for practical reasoning is to see whether the testee can use the words in the right order so as to express himself clearly, the organisation test is to test the organising capacity of the candidate, the personality test is to know the development of the candidate as a whole and finally the aptitude test is to see whether the candidate has the aptitude to work in the advisory service and to stay in rural areas.

After this psychological test, the candidates or local sub-assistants are sent for the central training course. At the completion of the training course examinations are held to test how far the trainees have been able to grasp the subjects taught during the train-

ning period and how far they have been oriented in the philosophy and methodology of extension. The leader of the training course sends his report to the Ministry of Agriculture and Fisheries. If the recommendation of the District Advisory Officer under whom the local sub-assistant has worked, the findings of psychological test and the results of the Central Training Course are more or less alike, the person concerned is supposed to be suitable for the appointment of local assistant. As soon as any vacancy arises he can be appointed as local assistant.

Sometimes there is difference between the opinion of the District Advisory Officer and the findings of the psychological institute. In such cases the former is invited to the institute to discuss the case concerned and a final decision is reached. It is stated that in about 80% of the cases there is a correlation between the report and the opinion of the advisory officer and the findings of the psychological test.

I should like to say a few words concerning the chances of promotion of local assistants. The local assistant can be promoted to specialist assistant or become a member of the higher staff. But he can never be an Associate or Advisory Officer. It is only after a service experience of five to ten years that one can expect such a promotion. Besides, promotion of the local assistants to extension specialists is based on the report of the following officers:

1. The Central Specialist Adviser of the branch in which the assistant worked before promotion.
2. The Advisory Officer.

A special psychological test carried out by the State Psychological Institute at the time of promotion is taken into consideration.

All the above mentioned authorities send their reports to the Ministry of Agriculture and Fisheries. If the three reports are positive the local assistant concerned is promoted to one of the higher jobs. If two authorities have a favourable opinion about the local assistant and one a disfavourable one, the Ministry gives him a chance to work for one year in the capacity to which he would be promoted. Later the person concerned can be confirmed in that job. But if the three authorities have a negative opinion about the local assistant to be promoted, he can not be given such a chance. In this case a committee is appointed to discuss the matter and to take a final decision on the promotion of the local assistant. The latter is given the chance to plead his case before the committee, which consists of the Director of Arable and Grassland Farming, the Head of the Administrative Selection of the arable and grassland farming, and the Director and the Superintendent of the Agricultural Advisory Services.

During the course of my discussion with the Advisory Officers and the staff members of the State Psychological Institute, I came across the the following weak points in the methods of selection of the advisory personnel.

1. I have been given to understand that the psychological test is only applied to the personnel of the arable and grassland farming service and not to those of the horticultural and livestock services.

The principle and philosophy of extension is alike for all the advisory personnel and the tests concerning concentration, vocabulary, practical reasoning, organisation, etc. are as important for personnel of arable and grass farming as for those of the other two sevices. If one believes that the psychological test has some advantage in selecting personnel, most suited to the type of work, than why not follow the same principle for personnel of horticultural and livestock advisory services? In the author's opinion the psychological test should also be applied for the selection of advisory personnel for horticultural and live-stock services.

2. It is stated by most of the Advisory Officers of the arable and grassland service that in the selection of local assistants of 21 to 24 years of age, there generally is a difference between their recommendation for the latter and the findings of the psychological test. But when the same personnel are sent for the psychological test again after one or two years, they are found suitable for the advisory services by the psychologists.

Consequently, it is their opinion that the psychological test should be modified for the younger assistants, because they are found to be unsuitable by the same test when tested earlier, but suitable after one or two years. The psychological institute has to find a way to overcome this problem, otherwise, Advisory Officers may lose confidence in the test.

3. During my visits to various Advisory Officers I noticed that in some places there is no clear programme for the local assistants. Most of the time local assistants wait for the farmers to come to them. In the words of Miller ¹⁾ one must have a dynamic programme. He must reach out where the people are, rather than to wait for them to come to him. Accordingly a specific programme of work should be laid out for the local assistants to be carried out during the period of one year. This will keep the assistants aware of their duties and responsibilities.

India

The Community Development and the National Extension Service programmes were outlined by the Planning Commission of the Government of India in the First Five Year Plan as essential for the improvement of all phases of village life. In chapter XV of the plan the Planning Commission made the following observations ²⁾ :

"The Community Development is the method and the Rural Extension is the agency through which the Five Year Plan seek to initiate a process of transformation of social and economic life of the village."

Keeping this broad objective in view the Ministry of Community Development and Co-operation, Government of India, enlisted the following specific objectives of the Community Development and National Extension Service programmes ³⁾

1) Miller, Paul E. Development of Advisory Services in Europe since 1950. O.E.E.C., 1959, p. 23.

2) First Five Year Plan. Government of India, 1952, Chapter XV.

3) A Guide to Community Development. Government of India. 1957.

1. Changing of the outlook of the people.
2. Self-help and self-reliance and the largest possible extension of the principles of co-operation.
3. The development of responsible and responsive village leadership and village organisations.
4. The development of villagers' participation.
5. Helping the villagers to increase their income.
6. Training the village youth to assume citizen responsibilities.
7. Establishment of the close relationship to the village school and village teacher with all phases of village development.
8. Helping the villagers to learn the causes of disease, to prevent them and the teaching of healthful living.
9. Improvement of the communication system-India's life line through out the country.

The National Extension Service aims at reaching every family in the countryside and at securing co-ordinated development of rural life as a whole. The motive force for improvement should come from the people themselves. The achieving of these objectives require time spread over the period of at least one generation. A programme inspired with such high objectives and mission, expected to cover almost one-seventh of the world population needs personnel who are well trained for their jobs.

The Job Description of the Block Development Officer

The Block Development Officer is the designed leader of the Block extension workers. His success depends on earning through his actions the respect and affection of his staff and recognition by them that he is a leader of the team. The following are the major aspects of the job of the Block Development Officer:

1. Programme planning of the Block, which involves assessment of the needs and the resources of the Block, village by village and family by family in close association with the people concerned. And then to get the village programme formulated by the people themselves or at least in active consultation with them and finally to build up the block programme based on the village programme and relink it with the district or the state plan.
2. Programme execution which consists of:
 - a. The formulation of a working plan for each item of the Block programme under agriculture, animal husbandry, co-operatives, irrigation, land reclamation, village craft, communication, social welfare, rural housing, health and sanitation, panchayats, youth organisations and other programmes to meet the needs of the Block as felt by the people.
 - b. Advice and guidance to the people concerned in deciding the ways and means of executing the plan.
 - c. Tapping the resources of the existing agencies in the area and to integrate them with the block grant.
 - d. Administrative and supervisory work.
 - e. Assurance of the people's participation at every stage of the programme and creation of the functional leadership in the villagers.

3. Administration which consists of:
 - a. The organisation of the administrative set up, the collaboration among the staff and the development of the inter-departmental understanding, co-operation and co-ordination.
 - b. Budgeting, accounting, drawing and disbursing money.
 - c. Stock building of equipment and the establishment and the maintenance of the supply lines.
 - d. Periodic meetings of the staff, direction of the meeting of the advisory committee and other agencies helping the Block.
 - e. Preparation of a comprehensive job chart for the Village Level Workers and to supervise, inspect and guide their work.
 - f. Touring the Block area to gain firsthand knowledge and develop closer contacts with the people.
 - g. Maintenance of the office record.
4. Job relating evaluation: this consists of the evaluation of his own work, the work of the Village Level Workers and other block organisations and agencies concerned with extension work.

The bases of selection of a Block Development Officer

The Block Development Officers are selected on the basis of the following qualification:

1. Educational qualification: A Block Development Officer should be in possession of a Graduate Degree of any recognised University, preferably he should be an agricultural graduate.
2. He should have sufficient field experience in field work, especially concerning rural development.
3. He should be well aware of village surroundings, habits, customs, etc.
4. He should possess liking for the rural surroundings and rural people.
5. He should have to be a good administrator.
6. He should also possess the ability to be a good friend, to be a guide to the block staff, and to express himself freely to plan and organise the work etc.
7. If possible, he should be farm bred.

Prior to their new assignment as Block Development Officers most of them have been working in the Revenue Department as Revenue Officers especially in states like Bihar, Rajasthan etc. When the programme of the National Agricultural Extension Service was launched in 1953, it was not possible to have reasonably suited personnel for the service, as the time to imbibe them with the extension principles and agricultural knowledge was too short and limited. Consequently most of the persons to act as Block Development Officer were borrowed from the various development departments like the Co-operative, Animal Husbandry etc., including the Revenue Department. Especially the persons from the Revenue Department have established a tradition of exercising power and maintenance of law and order. With the opening of the new blocks they were transferred as Block Development Officers, as leaders of the team of extension workers. They have to perform all the duties

listed previously. But in the subsequent years, emphasis was laid on having persons with agricultural education and a rural background.

At present the selection of Block Development Officers is being carried out by the Union Public Service Commission in the centrally-administered territories known as Union Territories¹⁾ and by Public Service Commission in the rest of the states.

a. Selection of Block Development Officers for Union Territories:

An advertisement, containing in detail the requirements of the post of Block Development Officer is given in local and central newspapers by the secretary of the Union Public Service Commission and applications are invited from candidates. The Secretary with the help of the administrative staff selects a few candidates on the basis of their qualifications, and experience. Later on the so selected candidates are called for an interview before the selection board which consists of the members and the chairman of the Union Public Service Commission and a specialist, who advises the commission on the educational background of the candidates. The main purpose of such an interview is to collect information about the candidates on aspects like personality, background of village conditions, experience, administrative capacity, etc. and to give the applicants information which he should have before taking decisions whether he should accept the offer or not. The applicants may be entirely fresh university graduates, or in Government service permanent or temporary officials or may be working in private concerns. In case of Government employees, the applications are forwarded by the respective heads of the departments to the Union Public Service Commission. In most of the cases this procedure takes quite a long time, as much as a year. But the starting of new Blocks cannot be delayed for such a long time. In such cases the Development Commissioner of the state or the territory has the power to appoint anybody on a temporary basis as Block Development Officer for six months. After this time the officiating Block Development Officer has to be approved of or reselected by the Public Service Commission of the state or the centre concerned. In most of such cases the choice of the Development Commissioner falls on Extension supervisors who possess quite sufficient field and working experience in other Blocks.

b. Selection of Block Development Officers for the rest of the states of the country is carried out by the Public Service Commission of the state concerned and the procedure followed is just the same as described above.

1) In November 1956, in accordance with the provision of the States Reorganisation Act, India recognised 14 states and 6 centrally-administered territories known as Union Territories. States- Andhra Pradesh, Assam, Bihar, Bombay, Jammu and Kashmir, Kerala, Madhya Pradesh, Madras, Orrisa, Punjab, Rajasthan, Uttar Pradesh and West Bengal. Union Territories- Andaman and Nicobar Islands, Delhi, Himachal Pradesh, Laccadive, Minicoy and Amtadivi Islands, Manipur and Tripura.

The job description of village level worker

The Village Level Worker is a friend, guide and philosopher of the village people. He is the foundation on which the whole scheme of the National Extension Service is based. At village level he is the representative of all the departments connected with rural development like Agriculture, Animal Husbandry, Co-operative, Village Council, Education, Public Health and others. He is the link between the villagers and the development team at Block level. Some of the major duties of a V. L. W. are as follows¹⁾ :

1. To help all the village people and to take to them the latest results of the scientific research in various fields. His task is to convince them about the utility of new agricultural practices and to encourage them to adopt them.
2. To make a careful study of village problems, resources and potentialities of every family of the village and for this purpose he must know the following.
 - a. The geographic boundry of the village.
 - b. People of the village-men, women, children, - their age groups, occupation, literacy etc.
 - c. The different ways in which the people are grouped together and associated with each other in village activities, village councils, co-operatives, other local organisations, recognised village leaders, religious practices and festivals.
 - d. The size of land holding, the tenure system, the crops grown, the agricultural practices followed, the attitude of people toward adopting new practices and Government help in the form of subsidies etc.
 - e. Village industries, crafts and other resources of productive employment.
3. To encourage and stimulate village people to think about their needs and problems, to find solution, assess resources, decide on priorities and formulate family and village plans.
4. To help villagers in the execution of these plans, evaluate their results and make suggestions for change where-ever necessary.
5. To understand the local rural practices and problems and to learn from the vast amount of experience which the villagers possess in solving their problems. He has to co-ordinate the village experience with findings and recommendations of research stations.
6. To help village people to organise village co-operatives and village councils and to run them efficiently.
7. To discuss and develop village leadership.
8. To maintain a record of all his work and submit it fortnightly or monthly with other reports to Block Development Officer.
9. Getting his hands dirty, i. e. demonstrate with his own hands. Unless he himself is ready to do all jobs himself, he cannot expect others to do so.
10. To know the proper use of Extension Methods so as to make farmers understand to accomplish the following:

1) Compiled from Manual of Village Level Workers, 1956.

- a. To prepare the soil for sowing the seedbed.
- b. To follow a definite rotation of crops.
- c. To select the seed in a best way.
- d. To harvest crops with the least loss of grains.
- e. To store the grains properly.
- f. To meet fodder scarcity in the dry season.
- g. To construct sanitary latrines.
- h. To plant and care vegetable gardens.

In addition to the above there are several other jobs dealing with agriculture and other aspects of village development, which, however, need not be mentioned here.

Selection of the Village Level Worker

The bases of selection of Village Level Worker

In order to perform the above listed jobs successfully, the following points are considered for the selection of village level workers:

1. A village level worker should be the resident of a village, possessing a rural background of the region in which he is to operate and preferably be connected with farming.
2. He should show keen desire and enthusiasm for village life.
3. He should have knowledge of village problems and aptitude for village work.
4. He should be physically strong enough.
5. He should have the quality of getting his hands dirty first.
6. He should have attained at least the age of 21 years.
7. He should be able to learn and display practical skill in agriculture and ability to convince the villagers of usefulness of improved practices.
8. He should have the minimum educational qualification - High school examination.

At present the selection of village level workers is made by inviting applications on advertisements in English and Hindi news papers of the state and sending at times the information to Headmasters of high schools. After the scrutiny of all applications, suitable candidates, who fulfil the basic requirements are called for the interview before the Selection Board which consists of the State Development Commissioner or his representative, the Director of Agriculture or his representative, the Principal of the Extension Training Centre, the Principal of the local agricultural college and two or three unofficials nominated by the Development Commissioner.

Each candidate is interviewed separately by the board and each member of the board asks questions relating mainly to his own field. Persons who qualify for this interview are sent for induction training in Extension Training Centres. If a person is found unsuitable during the period of induction training he can be weeded out, even though he has been selected and recommended by the selection board. However, such cases are very rare.

In addition to village level workers, there are some Extension Of-

ficers (Appendix E) who assist and advise the former. Extension Officers are for Agriculture, Animal Husbandry, Co-operation, Village Panchayat and Small scale Industries and social Education. Here only the selection of the Extension Officer for Agriculture, who corresponds to a Head Assistant in Arable and Grassland Advisory service in the Netherlands, will be mentioned.

Duties of the Extension officer:

1. To help the village level workers, especially in the matters concerning crop-production.
2. To visit farms and farmers when village level workers need him.
3. To make working plans of village level workers.
4. To give recent information to village level workers.
5. To consult subject matter specialists to help village level workers.
6. To supervise the monthly work of village level workers.
7. To look after the social welfare of village level workers.
8. To help village level workers in making fortnightly and monthly reports.

Unlike the Head Assistant of the Arable and Grassland Advisory Service in the Netherlands, the Extension officer for Agriculture is directly selected from outside or open market. Rarely a village level worker is promoted to Extension Officer, unless he possesses required qualifications and field experience. The educational qualification required for Extension officer is B. Sc. (Ag) or Bachelor of Agricultural Science¹⁾ of a recognised university.

For the selection of Extension Officers, applications are invited by the Development Commissioner of the state by advertising in local and state newspapers. After going through the applications received, a preliminary selection of candidates is carried out and the candidates who fulfil the basic requirements are called for an interview before the selection board. The selection board consists of the Development Commissioner of the state, as chairman, the Director of Agriculture, the Secretary of the Agriculture Department and other officials and unofficials nominated by the Development Commissioner.

Each candidate is interviewed separately. The criteria for selection of candidate are proper aptitude for work, physical fitness, sincerity of purpose, mental alertness, personality, general suitability of the candidate etc. Questions are put to candidates to assess his general knowledge. The candidates found most suitable by the selection board are selected from the interviewees and recommended for appointment.

Some of the weak points in the selection of extension personnel:

1. The Block Development Officer is the key-man of the whole

1) Corresponds to "candidaat" Examination of the State University of Agriculture, Wageningen.

agricultural extension, nay developmental schemes.

Therefore, he must be a capable administrator who understands the mechanism and working structure of the Government which is above him. Apart from this he has to be much more than an administrator. He must be a humanist, who has sympathy, simplicity, insight and understanding of the life and aspirations of the village people. He must have general understanding of all types of work that are carried out in the block. So the selection of Block Development Officers is of an acute importance for the successful implementation and execution of the agricultural extension programme. It has been noticed that some of the Block Development Officers possess no training and education in agriculture which is entirely indispensable for rural development. Some of them are "Law Graduates" some are "Art Graduates" and some do not possess any sort of university diploma. Such persons lack agricultural knowledge, though they may be good administrators.

In my opinion, we should try to have Block Development Officers who possess a development point of view instead of an administrative one. For this purpose it seems necessary to select such persons as Block Development Officers who possess a reasonably good education in agriculture and social sciences which deal with almost all aspects of rural development.

According to the Fifth Evaluation Report¹⁾ on the working of Community and National Extension Service Blocks 11% of the Block Development Officers are non-graduates i.e. possess no university diploma, 66% are graduates or post graduates and the remaining 23% are technical graduates. Though the minimum qualification needed for a Block Development Officer is university degree, yet non-graduates are being selected. This practise should be discarded at the earliest, if a proper and uniform educational standard is to be maintained among Block Development Officers.

2. It has been noticed that persons who have not undergone Block Development Officer's induction training are holding the posts of Block Development Officers. The fifth²⁾ Evaluation report also indicates that out of 81 Block Development Officers only 63 had been having the prescribed training and the rest, though working as Block Development Officers, were without such a training. Efforts should always be made to impart induction training to the persons before they are appointed as Block Development Officers.
3. Some of the Block Development Officers have been Revenue Officers before they joined the Block Development Officers cadre. As soon as such persons were appointed as Block Development Officers, most of them tried to assume leadership by emphasising their authority and position rather than winning leadership

1) The Fifth Evaluation Report on Working of Community Development and N.E.S. Blocks; Programme Evaluation Organisation, Planning Commission, Government of India, 1958, p. 161

2) Ibid, p. 161.

by their qualities, methods of approach, team spirit, appreciation of staff difficulties and view points etc.

The Fifth Evaluation Report states that out of 81 Block Development Officers from whom questionnaires were received 32 were working in Revenue Department and only 14 were from the Agriculture Department. This means a greater part of Block Development Officers working at present come from the Revenue Department. But if we want persons who win leadership by their qualities and can really work in team spirit, no more persons from the Revenue Department should be taken up to work in the Community Development Programme. There is also a tendency of directing and closely supervising the village level workers rather than helping them. This sort of tendency is detrimental to the team spirit work of a block staff. However, this tendency can be over come if care is taken not to select persons from Revenue Departments. Those who are selected as Block Development Officers should be completely oriented to be good extension workers.

The time taken by the Public Service Commission in selecting the Block Development Officers is too long to meet the growing need of more and more Block Development Officers required for new Blocks to be started or which have been started recently. The Public Service Commission should keep in view the importance of the Block Development Officer in a block. A Block without a good Block Development Officer is like a house without a good foundation. Besides the whole Indian rural population is to be covered by the National Extension Service Scheme by the end of the Second Five Year Plan and this target may stay a dream if suitable Block Development Officers are not available to start and look after new blocks. Accordingly the Public Service Commission should try to minimise the time taken for the selection of Block Development Officers.

It is stated that the minimum qualification for a village level worker is the High School Examination¹⁾ certificate. But in most of the places like Uttar Pradesh, a certificate of three months social service was considered an adequate qualification for recruitment as Village Level Worker. Such persons do not have any agricultural background and even if they are trained for a sufficiently long time, they may not adopt an agricultural outlook, when compared with those having "high school" as basic education diplomas. Consequently the qualification condition should not be waved, except for exceptional cases.

Wilson²⁾ writes in his report on Community Development that there are not many sons of village cultivators among village level workers. But the reason for this may be the lack of schools in villages and of opportunities for "high school" education to village youths. Still whatever suitable candidates are available, we must ensure that they possess a rural background and an aptitude for hard manual work. It is necessary that the procedure

Corresponds to "Hogere Burgerschool" in the Netherlands.

M.L. Wilson. Working of Community Development projects in India, 1956. p. 31.

for recruitment should include, besides the interview, a written test on problems of rural developments, and a rigid physical endurance test such as walking, cycling, ploughing etc.

7. After the candidates have been selected and sent for training there seems to be no definite way of weeding out the unsuitable ones. The Team for the Study of the Community Projects and National Extension Service remarked ¹⁾, "Weeding out unsuitable personnel is a matter of which the Principals of the Village Level Worker training centres appear to be very chary. One should not forget that unsuitable personnel passing through a long course remains uneconomic and an administrative liability. The earlier he is weeded out the better it will be for both the administration and himself."
8. It is stated that a candidate should possess a rural background to be selected as Village Level Worker. However, the concept of rural background is not clear and the selection boards of Village Level Workers generally remain in doubt to decide whether a particular candidate really possesses this sort of background or not. The Team for the Study of the Community Project and National Extension Service ²⁾ has laid down that the criteria for "rural background" of a candidate should be that his parents or guardians live in a rural area and he himself spends at least his vacations at home.

The Netherlands and India

In the Netherlands, because of the specialised nature of the advisory services, the advisory officer must be a scientific person i.e. he must hold a "Landbouwkundig Ingenieur" diploma of the State Agricultural University. He should not only be a good administrator, but he should be a scientific person too as he is supposed to give advice on aspects of farm management, crop rotations etc. Moreover, in some of the districts he works also as the Director of the Regional Experimental Farm. The latter is especially true in case of the horticultural advisers. But in India educational qualifications are not adhered to strictly. A Block Development Officer may be a graduate or non-graduate of an university; he may be a scientific person, but he should be a good administrator. There are many such cases in India where Block Development Officers do not have the least agricultural education.

Many of them have never lived in villages, rather never visited villages before their appointment as Block Development Officers. Nevertheless, it was impossible at the start of the Community Development and National Extension Service programmes to find adequate persons trained and experienced in agriculture. However, at present almost every university has agricultural colleges and every agricultural student is aware of the importance of agricultural ex-

1) Report of the Team for the Study of Community Projects and National Extension Service. Vol. I, 1957, p. 61.

2) Ibid, p. 142.

tension. So efforts should always be made to have agriculturally trained persons as Block Development Officers. Some of the states like Uttar Pradesh, Dehli etc. have laid out the rule that every Block Development Officer must be an agricultural graduate of an University. But on the other hand, still some of the states select persons with law and art qualifications.¹⁾ The latter, practise should be discarded and only agricultural graduates be given a chance to work as Block Development Officers.

Every advisory officer and local assistant at least in the arable and grassland advisory service in the Netherlands has to pass through a psychological test, which helps in judging the development of the testee, nay his human nature as a whole. But in India no such test is carried out for the selection of Block Development Officers and Village Level Workers. Most of the time only an interview is the method used for the selection of advisory personnel in India. Especially now the Community Development and National Extension Service in India are in their initial stages, the psychological test can prove to be a very effective tool in selecting the right type of persons. It is not only the academic record and the answers to questions put in the interview that make a person seem to be suitable for extension service, but also qualities like personality, leadership, tolerance, teaching and organising capacity, simplicity etc. which lead to form a good extension worker and the only way to test such qualities is by a psychological test.

In the Netherlands, the agricultural advisory service is not regarded as a service for providing employment for those who come merely for seeking employment. Whereas in India it is one of the agencies to absorb educated unemployed persons. Many persons join the Community Development and National Extension Service, as they need employment to make both ends meet and not because they are really interested in such a service.

The same is quite clear from the fact that as soon as a village level worker finds a job in an office or in a private concern, though for the same salary, he leaves the extension service. Taylor²⁾ confirms this by his remark that during his discussion with some Block Development Officers he came across examples where Village Level Workers were selected because they were educated unemployed, but did not meet the specified qualifications laid for their selection.

In the Netherlands professors of the State Agricultural University are consulted as an ordinary routine matter about the candidates to be appointed or selected as associate advisory officers, in addition to the psychological test and educational qualifications. But in India no such teaching staff is consulted. In the latter country the selection board is without any such professors and the only way to judge the capability of the candidate is through his university and school diplomas. However, the method of selection of Block Development Officers by the Union Public Service Commission is quite satisfactory and should be continued. In case of selection of the Village Le-

1) Persons who hold degrees in civil law and subjects like language, History, Geography etc.

2) Taylor, C.C. Content and Scopé of the Community Development. Kurukshetra, Vol. 5, No 4, 1956, p. 18.

vel Workers no such 'at the spot' enquiry is conducted as in the case of local assistants in the Netherlands. Though it is true that most of the Village Level Workers are not 'farm bred' as there are no high schools in the villages to contribute required qualifications for a village level workers yet for those who come from rural areas if such 'at the spot' enquiry is carried out better suited candidates can be selected.

Besides this, the Advisory Officers in the Netherlands are teaching partly in school and know well the students who may be suited for the advisory services. It is their recommendation which carries a lot of weight in the selection of a candidate as local assistant. But in India a Block Development Officer is not given a chance to express his opinion about the probable village level workers, though the latter may come from his area and he may know a great deal about them.

So far as the selection of Head Assistants and Extension Officers in the Netherlands and India respectively is concerned, the former are always promoted from the rank of local assistants after obtaining field experience for several years. But Extension Officers in India are directly selected from outside. Most of the time they do not have any field experience and come right from agricultural colleges after obtaining B. Sc. Ag. degree. In the Netherlands Head Assistants do not possess any university degree in agriculture. Their agricultural knowledge, obtained at the winter agricultural schools, backed up by field experience of several years is sufficient to meet the requirements of Head Assistants. In addition, opportunities are given to the Head Assistants to enlarge and deepen their knowledge by in-service training courses, supplying them periodicals and publications and by organising lectures and other courses.

CHAPTER VI

TRAINING OF AGRICULTURAL ADVISORY PERSONNEL IN THE NETHERLANDS AND INDIA

The training programme for advisory personnel may be classified into the following main categories:

- a. Pre-service training.
- b. Induction training.
- c. In-service training.

Before dealing with the above three categories of training of the advisory personnel, such as Advisory Officer, Head Assistant A, and Local Assistant in the Netherlands and corresponding personnel - Block Development Officer, Extension Supervisor and Village Level Worker - in India, it seems necessary to mention a few words regarding the importance of extension training.

As we say "extension is education", so to impart education extension workers must be good teachers. An extension organisation cannot certainly be created by a legislative act. It evolves its pattern of working round good teachers. The extension worker does not believe in compulsion and being a good teacher he persuades people to take up improvement, but only after they have seen for themselves and accepted what is good for them. Besides, it is a fundamental principle of extension work that the workers must conform their approaches to the culture of the people. In other words, methods and technique of approach should be of an alien nature but should be such as are familiar to the culture and tradition of the people in order to be readily acceptable to them. The workers to be successful and popular among village people must be trained to understand these people, their traditions and customs and to approach them as a friend to gain their confidence and to see their problems as they do. Moreover, extension is based on proved results of research. Therefore, the worker must be well conversant with the results of research which he has to put across to the people in different fields. So in view of the above extension principles and the role the extension workers play in the promotion of the agriculture of the country, these workers must have a sound background, social insight and a high professional efficiency in the field of agriculture.

The Netherlands

Training of Agricultural Advisory Officers

Pre-service Training: Dealing with Agricultural Advisory Officers or Associate Advisory Officers, the pre-service training is imparted to them at the State Agricultural University, Wageningen, the only agricultural university in the Netherlands. This establishment awards the degree of "Landbouwkundig Ingenieur" which is equivalent to M. Sc. Ag. in India. It is necessary for an applicant

to have this degree before he can be appointed as one of the advisers in the agricultural advisory services. The course at the university takes about 5 to 6 years. The first one year is spent in acquiring a general background (Propaedeutic study) in a wide range of subjects such as Botany, Physical and organic chemistry, Mathematics, Physics, Economics, Zoology and Agronomy.

After this study the various branches of study diverge and a student to be eligible for the award of bachelors diploma ("Candidaat") has to take a number of compulsory subjects for two and a quarter years. The main purpose of this study, is to give a student a wide agricultural education in the branch he has chosen, say, horticulture, tropical agriculture, land improvement, dairying etc. The following subjects are an example of such syllabus for Arable and Grassland farming¹⁾:

1. Meteorology.
2. Organic chemistry.
3. Geology.
4. Botany.
5. Genetics.
6. Farm Implements.
7. Arable and Grassland Farming.
8. Microbiology.
9. Entomology.
10. Phytopathology.
11. Agricultural Economics.
12. Zoology.
13. Agricultural Statistics.

When the student has obtained "candidaat" (equivalent to B. Sc. Ag.) at the end of two years, previously referred to, he spends a minimum of six-months at practical work which is mainly spent on agricultural farms, markets, in regional planning projects, etc.

After this practical training comes the final phase of agricultural studies at Wageningen. This phase consists of one and half to two years devoted to more specialised and independent study of four subjects. These four subjects comprise a major subject, two subjects from those studied for "Candidaat" study and one according to his choice, which he may have from subjects taught at the university. Finally the student is examined on the bases of his theoretical and practical work and if declared successful is awarded the degree of "Landbouwkundig Ingenieur".

Provision has also been made to teach Rural Sociology at the agricultural university. This subject seems to be a necessary one for those who choose agricultural advisory services for their profession.

But there are a very few or no such cases where students of Horticulture or Crop Husbandry take Rural Sociology as one of the minor subjects in "Ingenieurs" course. It is noticed that since June 1958 to September 1959, 94²⁾ students obtained "Landbouwkundig

1) Landbouwhogeschool-programme voor het Studie-jaar 1958-1959.

2) Information obtained from Landbouwhogeschool.

Ingenieur" diploma. Out of these 20 and 12 students had Crop Husbandry and Horticulture respectively as their subjects. However, none of the students of the said subjects chose Rural Sociology as one of the minor subjects, though some of them after the completion of their studies did join agricultural advisory services.

According to the Hofstee Committee¹⁾ it should be the responsibility of the department providing services to the "Landbouwkundig Ingenieurs" to give them "after university training" in aspects not taught in the university but considered necessary to their efficient working. So it rests with the Ministry of Agriculture and Fisheries to impart its employees of agricultural advisory services with training in sociological aspects, in addition to Methods of Extension etc. to make them suited to their jobs.

With the receiving of the degree "Landbouwkundig Ingenieur" there comes an end to the pre-service training or university education of probable agricultural advisory officers.

It is also interesting to note that emphasis during pre-service training is laid on "broad-based" training rather than on a higher degree of specialisation, as one has to take four subjects rather than only one in the "Landbouwkundig Ingenieur" course. In the author's opinion this sort of "broad-based" training is more suited for advisory officers who have to deal with aspects like farm management, soil fertility, arable crops, grassland problems, etc.

Induction training

Induction training may be described as any kind of organised training given to new advisory personnel either on entering the service or on being transferred to another positions in the service. In a way it helps to fill the gap between the theoretical training received at the university and its practical application in the field. It has been defined as the process by which new advisers acquire further knowledge, skill, attitude, and judgements which they need for extension work²⁾.

Leagans³⁾, suggested the following as the needs for induction training:

1. An understanding of problems of rural families.
2. An understanding of traditions, back-ground, objectives, policies and organisational extension service.
3. A knowledge as how to apply the broad principles of extension education and psychology to the new situations and develop skill in the use of extension technique.
4. How to analyse local problems, determine possible solutions and develop close co-operation with local people.
5. How to organise and stimulate local leadership for group action.

1) Landbouw Tijdschrift, April 1954, pp 208-230.

2) Report of the Southern Regional Workshop to study supervisory service, North Carolina, State College, 1946, p. 61.

3) Leagans, J.P. Extension Service Circular No. 417, April 1944, p. 23.

6. An understanding of the programme of other organisations and agencies at the country or local level for co-ordinated efforts to solve local problems.
7. Office Management.
8. Evaluation.

Bernard¹⁾, conducted a study of 163 newly appointed extension agents in U.S.A. to ascertain their needs for induction training. He mentioned that these agents should receive training in history and objectives of extension work, organisation of the Extension Service, development of extension programme, extension teaching methods, office procedure and management, etc.

In the Netherlands there is no such definite induction training programme for associate advisory officers. However, a common procedure, followed to acquaint the newly appointed associate advisory officer with the above mentioned aspects, is to place him with the advisory officer for some period. During this period he makes acquaintance with his coworkers, specialists, and other administrative staff. He comes to know the detail of working and administrative structure of the advisory service. He is also introduced to the representatives of the farmers' and farm labourers' organisations of the province concerned and other important local leaders. He is acquainted with his general duties, reports, files, programme of the province etc.

In-Service Training

In-service training is another important phase of training meant to improve the professional capacity of advisory officers in the work in which they are currently engaged. It seems to have become an imperative necessity due to the rapid and ever growing advance in knowledge as a result of research carried out in various agricultural fields. In-service training keeps the adviser in contact with up to date research. It is a sort of continuous process throughout the service period of an extension worker. Its aim is to keep the workers fully up to date with information on any change or emphasis necessitated by national or provincial policy and with research development in the subject-matter field. In-service training is justified for many reasons, in particular²⁾:

1. To keep advisers constantly up to-date and perfect in their technical and professional knowledge and thereby to strengthen their self-confidence and authority and increase the reputation of the advisory service among farmers.
2. To familiarise advisers with new advisory methods and aids.
3. To guide, stimulate, and encourage advisers, while at the same time developing team spirit and a sense of co-operation.
4. To induce them to take specific action calling for priority.
5. To enable advisers to specialise in certain fields.

1) Bernard, J. Induction Training of County Extension Agents, Extension Circular No. 421, October 1944.

2) The Agricultural Advisory Services in Europe & North America O.E.E.C., 1957, p. 103.

6. To co-ordinate advisory work at different levels by apportioning and balancing responsibilities.

Although it is a permanent responsibility of the heads of services to raise the technical and professional standard of advisers under them, they all realise the necessity of systematically organising advanced training for advisers already employed and of ensuring that this advanced training continues throughout. The means employed to this and for advisory officers in the Netherlands are as follows:

1. International Seminars:

Since 1953 International Seminars on Methods and Programme Planning in Agriculture and Home Economics Extension are being organised at the State Agricultural University, Wageningen in collaboration with the Food and Agricultural Organisation of the United Nations. In this course participants from many countries participate. The author also had the privilege of attending such a seminar in 1957. As the name indicates it has an international character, consequently not all advisory officers of the Netherlands Agricultural Advisory Services may participate. However, a significant number of advisers do participate every year. Experts such as on Extension Evaluation etc. are invited even from foreign countries, to deal with specific problems of their respective fields. Field demonstrations and trips to pilot areas in the Netherlands are organised. Techniques like, workshops and groups discussions are held after every lecture. The nucleus of the importance of the seminar is in the fact that it creates possibilities for the exchange of ideas among participants from various countries, especially with those from the Netherlands. It provides opportunity for professional improvement of advisers. It helps them furthermore in clarifying their doubts, strengthening their weak points, grasping new ideas and broadening their whole vision. The character of these seminars makes it worthwhile to give opportunities to all advisers to attend this seminar with in a course of every five years or so.

2. Provincial Conferences:

Such conferences are held at various intervals depending upon the need. Although the greater part of such a conference is devoted to discussion on finding solutions to problems faced by advisers in the province, still their value is in bringing advisers closer to each other. If necessity arises subject-matter specialists are invited to deal with special topics during the course of such conferences.

3. Supply of suitable literature:

Private study keeps the advisory officers in touch with the latest development in the field of agriculture. For this purpose the monthly *Landbouwvoorlichting* (Agriculture Extension) and the Netherlands Journal of Agricultural Science need special mention. Besides, books like *Methods of Agricultural Extension* and *Methods and Programme Planning in Rural Extension* are most praise-worthy publications not only for the agricultural advisers in the Netherlands but all over the world. In spite of the very busy working pro-

gramme, advisers are constantly advised by specialists to read some literature concerning their field work to keep well-informed about the current events and latest research in the agricultural field.

4. In-service training for agricultural university trained advisory officers is also given in the form of a special in-service training course organised by the Ministry of Agriculture and Fisheries. The duration of this course is about 40 days spread over two years. The main reason of spreading the course is that it is very difficult for advisory officers to spare forty days at a stretch without it telling upon the advisory or research work.

The first course of this type was started in 1957 and finished in October 1958. The whole course was divided into four parts i.e. from 6th to 14th May 1957, 10th to 21st September 1957, 6th to 15th May 1958 and 24th to 30th October 1958. It consisted of 50 lectures given by specialists in various subjects, professors of various universities and staff personnel of the Ministry of Agriculture and Fisheries.

In general the course consists of the following aspects: Philosophy, History and Organisation of Agricultural Advisory Services in the Netherlands; Programme Planning and Methods of Agricultural Extension; Working of Agricultural Co-operatives, Economical and Sociological aspects of agriculture in the Netherlands; Importance of local leaders in Agricultural Extension; Importance of various Methods of Agricultural Extension, Economic aspects of Agricultural Extension; The National Agricultural Policy and the international aspects; Agricultural Sociology and Sociography; Farm Economics; Structure of Agricultural Education, etc.

In addition, excursions are organised to various parts of the country to look at and study the agricultural problems on the spot.

Training of Local Assistants:

The training of local assistants, unlike that of Village Level Workers in India, begins before they are actually selected for the agricultural advisory service.

Pre-service Training:

The pre-service training of local assistants usually comprises the completion of courses at the secondary agricultural schools. There are two kinds of secondary agricultural schools, i.e. Middelbare Landbouwscholen¹⁾ and Hogere Landbouwscholen. At Hogere Landbouwscholen the subjects are taught on a secondary school level, while at Middelbare Landbouwscholen only farm technical subjects are taught on a secondary level and subjects of general education are more adopted to such requirements as are necessary for the proper understanding of the theoretically farm-technical lessons. However, most of the local assistants are trained at the "Middelbare Landbouw" schools. Accordingly only the training programme of such schools will be discussed.

During the course of my study I visited Middelbare Landbouw-

1) Formerly the Agriculture Winter Scholen.

schools at Utrecht, Hengelo, Veendam, Assen, Andelst, Zutphen and Groningen. The curriculum at these schools consists of two winter half-years, from the beginning of October to the beginning of April. In general there are 34 to 35 hourly lessons per week for half a year. During the intermediate summer season the students or trainees are employed on farms. The aim pursued with education at these schools is to teach future farmers or workers, agricultural theory and at the same time to extend their general knowledge¹⁾. However, the trainees are taught the essential fundamental knowledge of farming. The following table shows the subjects and the number of hours spent on each subject during the period of one winter week.

TABLE 17

	<u>First year</u>	<u>Second year</u>
Dutch language	1	2
Mathematics	2	1
Agricultural History	2	-
Economic Geography	2	-
Physical training	1	1
Botany	3	-
Zoology	1	-
Physics and Meteorology	2	1
Chemistry	3	1
Soil science	2	1
Crop cultivation	2	-
Fertilizers	-	3
Land reclamation	2	1
Agricultural Machinery	2	2
Plant Breeding	2	2
Grassland Farming	1	2
Plant Diseases	-	2
Pomology	1	1
Animal Husbandry	2	2
Anatomy and Physiology of Animals	2	2
Animal Nutrition	1	2
Dairying	1	1
Agricultural Economics	2	3
Book Keeping	1	1
Labour organisation and Management	-	1
Practicals ²⁾	2	2
 Total	 34	 34

To be admitted to the first year of such schools the prospective pupils should be 16 years of age. They must have completed the ordinary elementary school or may have a diploma of the primary

1) N. van Vliet, Director of the Division of Agricultural Education, Ministry of Agriculture and Fisheries, the Netherlands. "The Relation between extension and vocational Training in Agriculture" (a paper read in International Seminar on Programme Planning and Method of Agricultural and Home Economic Extension, 1955).

2) Practicals consist of training in chemistry, fertilizers, plant breeding, dairy, farm machines, technique of discussion, etc.

agricultural schools¹⁾. Most of the pupils come from agricultural families, but the sons of non-agriculturists can also be admitted if they have had one year of continuous agricultural practice on farms.

The completion of a training course in the "middelbare landbouw" schools marks the end of pre-service training of local assistants. As stated earlier, most of local assistants possess this sort of training, still a few of them have training in "Hogere Landbouw" schools. So it seems necessary to mention a few words about the training programme of the latter.

The curriculum of the "Hogere" schools extends over a period approximately $2\frac{1}{2}$ years and consists of about 34 to 35 hours spent on various subjects in each week through out the year.

A student entering such a school must hold one of the following qualifications:²⁾

- a. The leaving certificate of "ULO" school (a type of secondary school with a four years course) after attending a preliminary course in chemistry and mathematics.
- b. A signed statement from the Headmaster of the "HBS" (a secondary school with 5 years' course) that he has reached the fourth form of the school.
- c. A signed statement from the Rector of the "Gymnasium" (a secondary school with a 6 years' course with Latin and Greek included as subjects) that he has reached the fifth form of the school.

As far as practical training is considered the students completing training in "Hogere Landbouw" schools are said to possess agricultural knowledge comparable to the standard of teaching of agricultural colleges abroad (B. Sc. Ag.). However, there is no doubt that the standard of training in "Hogere" schools is definitely higher than that of "Middelbare" schools in the Netherlands.

Induction Training

As stated in the previous chapter nowadays local assistants are not selected directly from outside, but sub-local assistants are promoted to local assistants on the completion of induction training, on the result of a psychological test and the recommendation of the district advisory officer.

The induction training course of local assistants is called "Central course". The first central course was launched on 6th January 1958³⁾ at "Hoekelum" in Bennekom. The duration of the course is 24 weeks. It consists of the following subjects enumerated with the number of hours allotted to each of them:

1) The curriculum at elementary agricultural schools covers the 8th, 9th, 10th, and 11th school-years and the pupils in such schools attend $2\frac{1}{2}$ days, 1 day, 1 day and 1 day a week in respective years.

2) The Rijks Hogere Landbouwschool, Groningen, the Netherlands.

3) Landbouw Voorlichting No. 8, 1959, p. 461.

TABLE 18

<u>Subjects</u>	<u>No. of Hours</u>
1. Agricultural Extension	36
2. Farm Management	60
3. Labour Efficiency and Management	36
4. Soils and Fertilizers	36
5. Agricultural Implements	36
6. Plant Diseases	36
7. Arable Farming	36
8. Grassland Management	36
9. Cattle Feeding	36
10. Animal Husbandry	44
 Total	 392

The course is supplemented by excursions and field work amounting to approximately 158 hours, the total training hours being 550. It may be worthwhile to note that the following aspects are dealt with in Agricultural Extension:

The principles of Agricultural Extension; Sociological and Psychological aspects of Extension; Methods of Agricultural Extension; Use of spoken and written words; Organisation and Programme Planning and Agricultural Advisory Services in the Netherlands.

The whole course is carried out in terms of "Institutional training". However, it is very early to evaluate the benefits of this sort of induction course as the first batch of 27 trainees finished in December, 1958 and before this there has been no such course in the Netherlands.

Nevertheless, the deficiency of the induction training course seems to have been compensated by in-service training. Still it is needless to say that the finished trainees will be better conditioned and trained to carry out agricultural extension work.

Though before the start of a centralised induction training course there has been no such special induction training for local assistants, yet newly appointed local assistants were supposed to work with experienced workers. They were supposed to do the same work as the latter or were used to assist them in their work. This gave them opportunity to study field problems, extension programme at various levels, management and administration of their work etc. However, with the start of the induction training course (Central course) the trainees not only get experience by working with experienced local assistants, but also get advanced training in various agricultural aspects and agricultural extension in particular, before they are finally appointed as local assistants.

In-Service Training

It was in 1952 that an in-service training course was suggested for local assistants by Ir. P. A. Den Engelse, then the Inspector of the Agricultural Advisory Services.

Den Engelse¹⁾ states that the pre-service training received by

1) *Landbouw Voorlichting*, Aug. 1957, p. 438.

local assistants in agricultural schools shows much variation, as a few of them are trained in primary agricultural schools and others in secondary agricultural schools. In order to bring all the local assistants to a more or less uniform educational standard, the start of in-service training was emphasised. Besides, the training received in agricultural schools was also considered insufficient to meet the demand of agricultural extension work. It was, therefore, considered necessary for the education of better and right type of local assistants to start an inservice training course and to give subjects, which are partly dealt with in agricultural schools, special attention. Moreover, the collaboration of the Livestock and Dairy, Horticultural and Arable and Grassland services made it worthwhile to have in-service training dealing with several aspects in general for local assistants who form pivotal persons in the Netherlands.

Based on the above facts, the first in-service training course was started in 1954. Its special feature has been that it was a decentralised course organised in each of 26 districts of the country under the supervision of a District Agricultural Adviser. The co-ordination, required to form a uniform training programme in all districts, was obtained by appointing a Central Training Commission. The in-service training programme consisted of 450 lesson-hours, spread over a period of 3 years i.e. up to 1957. On an average it utilised 4 - 6 hours per week of the participants. The following table gives the programme and the number of lessons-hours allotted to each subject:

TABLE 19
Programme of In-service training course

Subjects	No. hours
I. Methods and Organisations of Agricultural Extension	40
II. Technical and Farm Management Aspects	
1. Arable farming	40
2. Grassland farming	60
3. Animal Nutrition	40
4. Farm Management	70
5. Plant Diseases	40
6. Farm Machines	40
7. Land Tenure	10
8. Soil Science	15
9. Fertilizers	15
10. Land Reclamation	15
11. Poultry	10
12. Animal Husbandry	10
13. Milk Management	15
14. Farm Buildings	10
15. Labour Efficiency and Management	20
Total	450

In addition to the above mentioned subjects covered during the in-service training course, a special course of short duration was given on the technique of "speech delivery".

As stated earlier, in 1958 a centralised induction training course was started for the newly appointed local assistants. For those who attended this induction training course and who were already in service as local assistants, a special type of in-service training course was started in 1959. The main features of this training course are that local assistants are called in batches of 25 to 30 to "Hoekelum" in Bennekom for the exchange of ideas among each other and to attend lectures given by subject matter specialists. Subjects such as Farm Management, Labour Efficiency, etc. are discussed and excursions for each group of local assistants are organised in the neighbourhood of the training centre. Assistants when coming to the training centre are supposed to choose among themselves their training participants, whom they want to visit their working area to show their work and to exchange working principles and methods. In a way this sort of course paves the way to bring together assistants of similar interest and the voluntary choosing of hosts and guests, for visits leads to the establishment of good relations with each other.

Up to the end of June, 1959, about 350 local assistants in 13 groups have been called to the training centre and the second part of the in-service training course i.e. exchange of visits is still under process.

It seems rather difficult to compare the two in-service training courses and to find superiority of one over the other. The in-service training course organised during 1954 - 1957 was decentralised, whereas that of 1959 is centralised. The former especially was to increase the technical-educational level of assistants to a uniform one whereas the latter was organised to bring assistants together with similar interest and for voluntary exchange of visits to study the problems right in their working area. However, the effectiveness of both in-service training courses is worth evaluating. In addition to the above mentioned in-service training course of local assistants, the working efficiency of the latter is also increased by meeting specialists at district level in monthly meetings where they have a chance to discuss their problems. They are also in close contact with specialist assistants who assist in their specific fields. Local assistants may also derive benefit from the monthly "Landbouwvoortlichting", the "Journal of Agricultural Science" etc.

Training of Head Assistant A, (Extension specialist)

As mentioned in the chapter of the Selection of Advisory Personnel in the Netherlands and India, a Head Assistant A is never taken directly from outside. He is always promoted from the rank of local assistant or specialist assistant. Accordingly there has been no special pre-service training for him. The pre-service training imparted to local assistants may be termed as pre-service training of Head Assistant A. Unlike an Extension Officer for Agriculture in India, a Head Assistant A is not supposed to be a university trained person. In the Netherlands a good pupil of a Secondary Agricultural School answers the requirement of Head Assistant A. Besides, it

takes about 5 to 10 years for a local assistant to be Head Assistant A. During the course of these years he is said to have gained enough experience to deal with problems of farm management, methods of agricultural extension, co-ordination of extension work, etc. During the induction training course of local assistants he has enough opportunity to enlarge his knowledge in various agricultural aspects. Lastly, the report of the Central Specialist Adviser of the branch in which he worked as local assistant before promotion, recommendation of the District Advisory Officer and the psychological test carried out at the time of promotion are effective enough to weed out the unsuitable persons to work as Head Assistant A. Hence there seems to be no need to have even induction training for Head Assistant A.

But the day he is appointed as Head Assistant A his responsibilities are varied and increased. Consequently there is a great need to improve his professional capacity in the work he is currently engaged on. Moreover, he is to be kept in contact with up to date research carried out in his field. For this purpose, very recently, a two years in-service training programme has been started by the Ministry of Agriculture and Fisheries, the Netherlands. The in-service programme especially deals with aspects such as Farm Management, Organisation and Programme Planning, Extension Methods, Principles, Philosophy and Evaluation, etc. The training programme is to be carried out three days a month. The first year of the programme deals only with farm management, the second year with other aspects. The programme under farm management consists of 125 lesson-hours and deals with Agricultural Economics, Bookkeeping, Agricultural Law, and practical and theoretical aspects of farm management.

But till recently the only way to keep them in contact with up to date research has been by meetings with specialists, supply of periodicals and publications, organisation of special lectures which aim at widening and deepening their knowledge.

It is also worthwhile to mention that in addition to Local Assistants and the Head Assistant A, there are other non-university trained personnel at district level, such as specialist assistants for farm management, farm implements, pest control, soils and manuring, etc. But their training programme has not been discussed here as there is no such personnel in corresponding agricultural advisory service in India, (N.E.S.).

However, pre-service training of specialist assistants is the same as that of local assistants, but as obvious, their induction training is quite different from that of the latter. Nevertheless, the induction training of local-assistants includes, in general, all aspects of induction training of specialist-assistants as shown in the graph on the following page.

It should be noticed that from 1st January 1956 it is necessary for newly appointed non-university trained persons in agricultural advisory services to have a diploma from the "Middelbare Landbouw" schools¹⁾. Also before a sub-local assistant can be appointed

1) Landbouw Voorlichting, No. 6, Aug. 1957, p. 439.

Magnitude of Induction Training of Assistant specialists

I	Soils & Fertilizers	Soils and fertilizers
II	Animal Husbandry	
III	Plant Diseases	Plant Diseases
IV	Cattle feeding	
V	Agricultural Implements	Agricultural Implements
VI	Arable farming	
VII	Grasslands	Grasslands
VIII	Labour Efficiency	
IX	Farm Management	Farm Management
X	Agricultural Extension	

as local assistant he has to work for at last two years in the field under the guidance of an experienced worker. The training course which he receives in the "Middelbare Landbouw" school is said to be sufficient to understand and deal with technical aspects of agricultural extension, such as use of fertilizers, management of grassland, control of plant diseases etc. But he finds difficulty in conveying the matter to the farmers, such as for instance in laying out a field demonstration to convince the farmers of improved practices. He may also be lacking knowledge to use the proper extension methods which will produce the desired result. Some methods are useful to attract attention (mass media); some are used to demonstrate new ways of doing things (method demonstration); and some are to be used in getting village farmers started on thinking and acting together (individual approach).

The success of the extension workers depends upon how effective they are in the use of several extension methods properly selected and skillfully used.

If optimum benefit of the training imparted in the "Middelbare Landbouw" schools is to be made, the training in agricultural extension methods in such schools should also be stressed. The latter will give an insight to the trainees into the availability of extension methods to approach the farmers, when and how a given method should be used and how much effectiveness is expected. If possible the history, organisation and working of the agricultural advisory services should also be included in the training programme of such schools to give trainees the picture of past and present agricultural advisory services.

India

Before dealing with the training of the Block Development Officer and other extension personnel in the National Extension Service in India, I should like to mention once more that a great number of Block Development Officers do not hold a university degree in agricultural science. Most of the persons who had been working as Revenue Officers before their appointment as Block Development Officers are non-agricultural university graduates. Nevertheless, it was not possible in the initial stage of the Community Development programme to seek so many experienced and agricultural trained persons to meet the requirement of a nationwide programme. Accordingly the persons who had been Revenue Officers, Social Workers and even those who took a keen part in the struggle for independence of the country, were appointed as Block Development Officers. Besides, as it is stated that the job of Block Development Officer is like that of a person who possesses an administrative and co-ordinating capacity for the programme, it was not considered necessary for him to be trained in agricultural science. But with the growing emphasis on the agricultural production of the country, at present it is necessary for a Block Development Officer to be trained in agricultural science at university level. States like U. P., Delhi, Bombay, Punjab, Rajasthan etc. have laid down strict rules that a Block Development Officer must be an agricultural graduate of a recognised university. Other states are also taking steps for the execution of the same rules.

Training of Block Development Officer

Pre-Service Training:

Pre-service training required for a person to be appointed as Block Development Officer is imparted in Agricultural Colleges affiliated with universities. In all there are nineteen universities (Appendix C) having agricultural education up to graduation or a higher standard. It is very difficult to deal with the patterns of agricultural education in all the universities within the limited scope of this sub-heading. It still seems, necessary, however, to deal with at least one university, Delhi University¹⁾, to throw a light on the pre-service training of Block Development Officers.

For a student to be eligible to study at the agricultural college, he must be in possession of the "Higher Secondary School Certificate"²⁾, with biology as one of the major subjects. At times students without biology are admitted in such colleges, but then they have to spend an additional year to acquire general knowledge in biology. The course at university level lasts for approximately six years before one can get the degree of Master of Science in Agriculture. (M. Sc. Ag.).

The first four years of this course, leading to the degree of B. Sc.

1) The author has the privilege of being a student of the Central College of Agriculture, New Delhi for the degree of B. Sc. (Hons.) Agriculture.

2) Which is equivalent to the Highschool certificate in the Netherlands.

Ag. are devoted to a general back ground in a wide range of subjects such as Crop-production, Botany, Chemistry, Mathematics, Physics, Entomology, Zoology, Plant Pathology, Veterinary, Animal Husbandry, Agricultural Engineering, Land surveying and Agricultural Extension. The course of Agricultural Extension, in general, consists of the following aspects¹⁾:

1. History of Rural Development in India.
2. Philosophy of Agricultural Extension.
3. Principles of Agricultural Extension.
4. Methods of Agricultural Extension and their application in the field.
5. Organisation and working of Community Projects and National Extension Service.
6. Programme Planning at Block, District and State Levels.

After a student has obtained the degree of B. Sc. Ag. he can be appointed in the National Extension Service, at any level higher than that of village level worker. In some of the extreme cases a person with a B. Sc. Ag. degree can be appointed as B. D. O. depending upon his personality, academic record, field experience, etc. But most of agricultural trained Block Development Officers possess the degree of M. Sc. Ag.

When a student has obtained B. Sc. Ag. he can join a higher or specialised course leading to M. Sc. Ag. The duration of this course is two years. However, all students with B. Sc. Ag. cannot be granted admission for M. Sc. Ag., as the seats in the latter course are limited and the number of students having the former degree is too large.

The course of the Master of Science degree is the final phase of the agricultural studies at university level. It leads to specialisation in various agricultural branches, such as Crop-production (Agronomy), Horticulture, Dairy and Animal Husbandry, etc. The course for Crop-production consists of the following subjects²⁾:

1. Crop-production.
2. Soils and Manures.
3. Farm Machinery.
4. Agricultural Economics.
5. Agricultural Statistics.
6. Cattle Management and Breeding.
7. Agrostology.
8. Agricultural Extension.

The second year of this course is devoted mainly to research work dealing with arable crops such as Wheat, Rice, Barley, Maize, Sugar Cane etc. When a student wants to specialise in Agricultural Extension, the two years' course consists of more or less the same subjects, with the exception that greater stress is laid on extension teaching, and the second year of the course is devoted for research work in agricultural extension, such as evaluation of extension pro-

1) Syllabus of Central College of Agriculture, New Delhi, 1957.

2) Syllabus of Post-Graduate Course (Equivalent to M. Sc. Ag.) given in Agronomy Division, Indian Agricultural Research Institute, New Delhi.

gramme, effectiveness of extension methods etc. Students working on agricultural extension problems also pay study visits to Extension Training Centres, Research Institutions, Community Development and National Extension Service Blocks etc.

From the above it is clear that every student studying or undergoing pre-service training at University level has to take up Agricultural Extension as one of the major Subjects for the degree of B. Sc. Ag. or M. Sc. Ag. In other words, Agricultural Extension is one of the compulsory subjects in all universities providing pre-service training in agriculture.

The end of agricultural education at the university leads to the end of pre-service training of probable Block Development Officers.

Induction Training

It is very rare that a person can be appointed as Block Development Officer soon after pre-service training. Before he can be taken up as a Block Development Officer he has to take induction training which lasts for about 6 weeks. The induction training courses are organised at various Block Development Officer Training Centres. Generally the tendency is to send the selected Block Development Officer to the nearest training centre. The following principles seem to have been observed in framing the syllabus for induction training¹⁾:

1. The training programme should be "job oriented".
2. The approach to training should be a "problem approach".
The syllabus for the 6 weeks training course is as follows:
 1. Understanding and development of objectives of Extension service which includes:
 - a. Need, aims, meaning and objectives of Community Development Programme.
 - b. Methods of approach to individual, group community and mass.
 - c. Techniques of conducting mass communication, such as film shows, fairs, exhibitions, etc.
 2. Programme planning which comprises of:
 - a. Planning and conducting surveys for ascertaining village needs.
 - b. Influencing people to establish a programme.
 - c. Building Block programmes.
 - d. Establishment of Block farmers organisations in the villages for preparation of programme.
 3. Programme Execution which deals with:
 - a. Formulation of working plans for each item of the block programme, such as agricultural production, co-operation, irrigation, etc.
 - b. Co-ordination of the National Extension Service with other organisations such as Sarvodaya, Sirineketan, Bharat Sewak Samaj, religious and charitable societies etc.

1) Compiled from the Syllabus for Training Course for Block Development Officers, Govt. of India, 1955.

- c. Peoples Participation and how to secure it.
- d. Working of institutions like Village Council (Panchayat), Sanitation Committee, Co-operative Societies, etc.

4. Administration which concerns:

- a. Principles of Administration and relation with other departments and their officers in the block.
- b. Budgeting of the Block.
- c. Conducting of Staff and Block Advisory Committee meetings.
- d. Maintenance and preparation of office records.

5. Evaluation technique and allied aspects.

In the words of Bhandari¹⁾ the objective of induction training is to mold the personality of the Block Development Officer and help him in developing a profound faith and conviction in the programme, so that he may in turn charge his coworkers with the same energy and may inform them and the village people with whom he is to work with the same profoundity of condition in the programme.

For information each training centre for Block Development Officers holds such courses every year, the number of trainees being 30 to 50 per centre.

In-service training

There is no special course for In-service training of Block Development Officers in India like that found for the advisory officers in the Netherlands. However, in the initial stage of the Community Development and National Extension Service programmes, some of the persons were appointed as Block Development Officers without giving them an induction training, mentioned previously. Later on such persons were called to the Block Development Officers Training Centres and given the 6 weeks induction training course. In a way, this has been in-service training for them. Besides, the Extension Supervisors who have proved to be sincere and earnest workers are recommended for the same 6 weeks course by the Development Commissioner of the State concerned. Later on these Extension Supervisors are recommended to be appointed as Block Development Officers. However, there are certain means which meet in part the requirement of in-service training such as:

1. Seminars:

At times inter-district and inter-state seminars are organised where the Block Development Officers get some opportunity to exchange their ideas with each other, discuss their problems and difficulties with specialists, get new ideas of working and organising development work, come to know advances in agricultural research etc. Such seminars give them confidence in their jobs and opportunities to come closer, to have team spirit and to co-operate with each other.

1) Kurukshetra, Vol. 4, No. 4, 1956, p. 40.

2. Monthly and Quarterly Meetings:

One day monthly meetings are held regularly at the District Headquarters in which all the Block Development Officers of the district, District Heads of Departments such as Agriculture, Co-operatives, Civil Engineering etc. and District Magistrates or Collectors participate. The participants exchange their views with each other on certain specific problems and try to find suitable solutions. Quarterly meetings are held from time to time in which Block Development Officers, Collectors, State Specialists and Development Commissioners of the state participate and discuss the progress of each block and their difficulties.

3. Supply of suitable literature:

Literature for example Kurukshetra, a monthly organ of the Ministry of Community Development, Indian Farming issued by the Indian Council of Agricultural Research, New Delhi, Evaluation Reports published by the Evaluation Organisation of the Ministry of Community Development, reports and findings of distinguished foreign visitors to India, such as M. L. Wilson, Carl Taylor, etc., weekly news papers like Gram Sevak and articles in daily news papers, form a very valuable source of transmitting information to Block Development Officers.

In addition to these means of in-service training there is a proposal to start a Central Institute of Study and Research for Community Development¹⁾ in Delhi. The main purpose of this institute will be to get Senior Officers for refresher training in the form of seminars and discussions based on their experience in the field.

Training of Village Level Workers

With the inception of the Community Development Programme in 1952, 34 extension training centres were started throughout the country to train the multi-purpose village level workers. The extension training centres were the first to go into operation, but soon it was realised that six months training in extension methods was inadequate, as most of the village level workers had neither any agricultural education nor did they come from rural areas. In order to give them an agricultural education and a rural outlook a preliminary course in basic agricultural subjects of at least a year's duration was considered to be essential. The Basic Agricultural Schools were started in 1954 to fulfil these needs²⁾.

However, it must be borne in mind that only after selection to the post of Village Level Worker, the candidates were sent to the training centres. Besides, the training given to Village Level Workers at Extension Training Centres and Basic Agricultural schools forms the "pre-service training", as it is only at this stage

1) Announcement by S.K. Dey, Minister of Community Development, Govt. of India, Kurukshetra, vol. 6, No. 1, 1954, p. 55.

(A similar institution, called Central Institute of Study and Research in Community Development is already in existence at Mussoorie).

2) Information obtained from Directorate of Extension Training, Ministry of Food and Agriculture, Govt. of India, New Delhi.

agricultural training is imparted to them. Before this training none of the Village Level Workers has attended an agricultural school, though some of them might have been working on their own agricultural farms.

Pre-Service Training

The pre-service training of Village Level Workers consists of two aspects, one dealing with agricultural education and the other with principles, philosophy, methods of extension, etc.

The required educational qualification for a candidate to be selected and admitted to a Basic Agricultural School is Highschool Examination, as stated in the previous chapter. But in some places like U. P. a certificate of three months social service, after Middle School Examination was also considered an adequate qualification for recruitment as Village Level Worker.

The duration of pre-service training in basic agricultural schools and extension training centres consisted of 18 months in 1954. The Indian council of Agricultural Research was in charge of Extension training and it prepared a draft syllabus for the same. The syllabus for the first 12 months at the Basic Agricultural School consisted of the following subjects:

TABLE 20

<u>Subjects</u>	<u>Periods of hours</u>
1. Agriculture (crop-production)	1390
2. Animal Husbandry, Dairy and Veterinary	350
3. Horticulture and Vegetable farming	200
4. Plant protection	100
5. Agricultural Engineering	60
6. Climatology	10
7. General Extension	10
Total	<u>2120</u> ¹⁾

Thus the total number of periods available for training was 2120 in all, including theory and practical periods.

After the completion of this 12 months training, an examination was held and the successful candidates were sent for a 6 months training at the Extension Training Centres, which may be situated separately or attached to Basic Agricultural Schools. During the period of 6 months, there were only 150 actual working days, the remaining being holidays. The subjects taught at the training centre were allotted to the periods as given on the next page.

The trainees admitted to the Extension Training Centres were post students of Basic Agricultural Schools of the National Extension Service. Still it was regarded advisable to give them a short refresher course in the subject of Agriculture at the Extension Centre also.

1) Which were spread over 265 days, the remaining 100 days were holidays and vacations. (1 month vacation, 3 days examination, 52 sundays and 15 closed holidays).

TABLE 21

<u>Subjects</u>	<u>Period for practicals</u>	<u>Period for theory</u>	<u>Total</u>
1. Agriculture (Animal Husbandry, Horticulture, Dairying, etc.)	100	50	150
2. Rural Extension Service	250	150	400
3. Health Hygiene and Sanitation	140	60	200
4. Social Science and Adult Education	140	50	190
5. Village Panchayats and Co-operatives	150	35	185
6. Village Industries	50	25	75

It seems worthwhile to give a detailed account of the aspects covered under Rural Extension and Social Science, the latter being the background of the former. Rural Extension consists of:

1. Extension- Its meaning and significance, principles and philosophy.
2. Extension in other countries. The Qualities of the extension worker and his duties.
3. Extension Methods.
4. Rural India and its problems- Ideals and objectives such as socialistic pattern of society.
5. Extension in India in Pre-Independence days, and Post Independence days.

The content of Social Education consists of:

1. Its aim, meaning and content, the role of the Village Level Worker in the Social Education Programme.
2. Organisation of leisure time activities, such as "melas" (fairs), dramas, exhibits, etc.
3. Youth club activities.

With the growing experience in training centres and training given, it became apparent that in order to improve the quality of extension training, the curriculum followed at the training centres had to be materially modified and made job-related. Moreover, by keeping Basic Agricultural Schools and Extension Training Centres separate from each other there was a multiplication of teaching staff. At the same time there was a repetition of aspects of agricultural education in the centre, though they were covered in the schools too. The question of integration of Basic Agricultural Schools and Extension Training Centres came up for discussion at the Fourth Extension Training Conference held at Mt. Abu (Rajasthan)¹⁾ during May-June 1957. On the recommendation of the conference Regional Committees were set up to draw up model syllabi for integrated institutions. A Central Committee too was formed to draw a model syllabus on receipt of the recommendations of the various Regional Committees.

The syllabus thus prepared for the training of Village Level Workers in an "integrated course" of Basic Agriculture and Extension came into force in July 1958. It intends to impart to extension work-

1) Proceeding of Annual Conference on Community Development at Mount Abu, May 1958.

ers in theory and practice the basic knowledge of certain important subjects related to the rural development work. The duration of the course has been raised from 18 to 24 months. The syllabus consists of three stages, i. e. the "class-room study", "practical training at the campus" and "training in the field". These constitute what may be termed as institutional training, lasting 21 months. It forms the first part of the syllabus. The second part is "job training" in which trainees are required to work almost independently, so that they may gain self-confidence in field work before they leave the training centre. During "job-training" the trainees are expected to carry out a minimum programme, the nature and scope of which depends mainly on the season in which this is to be done.

TABLE 22

The integrated course for Village Level Workers consists of the following subjects:

<u>Subjects</u>	<u>Hours for theory and practice</u>
1. Agriculture (soil management and Agricultural Engineering)	330
2. Agriculture (crop-production)	330
3. Horticulture and plant protection	450
4. Animal Husbandry, Dairying and Veterinary Science	410
5. Co-operation)	410
6. Panchayats)	290
7. Public Health	220
8. Social Education	170
9. Extension Programme planning	100
10. Minor Engineering Work	200
11. Rural Industries	

The total number of working days available for theoretical and practical instruction in the institution will be 370 days the rest being sundays, cacations etc.

Ensminger¹⁾ has stressed the need of social Education in the training programme of village level workers in the words that it forms the primary necessity of extension workers. The same views have been expressed by several distinguished persons who visited India to study the Community Development Programme, such as M. C. Wilson, Carl Taylor, Albert Mayer, etc. The training in social education deals with the followings items:

1. Elementary Rural Sociology and Psychology: common traditions and superstitions and how to deal with them, attitude towards new innovations and innovators; local leadership and the importance of approaching people through their accepted leaders; class and caste structure as it affects the adoption of new practices; and family relations and kinship.
2. Methods of approaching the individual, mass and group.
3. Media of approach:
 - a. General, such as method and result demonstration, lectures, sight seeing, exhibitions, etc.

1) Guide to Community Development, Publication Division, Govt. of India, 1957, p. 83.

- b. Cultural, such as shadow plays, dramas, folksongs, one act plays, etc.
- c. Audio-Visual aids, such as films, slides, radio, posters, flannel graphs, gramophone, etc.
- 4. Organisation of youth clubs, community centres, libraries, etc.
- 5. Mobilisation of Village institutions.
- 6. Basic and Adult Education, their concept and importance.

If we throw a light on the training programme that was followed before the commencement of the "Integrated" training programme, one can easily make out that there is increased stress on Social Education in the latter. However, it is not possible to visualise the benefit of this increased stress on Social Education in the training programme of Village Level Workers, as the first batch of such workers has just finished it in the summer of 1960. Still it goes without saying that finished trainees will be better conditioned and suited to the village social atmosphere and to change the outlook of village people.

Induction Training Course

When aspects, such as agricultural science, social education, animal husbandry, co-operation etc. have been dealt with in pre-service training, there will be no need to repeat them again in induction training programme. However, there has been a need of having induction training for Village Level Workers before the start of an "Integrated training course" and the only idea of having such a training was to make them understand the subjects such as the extension programme at local level, office management, administrative structure etc. For this purpose the newly pre-service trained Village Level Worker was to work in the field for some time with an experienced worker. He was supposed to carry out a slightly lighter task than the latter. But there was no special training time for this purpose. It was left to the discretion of the Block Development Officer, in whose block the newly trained worker was to work to judge his ability and capacity to work in villages. If the former considered it necessary to give this sort of induction training, the latter was asked to do so, otherwise not.

But with the start of "Integrated training" from July 1958, there will be no need to give to trainees this sort of induction training. As stated earlier the last three months of pre-service training will be "job-training" during which trainees will carry out a minimum programme in field.

The work which the trainees should be required to do during the period of "job-training" will thereafter be followed by the trained village level workers after the trainees leave the site. In other words both pre-service and induction trainings have been included in an "integrated service" training course.

In-service training

There are very limited opportunities for in-service training of Village Level Workers. The only means to keep them up to date

and perfect in their professional knowledge and to familiarise them with new extension methods and aids, are fortnightly and monthly meetings. At times visits by the supervisory staff and technical experts are also of help in imparting in-service training. But if one happens to attend such fortnightly and monthly meetings, comprising the whole block staff, he will find that they are mostly routine type meetings. The Block Development Officer and subject specialists use these meetings to issue fresh directions and instructions to Village Level Workers. Besides, the latter do not feel free to raise issues and express their opinions like the senior personnel. The visits of the supervisory staff is more in the nature of an inspection than of an education.

In addition to the above means of having an in-service training, literature too is one of the major tools to serve the same purpose. Different Ministries, such as Ministry of Food and Agriculture, Ministry of Community Development and Co-operation, Ministry of Industrial and Scientific Research, at the centre and state level bring out useful literature based on pooled knowledge and experience gathered in different parts of the country. Most of the time copies of such literature are sent to all the blocks in a state, from where they are passed on to village level workers to go through them. At times important articles are also read and explained by specialists in fortnightly and monthly meetings; for example, some of the publications brought out by the Ministry of Food and Agriculture are Organic Manures, Green Manuring, Double Cropping, Dry Farming, etc.

Training of Extension Supervisor or Extension Officer for Agriculture.

In general the main task of an Extension Officer for Agriculture is to look after the development of agriculture, specially crop-production within the jurisdiction of the National Extension Service or the Community Development Block. He advises the village level worker of the block regarding the introduction of improved seeds, implements, laying out of agricultural demonstrations etc. In short he acts as Extension Specialist for Village Level Workers.

As we see here and have seen in the last chapter the duties of an Extension Officer for Agriculture are mainly concerned with crop-production; to be capable of rendering advice in this aspect he has to be well trained in agriculture as a whole. Since the minimum educational qualification for Extension Officer for Agriculture is B. Sc. Ag. of a recognised Indian or foreign university, the person in possession of this qualification is considered to be well trained for his task.

The training and education received by students upto the standard of B. Sc. Ag. in a university forms the "pre-service training" of Extension Officers for Agriculture. However, some of the officers possess the degree of M. Sc. Ag. which is considered as an additional qualification. The duration and other facts of pre-service training or university education have been stated already while dealing with

pre-service training of Block Development Officers.

During 1952 Extension Wings were attached to five Agricultural Colleges with financial assistance from the Ford Foundation. These colleges are situated at Ludhiana (Punjab), Allahabad (U.P.), Nagpur (M.P.), Akola (Bombay) and Hyderabad. The main purpose of starting Extension Wings in these colleges, in the words of Douglas Ensminger¹⁾ is that introduction of such wings will result in reorienting the agricultural colleges and bring them closer to village life. He further added that it would also attune the research programmes of the colleges to the needs and problems of the farmer. The first batch of graduates qualified during 1957.

The Extension Wings in such colleges consist of two parts:²⁾

a. A teaching section.

b. A village improvement project.

The teaching section consists of the teaching staff, who deals with giving theoretical knowledge to students in subjects, such as Methods of Agricultural Extension, philosophy and principles of Extension, history of rural development etc.

The development project which consists of a College Development Block of 50 villages serves as an Extension Laboratory for college students where they learn as well as practice the Extension methods and techniques taught to them.

In the words of a professor of Agricultural Extension at the Agricultural College, Nagpur³⁾ the main object of this sort of Extension training is to provide scientific and supervised field training in Extension Methods and techniques to undergraduate students, to better them in discharging their duties as an Agricultural Extension Officer more efficiently and with better understanding, and in particular to be able to serve in the National Extension Service or Community Development Blocks.

There are two main differences in the Extension training provided in Colleges with Extension Wings and those without such wings:

1. In colleges without an Extension Wing there is greater stress on "subject matter training" (the knowledge of subjects which have to be passed on to the cultivators) as compared with "extension technique training" (how to pass on the matter to the cultivators). But the reverse is the case in colleges with an Extension Wing. As for example, in the latter colleges during method demonstration (composting) students are not only told the importance of compost as manure but they are also taught how a successful demonstration can be staged in the villages as a teaching method to convince the cultivators of its utility. The emphasis is laid on demonstration techniques.
2. There is also greater emphasis, in Colleges with an Extension Wing, on actual physical work by trainees. It involves the teach-

1) Summary Record of Conference of Teachers of Extension Methods and Principals of Agricultural Colleges in India, held at New Delhi, 1957, p. 7.

2) Information obtained from Agricultural College, Nagpur.

3) Summary Record of Conference of Teachers of Extension Methods and Principals of Agricultural Colleges in India, 1957, p. 15.

ings of the dignity of labour and prepares the mind of a student to be able to do physical work to gain the confidence of villagers.

Induction Training

In the early years of the start of the Community Development Programme the importance of induction training to Extension Officers for Agriculture was overlooked. Keeping his job into consideration he was more or less a scientific person at Block level to guide and advise Village Level Workers concerning agricultural problems. But soon after it was realised that the training given to them in the agricultural colleges was not adequate to meet the practical knowledge required to deal with agriculture as a whole, especially it seemed that the agricultural graduates did not have enough practical work in the field. Moreover, it is not only agricultural knowledge that is required to work in an extension service, but also the "know-how" to pass on this knowledge to the farmers. Besides, the theoretical and practical courses covered in agricultural colleges were also different from each other. In some colleges the B. Sc. Ag. degree course consists of three years duration such as in the Central College of Agriculture, and in some of four years. In order to maintain a more or less equal standard of theoretical and practical knowledge and to import "know-how" among the graduates of various agricultural colleges, the induction course was started. However, the practice has been to appoint the persons first as Extension officers to fill the vacancies caused by the starting of new blocks and later on, when they have some experience in the field, they are sent to Extension Training Centres. The duration of the induction training course is three months. The objective, in a nut shell, of this training is to give Extension Officer for agriculture information and knowledge required to condition his aptitude for a more effective performance of his duties.

This induction training consisted of the following topics especially dealing with extension:

- a. Extension- its meaning, significance, principles and philosophy.
- b. Acquaintance with the broad phases of extension work attempted in India by:
 1. Sarvodaya.
 2. Siriniketan.
 3. Firka Development Scheme of Madras.
 4. Martandom.
 5. Other agencies.
- c. Brief outline of extension work being done in other countries.
- d. Peoples' participation and its importance.
- e. Agencies in Block, such as Panchayats, Municipalities, Local boards etc.
- f. Methods of Agricultural Extension and their effective use - Individual, Group and Mass.
- g. Principles of office management.

- h. Structure of Community Development and National Extension Service Blocks - Staff provision and role of each.
- i. Topics of special interest, such as training in the use of Japanese method of paddy cultivation and construction of soil conservation bunds etc.
- j. Agricultural Legislation - Tenancy Acts, Consolidation of Land Holding, the Abolition of Zamindari.
- k. Schemes for multiplication of pedigree seeds, distribution of fertilizers and agricultural implements.

After the training the trainees are sent back to their respective blocks.

In Service Training

Similar to the case of Village Level Workers, there is no specific in-service training for Extension Officers for Agriculture. The means to keep them on level in their agricultural knowledge are meetings with specialists at District Level, such as the District Agriculture Officer, District Plant Protection Officer etc. Here the agricultural officers get opportunities to discuss their problems and difficulties with specialists, get new ideas of working and come to know advances in agricultural research. Such meetings also give them faith in their working and opportunities to come closer to specialists.

Supply of literature is also another important means of imparting in-service training. However, the use of the literature is left at the discretion of the officer concerned. At times special articles are recommended by specialists to go through, but such cases are very rare. The examples of literature have already been given under in-service training of Block Development Officers and Village Level Workers.

Weak Points in the Training of Agricultural Advisory Personnel in India

The Community Development Programme and its agency the National Extension Service in India are one of the most gigantically planned programmes and governmentally administered organisations of their kind in the history of the world. The country has planned and is trying and experiencing with something which has never been tried and experienced before in countries of the type of India the most significant being that of channeling technical and material assistance from all departments and agencies of Government down to the village through a co-ordinated scheme of Extension Administration. In fact the Extension Service emerged at a time when India was seeking effective ways of increasing the food production to wipe out its big food deficit. In such a tiresome situation one can understand the emergent nature of the training of its personnel. But now it has been decided finally by the Government to have the National Extension Service as a permanent set up for all round development of about 55800 villages. With this decision the following weak points have to be rectified if training of agricultural extension personnel

is to be such that it meets the requirement of their respective jobs:

1. The main purpose of undergraduate studies leading to the degree of B. Sc. Ag. is to provide a general background in agriculture on the one hand and extension orientation on the other hand. But this sort of education does not seem to be of much use for extension personnel unless introductory courses in Rural Sociology are given along with it. However, as seen already, there are only five of such colleges in India which have extension wings and provide courses in Rural Sociology. According to Dr. Ensminger, the Chief Consultant of the Ford Foundation on Community Development in India, the essential requirements of agricultural teaching at agricultural colleges will be incomplete without introduction of Rural Sociology and Extension Methods in their curriculum.
2. Out of 30 colleges of agriculture in the country some 20 have commenced teaching on the subject of Agricultural Extension. But out of these 20 only five colleges have got Extension wings providing both subject matter training and extension technique training; the rest only deal with subject matter training. The persons who finish studies at such colleges dealing with the latter type of training, may not have any knowledge as how to pass on the matter to the cultivators. This shows the lack of practical education in the field of Agricultural Extension. The Prime Minister, in his broadcast to extension personnel at the inauguration of the Project Officers Training Camp at Nilokheri emphasised the need and importance of practical training in the following words¹⁾.

"I feel that one, who does not work with his own hands and does not think of such work as dignified is a mere idler. In my honest opinion every Indian student, whether he is at school or college, must do a sufficient amount of manual labour in fields".

3. The induction training period of Block Development Officers is of 6 weeks' duration²⁾. About one week is devoted to a study tour to see development work and another week to village practices in adjoining centres while at the head quarters there are discussions and lectures, organised on special subjects. The period of training seems to be too short. All the trainees are officers who have seen 5 to 10 years of service, probably in Revenue Departments. Many of them have a feeling that they are being shunted into a new and upstart department with no power and little prestige, but always under the public gaze. However, the longer stay in a training centre may help to create a favourable atmosphere for new ideas and urges to flower. A mere extension of the period of training may not only start but deepen the new process of learning. It is even worthwhile requesting some distinguished persons not only to visit but to live for at least a week with these officer trainees. Such a close contact will act as a leaven of the lump and may dissolve old ways of thought and feeling while precipitating new ones.

1) Jawaharlal Nehru on Community Development, 1957, p. 15.

2) N.R. Malkhani M.P. Kurukshetra, vol. 4, No. 12, 1956, p. 17.

4. After the candidates are selected for the Block Development Officers job, they are not sent directly to Block Development Officers Training Centres, but they are sent at once to the working Blocks. The main purpose of this induction training is finally to prepare the Block Development Officers to take up their responsibility as leaders of the Block staff. But at times they are sent to working areas before they are prepared to take up their responsibility. In such cases the work of the Block is bound to suffer.
5. There is no special in-service training course for Block Development Officers. The rapidly changing conditions, new findings in agriculture and other sciences, new extension devices, problems of Block Development Officers on the job, etc. all demand in-service training, which should be carefully directed for the continuous improvement of Block Development Officers. The present policy of holding one day monthly meetings at District level in which the Collector and all Block Development Officers of the district participate seems to have proved very useful to all concerned. But the time spent for such meetings or conferences is very short, usually one to two hours. In my opinion at least a full day should be spent for this purpose. If possible such monthly meetings should be held in each Block by rotation instead of district headquarters as this will give an opportunity to the participants to have a birds eye view of progress of the Block concerned.
6. The syllabus of pre-service training of Village Level Workers at Basic Agricultural Schools, as discussed earlier, has been quite comprehensive considering the limited time of one year. But it seems that the trainees were not getting much opportunity for practical training in the villages. Since the "Integrated Training Course" of 2 years' duration has come into being it is considered that the above defect of the lack of practical training in the villages will be overcome. Practical training will be imparted during the last three months of the "job-training" period in which trainees will be required to carry out a minimum programme in the field.
7. There is no provision for in-service training of village level workers, except meetings with the supervisory staff, subject matter specialists and literature. In such meetings there is more a tendency to inspection than to training of village level workers by the supervisory staff. In fact the basic function of supervision is education and not finding fault and issuing instructions. Besides, the discussions in such meetings are conducted in such a way that junior members do not feel at ease and do not tell freely and fully of their experiences.
8. There is no provision of bringing village level workers of different Blocks together, so that they can exchange their ideas and may discuss problems of their own interests. But it can be made possible if half yearly or yearly visits of village level-workers of one Block may be organised to other Blocks. This will help in the creation of a team spirit and broadening of the advisory capacity.

9. Although different ministries produce a lot of useful literature most of the time it is not received in time and if it does, the Block staff generally does not give any attention to it. The latter may be true in case of village level workers who seem to have been overburdened with multiple duties and responsibilities. Accordingly no proper use of the literature is made. Moreover, a Village Level Worker, most of the time, stays in his village headquarter and the literature is generally kept at Block headquarter. If the literature is disseminated to the village headquarters and circulated periodically, then perhaps, the interested village level workers may try to go through it.
10. Similarly there is no specific in-service training course for Extension Supervisors or Officers for agriculture. Also there is no close relation between the research institutions and extension officers. The only possibility to know advanced agricultural research is by means of the District Specialists who rarely meet the extension officer. If refresher courses can be started in particular subject matters for a period of two weeks or so, the extension officers will be in closer touch with recent agricultural research. These courses can be started at various agricultural research institutions in the state concerned.

The Netherlands and India

Starting with pre-service training of Agricultural Advisory Officers and Block Development Officers in the Netherlands and India respectively it is necessary for the former to have pre-service training in an agricultural university. But in India only very recently some of the states, such as Delhi, Rajasthan, Himachal Pradesh, Uttar Pradesh etc. have started laying stress on pre-service training of Block Development Officers in such universities. Some of the Block Development Officers who are working at present in the National Extension Service never had any pre-service training in agricultural universities. Besides in India the minimum educational requirement at present is B. Sc. (Ag) (equivalent to "candidaat") and not M. Sc. Ag. (equivalent to "Landbouwkundig Ingenieur") as is the case in the Netherlands. It means that in India a person with diploma of B. Sc. Ag. can be taken up as one having enough pre-service training to serve as Block Development Officer but one must possess "Landbouwkundig Ingenieur" to be advisory officer in the agricultural advisory services in the Netherlands.

However, in India preference is always given to those to work as Block Development Officers who possess a M. Sc. Ag. diploma to a B. Sc. Ag. of an agricultural university. Even if it is so, most of the Block Development officers lack practical training in the field. It is necessary in the Netherlands to have at least 6 months (generally 9 months or more) practical or field work in addition to other requirements, to qualify "Landbouwkundig Ingenieur" diploma of the State Agricultural University, Wageningen. In most of the agricultural universities¹⁾ in India there is no such provision to impart such a long and wide field training to students.

1) Institutions like Indian Agricultural Research Institute, New Delhi and Agricultural college Sabore, Bihar do provide one year practical training to students of post-graduate course in Agronomy and Agricultural Extension.

In the Netherlands, during university education emphasis is laid on "broad-based" training rather than on a higher degree of specialisation. It is evident from the fact that one has to take four subjects in the post-graduate course. Whereas in India there is a tendency on the whole towards specialisation in M. Sc. Ag. courses. Looking into scope and aspects of agricultural extension "broad-based" education is more suited to extension workers than that of a specialised one.

Nowadays in India in most of the agricultural universities Agricultural Extension not only forms one of the major subjects of the curriculum of B. Sc. Ag. but also forms itself a subject for M. Sc. Ag. whereas in the Netherlands this is not so. In the Netherlands only those who take Rural Sociology as one of the four subjects for post-graduate studies take courses in agricultural extension. The idea of making Agricultural Extension as one of the major subjects in Indian agricultural universities is to meet the vast and ever increasing demand of agricultural graduates and postgraduates of the National Extension Service for whom training in agricultural extension is indispensable.

In India there is an induction training course for Block Development officers, whereas there is no such a course in the Netherlands. The need of such a training course in India is based on the fact that the personality of the Block Development Officers has to be molded to create in them faith and conviction in the National Extension Service programme, to imbibe them with team spirit to change their bureaucratic attitude (a quality of Revenue Officers) to dissolve the boss-subordinate attitude and finally to equip them with the extension methods and technique to approach farmers. The above changes in the personality of the Block Development Officers are necessary to make them successful extension workers. But in the Netherlands I noticed that there exists profound faith in the programme and working of agricultural advisory services, which may be because of the long and successful working of such services in the country. Also the advisory officers and subordinates work in team spirit, without having any "boss-subordinate" attitude. The deficiency in pre-service training of advisory officers in the Netherlands in extension methods and techniques seems to be compensated during the period when such officers work as associate advisory officers for some time under the guidance of an experienced officer. The latter also help them to know the details of the work and the administrative structure of agricultural advisory services. Consequently there seems to be no need of having a special course of induction training for advisory officers in the Netherlands.

As far as the in-service training course for Block Development officers is concerned there is no such course in India as specially organised for advisory officers in the Netherlands. The opportunities which meet in part the requirement of in-service training of Block Development Officers are inter-district seminars, monthly and quarterly meetings, literature etc. In my opinion the above means are inadequate to bring the Block Development Officers in contact with current research carried out in the field of extension,

agriculture and allied aspects. Whatever the quality of an induction training course may be, the necessity of the in-service training course can not be overlooked.

While comparing the training of village level workers and local assistants in India, and the Netherlands respectively, it seems necessary to mention that there are no primary¹⁾ and secondary²⁾ agricultural schools in the former country as found in the latter. In India with the start of the Community Development Programme, Basic Agricultural Schools have been established specially to give pre-service training to selected village level workers. Fundamentally the Basic Agricultural Schools in India are different from the secondary agricultural schools in the Netherlands, the latter being open to everyone who feels interested in agricultural education. Most of the pupils of agricultural schools in the Netherlands come from cultivator-families and they can make use of the training received in these schools on their own farms during the Summer season when such schools are closed. This working on their own farms adds to their practical experience during school education. Whereas in India only a few come from cultivator-families. Besides, there are no ample high schools in rural areas, the leaving certificate of which is a necessary requirement for the selection as village level worker. The practical experience of pupils in secondary schools in the Netherlands seems to be greater than that of the pupils in basic agricultural schools in India. Not only that, but most of the pupils of the secondary agricultural schools in the Netherlands have attended primary agricultural schools which form the basis of the agricultural training. But in India hardly any has such a training or experience before coming to the basic agricultural schools.

On the whole it seems that the training imparted to village level workers in basic agricultural schools is inferior to that given to local assistants in secondary schools in the Netherlands. However, one must not overlook the fact that the training programme of such agricultural schools is based on the general agricultural knowledge of farmers in the two countries. Almost all the farmers in the Netherlands are trained in either primary or secondary agricultural schools. Whereas in India farmers do not get an opportunity to attend such schools. What at present an India farmer needs to improve his agriculture, is advice to select good seed, use fertilizers, make compost pits, use green manures etc. To train persons for this sort of education, the curriculum of basic agricultural schools seem to be well suited. Moreover the "integrated training" course of basic agriculture and extension started in July 1958 imparts enough basic knowledge in agriculture and extension to village level workers to meet the requirements of the National Extension Service programme.

It must be noted that the pre-service training programme of village level workers in India includes training in extension techniques and methods and Rural Sociology, the basis of agricultural extension

1) Lagere Landbouwschool.

2) Middelbare Landbouwschool.

service. Whereas the pre-service training of local assistants in the Netherlands is devoid of such training.

With the start of an "integrated training" course in India for village level workers there seems to be no need of having a separate induction training programme for them, as all the requirements of the latter are met by the former. But in the Netherlands when sub-local assistants have acquired enough experience in fieldwork they are sent for an induction training course of local assistants to equip them with knowledge in extension methods, programme planning, and advanced training in agricultural aspects. However, if the training in extension techniques and methods and rural sociology should be included in pre-service training (in the Middelbare Landbouwschools), the efficiency of sub-local assistants could be considerably increased.

There are very limited opportunities for in-service training to village level workers, the only means being fortnightly and monthly meetings, visits by technical experts, literature, etc. But in the Netherlands in addition to the above mentioned means, special in-service training exists to enhance the subject matter knowledge of local assistants, to exchange their field experience etc.

The pre-service training of Extension Supervisors for Agriculture in India comprises the education at the agricultural university, at least upto the graduate level (B. Sc. Ag.) whereas that of Head Assistant A in the Netherlands consists of education at secondary agricultural schools and not at university level. Secondary agricultural school education coupled with 5 to 10 years field experience is said to be enough to meet the requirements of a Head Assistant A. But for the corresponding person in India a graduate diploma of an agricultural university is necessary.

The author is of the opinion that the persons with B. Sc. Ag. diploma in India lack practical training in agriculture. Accordingly when appointed as extension supervisors soon after graduation, they find themselves in a state of confusion in putting their theoretical knowledge into practice. But in case of Head Assistants A, the field experience of 5 to 10 years gives them enough confidence and faith to utilise their theoretical knowledge, which has been constantly increased due to their in-service training as local assistants or specialist assistants. The pre-service training in secondary schools, in-service training in the period of local assistantship and field experience of 5 to 10 years will definitely lead to a better quality of extension officers in comparision with those only having a theoretical pre-service training at university level as is the case with Extension Supervisors in India.

But the agricultural colleges with extension wings in India, provide both theoretical and practical training and graduates of such colleges will form better extension workers than those coming from colleges without such wings.

There is also an induction training course for extension supervisors in India to increase specially their practical working capacity; to imbibe them with extension technique or in a way to mold their personality to be suited to the National Extension Service.

Whereas there is no such induction training course for Head Assistants A in the Netherlands. But to improve the latters professional capacity there is in-service training, which is non-existent in India in case of extension supervisors.

In a nut shell it can be stated that the importance of the in-service training course is well weighed and realised in the Netherlands, whereas it is more or less under-rated in India.

CHAPTER VII

IMPROVEMENTS

During the course of the Comparative Study of the Training of the Agricultural Advisory Personnel in the Netherlands and India, a few major week points have been brought to light, such as the defect in the selection of the Village Level Workers in India, defects in the system of mass education etc. Although most of the week points have been discussed under their respective chapters, such as the organisation of the agricultural advisory service under the chapter of Organisational Set-up of the Agricultural Advisory Services in the Netherlands and India, still there are some which need special attention. Besides, on account of the limited space allotted for each chapter all the improvements required for the better functioning of the advisory services could not be enumerated.

Hence, to throw a light on certain week points and the improvements that are necessary for the betterment of the agricultural advisory services, the inclusion of this chapter of Improvement is vital for our study.

The improvements needed to overcome some of the week points in the agricultural advisory services in India still to be discussed are as follows:

1. Improvements in the selection test of the Village Level Workers.
2. General improvements in the field of the agricultural advisory services.

Selection test for village level workers

At present the selection of village level workers is carried out mainly on the basis of educational qualifications and their performance during a personal interview. The paper records and how he faces the interview may not be a satisfactory test to select persons for the post of village level worker, the back bone of the Community Development and National Extension Service Programmes in India. Generally in an interview the candidates are in a state of nervousness, over anxious about their prospects and present such a false appearance of their personality that a mere interview becomes a thoroughly artificial affair and misleading to both the candidates and the interviewers. Consequently in addition to educational qualifications and the interview, a practical selection test should be carried out for the selection of village level workers which may consist of a series of tests designed to test the candidates physical and mental capabilities including aspects of his character.

Before giving the skeleton of the practical selection test I should like to mention in brief the qualities required to be a really good extension worker.

Hatch¹⁾ ascribed the following as the major qualities of a professional extension worker. Simplicity- All workers who are to be se-

1) Hatch, D. Spencer. Towards freedom from want, 1949, p. 13-55.

lected must have the characteristic of simplicity. The gentleman who has risen to such a high state in life that he cannot bend to take a hand with villagers in a common task, that he cannot associate himself intimately with them, that villagers have, in a measure, to stand when he sits, bend when he stands and takes care that their breath does not pollute him, can hand out charity to them but he cannot lead them in self-help¹⁾.

Enthusiasm and perseverance: They are necessary, the former by reason that it is especially appealing and stimulating to the interest of the worker and the latter in the sense that it is easy in starting a project, but one can only succeed as a worker if one can keep it going.

Faith and sympathy: These qualities are indespensible for an extension worker. He should have faith in himself, his followers and the cause for which he is striving. Faith in the cause strengthens the perseverance necessary. In a situation of under-development, backwardness, disease and distress, absence of sympathy in a worker would mean a deficiency in his personality. Hatch remarks that the range of sympathy is a measure of personality. Sympathy is a requisite of social power. The worker may not belong to the rural people without sympathy.

Spirituality: The non-spiritual man can not be but a foreigner to rural people. If a worker is careless in religious matters he would be undoing the confidence that villagers would have in him.

In addition to the above mentioned qualities, an extension worker should be co-operative by nature, possess initiative, tolerance and teaching capacity.

It seems rather difficult to draw out certain special tests to measure the above mentioned qualities of a candidate. But if he is detained at a certain place and studied for a few days, a decision can be reached on some of the qualities. It is a matter of careful observation on the part of the observer to locate such qualities in the testees. Simplicity of the persons called for a test can be observed in the daily routines of life, such as dressing, eating, sitting etc. Enthusiasm and perseverance can not be noticed if a small piece of work is assigned to a group of persons. The presence or absence of faith in villagers and the object of the programme can be traced out by bringing some of the interesting points in discussion, such as points concerning villagers and the working of the programme. Sympathy and spirituality can be noticed among the persons if they all are allowed to mix with all categories of villagers and to attend their religious functions. However, it is difficult to judge all such qualities separately in each person, but an experienced observer may be able to differentiate them and make a judicious selection of the persons having some of such qualities.

I should like to mention here the following series of tests, collectively called "practical selection test", that has been devised with the active assistance and co-operation of the State Psychological Institute, the Hague. The practical selection test is as follows:

1) Ibid, p. 119.

As usual applications for the post of village level workers are invited by means of an advertisement in local and central news papers, by sending information to the headmasters of high schools and if possible, to the chairman of village councils. After the applications have been received a preliminary selection is carried out on the basis of the basic qualifications required for the post of village level workers. The preliminary selected candidates have to go to a suitable place to be tested for three or four days. Board and lodging arrangements are made by the selection authorities. If the number of candidates is large, they are divided into groups and a supervisor is put in charge of each group. The following tests are carried out during a staying period of three or four days:

1. Test for speech: After the persons have been divided into a reasonable number of groups, each member of a group is asked to give in brief his history concerning education, family life, village life etc. This sort of test will give an idea about the ability of the person to give a speech, a vital trait of an extension worker, his capacity of verbal expression, his acquaintance with village life etc. This sort of test may give a better picture of the candidates than when they are asked to write such on paper.
2. Learning new skill test: This should concern something which is likely to be usefull in a village and which requires both intelligence and manual dexterity to grasp and to reproduce matter. Every group may be given a fodder cutter to dismantle and to assemble or any task which may be quite simple like dismantling andreassembling an ordinary mould board plough.
3. Endurance test: This test will be of great value under Indian conditions. Generally the villages are situated quite far apart from one another and there is no easy means of conveyance to reach them, except for walking or cycling. Accordingly the worker will be required to walk quite a long distance on foot, most of the time through woods or fields or he has to go by bicycle, which will require a high degree of endurance and physical strength on his part. For this purpose a walk to near by villages may be arranged.
4. Dignity and Labour Test: This test is based on the outstanding principle of extension, "make your hands dirty before you ask others to do so!" This test should be carried out by asking the candidate to dig out a compost pit or clean a cattle shed. These activities may be carried out in groups or separately. It may be possible that nobody will hesitate to carry out such work, just because they are being tested and wish to be selected, yet this test can give the magnitude of liking or disliking dirty and physical work.
5. Vocabulary test: Each candidate may be given one or two sheets of paper having a few incomplete sentences. He should be asked to fill in the blanks in a given period of time. It can also be carried out by giving equivalent words to the few words given in the sheets. As a rule these words or sentences may be related to different aspects of the projects, village life etc. This test will

give an idea as to how far the candidate is already acquainted with the various aspects of the project or programme and the life of the villagers with whom he has to find a career.

6. Test for adoption to village life: It has been noticed that whenever a candidate is asked whether he would be able to adopt the hard village life and whether he would be able to mix with the village people, his answer has always been positive. But when he is actually asked to do so one can feel the deviation from the answer. So for this reason it is worthwhile to organise a preliminary test to see the adoptability of the candidate to village life. Each candidate may be assigned a small village and he may be asked to introduce himself to the villagers, stay there overnight and return the next morning with a report on the conditions of the village and the villagers in the broadest terms. He may also be asked to express his reception by the villagers and the intimacy he has been able to create with them.
7. Entertainment test: This test may include the composing of a small song, talk or a story to put up an entertainment for some time. It is not possible to expect any high professional order of entertainment, but some will be able to give a short of variety entertainment. The quality of entertaining the villagers is necessary for a village worker, specially, since Indian villagers are very fond of entertainment. If somebody has this quality we may expect him to be a worker who will gain the friendship and confidence of the villagers in a very short time.

Before any final selection of candidates is made tests on general intelligence are also carried out. Such tests are designed to measure the abilities and distinguish the bright from the dull.

Alfred Binet, a French psychologist invented an intelligence test when the French Government asked him to devise a test to detect those children who were too dull to profit from ordinary schooling¹⁾. Statistical methods have since been devised giving much more precise information on the important component parts of intelligence. These methods, known as factor analysis, make it possible to construct tests which detect patterns of underlying abilities. Later on Thurstone²⁾ (1947) found a cluster of abilities that made up the composites tested by familiar intelligence tests.

Thurstone³⁾ identified seven factors in relation with primary abilities which reveal intelligence. They are as follows:

1. Verbal comprehension (V). The vocabulary test represents this factor.
2. Word Fluency (W). This factor calls for the ability to think of words rapidly as in thinking of words that rhyme.
3. Number (N). A simple arithmetic test, especially those calling for computations, represent this factor.
4. Memory (M). This factor is found in tests requiring memory for pairs of items.
5. Space observation (S). Tests for this factor deal with the visual form of relationship, as drawing a design from memory.

1) Introduction to psychology, 1957, p. 428.

2) Thurstone, L.L. Multiple Factor Analysis, Chicago 1947.

3) Ibid, p. 434.

6. Perceptual (P). This calls for grasping of visual details and of the similarities and differences between pictured objects.
7. Reasoning (R). This is best represented by tests that call for finding a general rule on the basis of presented instances.

Thurstone's method is to give a large number of tests to each individual. Each test is composed of items very much alike, so that the test content is easily described. One test is for verbal comprehension another for arithmetical computation. The scores of all these tests are incorporated.

Once the above seven factors have been identified, it will be possible to construct tests that are freely diagnostic for each factor, so that a test profile will indicate how well the testee performs the tests that represent his ability as a whole.

Though some of the tests described previously deal with most of the primary abilities, yet it should be left to the trained and experienced psychologists of the country to derive such test as may be suited to give the exact picture of the intelligence possessed by an individual. Besides, considerable stress has to be laid on certain factors which are necessary for the proper and smooth working of the extension workers in the villages.

Last but not least, individual interviews should be carried out by a selection board comprising supervisors of the groups of candidates made to carry out the mentioned tests. It may be unquestionable that each candidate will be in a position to speak up boldly and with no fear of misinterpretation, because of his familiarity by his stay at the testing centre and a closer contact with the supervisors.

If such a sort of selection test should be carried out for the selection of Village Level Workers a significant number of unwanted persons would be eliminated and the candidates selected might prove to be worthy of the village level worker's job. If such selected persons, moreover, should be adequately trained, it might be that they would definitely enjoy the work and would form a real team fit for agriculture extension work in Indian villages.

General Improvements

Most of the improvements needed in the fields of the organisation of agricultural advisory services, and selection and training of its personnel have been listed in the preceding chapters. However, in addition to them, there are some more which are directly or indirectly concerned with the training of extension personnel. Such improvements have been listed below.

1. It has been noticed that no or negligible importance is given to in-service training of extension personnel in India. The only means of in-service training of V. L. W. are fortnightly or monthly meetings, literature etc. However, there seems to be a need of intensive in-service training programme to keep the extension workers abreast with the results of experiments, specific projects, etc. Once or twice a year V. L. W. who have done at least one years' work in the field should be called back for a

few days' seminar at their training centre so that the staff could sit together and discuss the various problems that have arisen during their work in the field. The Block Development Officer and his staff can also provide occasional staff seminars in the villages, involving a give and take relation and discussion with village people on the special village problems. Moreover, the training programme of village level workers is of a recent origin and it is too early to judge its effectiveness. Accordingly the Block Development Officer should send periodically the report of village level workers to the Principal of Training Centre giving his suggestions. This may lead to the improvements and amendment of the training programme. As regards the in-service training of Block Development Officers, short courses may be organised in a similar way as in the Netherlands for advisory officers. The duration of such courses may be of 8 to 10 days after every six months or so. The Block Development Officers should be called to a research institution, centrally situated in a province. The course may include lectures by specialists on recent progress in their respective fields. The results of experiments and specific projects may also be discussed. This will keep them up to date in their knowledge concerning various development activities. However, they must be called in reasonable batches at suitable intervals so that their work in the field suffers the least. Similar steps should be taken with respect to Extension Officers and other staff.

2. A Block Development Officer on an average does not stay more than one year and three months in one Block¹⁾, whereas the duration of the development programme of the National Extension Service Block is three years. It is also reported that 40% of the Blocks remain without Block Development Officers for varying length of time, the average being five months²⁾. This sort of condition affects the development programme adversely. The absence of Block Development Officers at Blocks may be due to the rapid growth of the number of Blocks and there is a likelihood that this tendency may be checked in the course of time. As regards their stay at the Blocks it appears probably that two or three change over during one developmental phase. Efforts should be made to keep a Block Development Officer in one Block at least for three years before he is transferred to another as continuity of service of the development personnel is an important factor in the development programme.

3. The quality of personnel at Village and Block level can be kept up at a satisfactory level not merely by appropriate training and competent direction from the top, but also by providing reasonably attractive service conditions and adequate incentives such as pay scale, commensurate with person's qualifications, duties, and responsibilities, travelling allowances, reasonable residen-

1) Report of the Team for the Study of Community Projects and National Extension Service, vol. II, 1955, p. 39.

2) Fifth Evaluation Report on working of Community Development and N.E.S. Blocks, 1958, p. 83.

tial accomodation, scope of promotion and rewards such as educational tours, awards of merit certificates, etc.

If we throw a light on the existing position of a village level worker, his post is still temporary; the chances of promotion are remote, as one must have a university degree to be appointed as Extension Officer or Block Development Officer; there hardly is a provision of a selection grade; at times he finds difficulty in finding suitable residential accomodation and last but not least the payscale is very low so that he can hardly make both ends meet. If these are the service conditions then how can we expect to attract good workers and even if they come, it may be because of unemployment. They will leave the service sooner or later after finding better alternatives.

Similarly we certainly cannot expect talented and qualified teachers on the meagre salaries that we offer them to join the teaching staff in training centres. Unless we make their position easier and provide them with minimum conveniences it will be difficult for them to stick to their jobs. As a matter of fact the poor quality of trainees may also be due to inadequately trained and qualified teachers.

The foremost steps that the Government should take is to provide security of service to extension personnel by making the Community Development Programme and the National Extension Organisation the permanent features of the Ministry of Community Development. Their staff should be treated on a permanent employment basis. To attract a better quality of persons to work in rural areas increased salaries should be granted, reasonable residential accomodation should be provided and scope of promotion should be enlarged by filling at least 25% of senior vacancies by the employees. The intelligent and hard working village level workers should be considered for promotion to higher posts.

4. For the teaching staff of the training centres a short duration course should be arranged, prior to their posting to the training institutions. Such courses may be held at the Extension Wings attached to the agricultural colleges or other technical institutions. However, the kind of training that is required from the instructors in the training centres is new and very few of the teachers have had either previous training for teaching their subject or have been in the education field. It is, therefore, natural that there will be some round pegs in square holes - men whose personality and aptitudes are such that they will never be inspiring as teachers. But as the time moves on, the demand for personnel for the Community Development Programme will require more and more such teachers. For this various aspects of extension training should be given importance in agricultural colleges. It is important for the person who is trained for extension education to have some basic training in the social sciences - rural sociology, cultural anthropology, educational psychology, public administration, etc.
5. In view of the fact that there is a likelihood of increase in the

number of Village Level Workers per block there is need for putting up the present Extension Training Centres on a permanent footing. The temporary nature of these institutions was the main reason why able and experienced teachers were not attracted to them. With the result the quality of training suffered greatly.

6. The Block Development Officer is the keyman of the whole development programme in India. Therefore, he must be a capable administrator who understands the mechanism and the working of the personnel under and above him. Apart from that he must have insight and understanding of lives and aspirations of the village people. He must have a general understanding of all types of work that are carried out in the block. "Train the trainer" was the unanimous slogan raised by the Directors of Agriculture, assembled in the Seminar held on October 8th to 10th in 1957¹⁾. According to them the Block Development Officer at present lacks agricultural knowledge necessary for a worker in charge of 100 villages. So in future it must be made compulsory for everyone to have a university degree in agriculture, in addition to other requirements, to be appointed as Block Development Officer.
7. The aspect of social education has been neglected to a great extent in the training programme of extension workers. Wilson remarked in his report²⁾, "The definition, the scope and the function of social education are not thoroughly understood. Some explained to me that it deals with the motivation underlying the whole programme, others mentioned dramas, recreation, puppet shows and aesthetic expression of various kinds".

Since one of the central objectives of the Community Development Programme and the National Extension Service is to create a new outlook among the village people, it seems necessary for one to understand what is meant by the village outlook, what is involved in creating the new outlook and lastly, how to identify and measure progress in creating and developing the new outlook. The village outlook may be defined as the way village people feel and react to their present situation and the way they think and feel about forces of change which come to them either from within or from outside the village. In studying the village outlook, therefore, the Block workers orientation should pay more attention to the understanding of the mind of the people than to the physical environment.

Change in outlook means not only becoming conscious of deficiencies of present methods and practices but also a positive approach towards the creation of new values, new desires for improvement and new ways of life.

We see, therefore, that social education in the first instance must be concerned with guiding the block staff in understanding

1) Kurukshetra, vol. 6, no. 2, 1957, p. 28.

2) Wilson, M.L. (1956) Comments on Community Projects and National Extension Service Blocks in India. 1956, p. 17.

how village people think and the way they express the attitude towards their present ways of living. For example before the animal husbandry specialist can expect the village level worker to be effective in motivating the village people to accept artificial insemination he must have a good understanding about the villagers attitude and traditional ways of behaving towards cattle. They should also know the values the people place on improving cattle. Each Block worker should be a student of village attitudes, village ways of thinking and village patterns of behaviour.

One may be an excellent agricultural expert without having talent of imparting his knowledge to rural people. But in order that a worker is able to impart his knowledge efficiently he should have an idea of the social aspects of the village people. For example it is easier to say what should be the dimensions of a compost pit, how it should be dug, how rubbish should be deposited there and how long it should stand in the pit in order to become good manure. But the other side of this work is to bring the people to accept the idea and to establish its practice as a habit in the community. This will involve the holding of group discussions, finding out and meeting the resistance of the village people and solving other problems attached with the practice. The idea of a compost pit has to be conveyed by means of dramatic sketches, songs, discussions and other media, so as to work indirectly on the minds of the people. But this is only possible if the extension worker has an idea of holding group discussions, telling stories, composing songs, etc., which too should form a part of the social education imparted to him. Douglas Ensminger¹⁾ states that at present the teaching of village level workers is over the "heads of" the trainees and not enough of instruction is directed to village conditions which a worker experiences when he joins the Block staff. The village level worker should be given increased instruction in understanding village life including such things as what attitudes do people have about the present agriculture, health and education practices, family and village relations and how do they express them; what has been the history of village-Panchayats in serving various phases of village life; who are the village leaders and under what circumstances the village people will accept their leadership; are the castes clearly defined and under what circumstances do village people interact without any regard to castes; what are the things which village people consider of high value and work readily to achieve, etc.

8. Last but not least it is regretable to note that the Evaluation Organisation has paid so little attention to evaluation of the training programme of extension workers. In future, due importance and consideration should be given by this organisation to the training aspect of the workers, so as to show the achievement and the efficiency of trainees trained under a particular training programme and to mention what changes and amendments are necessary to improve the latter.

1) Kurukshtera, vol. 5, no. 1, 1956, p. 18.

SUMMARY

Since the establishment of the Community Development Programme India has been making steady progress in improving the rural life of her village people. Thousands of workers have been selected and trained to undertake a job of tremendous magnitude and importance. However, the training of these workers, so called Extension workers, is a new feature in India. Moreover, in India we are faced with the problem of multi-purpose training, so that a villager may be approached and helped in all fundamental aspects of his life beyond the scope of his mere day to day agricultural operations.

Keeping in view the importance of the problem of the training of agricultural personnel, this study has been carried out under the Department of Rural Sociology of Non-Western countries of the State Agricultural University, Wageningen. It involves the comparative study of various aspects of the agricultural advisory services in the Netherlands and India, with special reference to the training of extension workers.

Starting with the history of the agricultural advisory services in both the countries, it was in 1870 that some agricultural agents were appointed in the Netherlands. However, based on the recommendation of the State Committee of 1886 increased attention was paid to the agricultural advisory work. With the result that the Netherlands Government appointed agricultural officers charged with the extension work on agricultural machinery and working methods in 1912.

Between 1930 and 1940 a number of agricultural assistants, who were in charge of the subsidiary measures to be undertaken during the economic depression, were placed at the disposal of agricultural advisers. Simultaneously the agricultural advisory services for horticulture and livestock were also started. In 1935 the horticultural advisory service developed into a comprehensive service dealing with vegetable and fruit growing, cultivation of horticultural seeds, bulb growing, floriculture and arboriculture.

Some of the important features of the agricultural advisory services in the Netherlands are the following:

1. Table 1 shows that the number of extension workers has become 30 times as large during the last five decades.
2. In the beginning the agricultural advisory services concentrated mainly on production techniques such as the use of fertilizers, improved seeds and implements etc. At present all aspects of agricultural development are tackled.
3. As regards the agricultural extension methods, the greater stress seems to be on the use of mass methods, such as radio talks, booklets, pamphlets, slides and films etc.
4. The people's participation has been secured in the planning and the execution of the agricultural advisory service programmes.

As far as India is concerned, it was in 1928 that F. L. Brayne emphasised the importance of extension workers - the village guides. He drew up a scheme dealing with the overall uplift of the villages. The Grow More Food Campaign was launched in 1942 to increase the production of food grains. The Firka Development Scheme was introduced in Madras in 1946. In 1948 the Etawah Pilot Project was started in Uttar Pradesh. The objective of the project was to raise the level of people and their performances and to improve the physical things the people have to work with. In addition there have been other rural development schemes in India such as the Sarvodaya Scheme in Bombay, the Bihar Panchayat Raj Scheme, the Friends Rural Committee in Madhya Pradesh etc.

In spite of such endeavours there has been no significant improvement in the agricultural condition of the country as a whole. In early 1952 the Grow More Food Enquiry Committee was appointed. Based on its recommendations the Community Development Programme was inaugurated on October 2, 1952. Fifty-five Community Projects were started, each consisting of 300 villages with a population of 65000. However, keeping in view the lack of financial resources and the need for the rapid extension of the development programme to other parts of India the National Extension Service was established in 1953. The basic aims of the Community Projects and the National Extension Service programmes may be summarised as follows:

1. To provide a substantial increase in the country's agricultural production, improvements in the system of communication, rural health and hygiene, and village education.
2. To initiate and direct a process of integrated cultural change aimed at transforming the social and economical life of the villages.

The backbone of the whole programme of rural development under the Community Development is the Village Level Worker. In order to meet the demand of Village Level Workers and other extension personnel various Extension Training Centres were started. In addition, in almost all university agricultural colleges, agricultural extension has been introduced as one of the subjects for degree courses.

It can be stated that in comparison to the Agricultural Advisory Services in the Netherlands, the Community Development Programme and the National Extension Service are of recent origin. In India more emphasis is laid on production techniques than on managerial aspects of agricultural farms. Individual and group methods of agricultural extension are emphasised in India, whereas in the Netherlands more stress is laid on mass media. However, efforts have been made to secure the people's participation in agricultural development programmes in both countries.

As regards the agricultural position of the two countries, the Indian agriculture seems to be in an underdeveloped state compared to that in the Netherlands. Table 6 shows that the yield of wheat and barley crops are about five times lower in India as compared to those in the Netherlands. The use of inorganic fertilizers is

higher in the Netherlands than in India. The average milk yield of an Indian cow is several times lower than that of a Dutch one. The provisions to safeguard the interests of tenants are of more recent origin in India than in the Netherlands. The extent of seasonal unemployment among the agricultural labourers does not look as serious in the Netherlands as in India. The conditions of working for agricultural labourers are much more reasonable in the Netherlands than in India. In the Netherlands the payment of wages is mostly in cash; the wages are fixed and the chances are remote that an agricultural labourer will accept lower wages. Moreover, there is a greater tendency to outflow than to inflow among agricultural labourers, which helps them to avail increasing opportunities for employment. The hours of work are also fixed for them.

From the point of view of the agricultural advisory services and its personnel, the social structure of the rural community with which the latter works, forms a major factor in the field of agricultural development. The class and caste systems in the Netherlands and India respectively form serious impediments to the work of extension personnel. Similarly, the joint family has a great impact on the acceptance of improved agricultural practices and extension workers. In a joint family the head exercises almost absolute power over its members. All the initiative and final authority are vested in him. The authoritarianism is negatively related with the acceptance of farm practices in at least two ways:

1. The more authoritarian the role of the farm operator the slower the acceptance of innovations in farming will be.
2. The greater the dependence on the authority (father etc.) of the operator the slower the farm practices will be accepted which are not approved of by the authority.

Farmers' organisations, as existing in the Netherlands, are of significant importance in the social structure of the rural community. These are of great use in promoting agricultural advisory work and agricultural education. Similarly, village leaders also occupy a very important position in the social life of the rural community. In fact, these are the persons whose co-operation is vital to the success of the agricultural advisory services.

In addition to the social structure of the rural community, social provisions are also important from the point of view of the agricultural advisory service. The latter enable the rural population to get in touch with the outside world. The social provisions seem to have been better developed in the Netherlands. Every agricultural farm has been connected with paved or unpaved roads; almost every farmer receives a newspaper and possesses a radio or television set; the standard of houses is reasonably high and almost all are supplied with electricity and gas. The result is that the rural population keeps in closer touch with the outside world in the Netherlands as compared to India. Hence the ties with the agricultural advisory service or personnel are stronger in the former country than in the latter.

Concerning the organisational set up the agricultural advisory services in both countries, the Ministry of Agriculture and Fish-

ries in the Netherlands and the Ministry of Agriculture and Co-operation in India are responsible for the advisory work. There are various officers at state, district and village level, in both countries which are responsible for the co-operation of the agricultural development work. Attempts have also been made to have consultive and advisory committees with administrative personnel at various levels, such as the National and Provincial Councils of Agricultural Advisory Work in the Netherlands and the National and State Development Councils in India. However, in India the relationship between agricultural research, advisory work and residential teaching is not so close as it is in the Netherlands. In India there still exists the "boss-subordinate" relationship among the field staff, giving an authoritarian touch to the administration. In the Netherlands this sort of relationship seems to be no longer existing. Some of the weak points in the organisational set up of the agricultural advisory services in the Netherlands and India are as follows:

The Netherlands

1. The area given to a Local Assistant to carry out agricultural work is too large.
2. There is not one person responsible for the agricultural development of a province as a whole.
3. The link between the National Council and the Provincial Council for the Advisory Work is not strong enough to keep close contact with each other.
4. Regularity in the meeting of National and Provincial councils is not maintained.

India

1. In some States the Revenue Officer, known as Tehsildar, acts as B.D.O. This arrangement should be discarded as the Revenue Officer is imbued with what is known as a bureaucratic spirit.
2. There exists a "boss-subordinate" relationship among the Block staff.
3. The village councils are not active enough to participate in the planning and execution of the rural development programme.
4. The area of operation for a V.L.W. is too large.
5. Adequate working facilities are not provided for extension workers, especially to those who are stationed at village level.

Selection of the agricultural advisory personnel is of acute importance for the proper functioning of the agricultural advisory services. Because of the specialised nature of the advisory services in the Netherlands, the Advisory Officer has to be a scientific person i.e. he has to be trained in an agricultural university. In India, however the B.D.O. may be an agriculturally or non-agriculturally trained person. The educational qualifications are not strictly adhered to.

Every Advisory Officer and Local Assistant in the arable and grassland advisory service in the Netherlands at least, has to pass through a psychological test before the final appointment to the ser-

vice. But in India no such a test is carried out for the selection of extension personnel. Most of the time a personal interview only is considered to be sufficient for the selection of extension personnel. In the Netherlands the agricultural advisory service is not regarded as a service providing employment to those who come merely to seek employment, whereas in India it may be seen as one of the agencies which absorbs unemployed educated persons. In the Netherlands the teaching staff of the agricultural university is consulted in the selection of the candidates for the advisory work, but this is not so in India.

In as far as the selection of Head Assistants in the Netherlands is concerned, they are always promoted from the rank of Local Assistant. But the Extension Officers in India are selected mostly from outside market.

The following may be given as weak points in the selection of extension personnel in India.

1. There are many B. D. O. s having no training and education in agriculture which is entirely indispensable to rural development work.
2. Still, in some places the Revenue Officers are being appointed as B. D. O. s. This practice should be discarded.
3. The Public Service Commission takes too much time in the selection of B. D. O. s
4. Some of the V. L. W. s do not have any village background. Even if such persons are trained for a sufficiently long time they may not adopt an agricultural outlook.
5. After the candidates have been selected and sent for training there seems to be no definite way of getting rid of the unsuitable ones.

Coming to the training of Advisory Officers in the Netherlands, it is necessary for them to have pre-service training in an agricultural university. But in India Block Development Officers may or may not have any such training. Some of the B. D. O. s working at present in the National Extension Service do not have any pre-service training in agriculture. Besides, in India the minimum educational requirement for a B. D. O. is B. Sc. Ag, and not M. Sc. Ag (equivalent to Landbouwkundig Ingenieur) as is the case in the Netherlands. Also there is not enough provision in India to impart such a long field training to the agricultural university students as is done in the Netherlands.

During the university education in the Netherlands emphasis is laid on "broad based" training rather than on a higher degree of specialisation. From the agricultural development point of view "broad based" training is more suited to extension personnel.

In India there is an induction training course for B. D. O. s whereas no such a course exists in the Netherlands. However, in the latter the deficiency of induction training is compensated by having a well balanced in-service training course for the Advisory Officers. There is, however, no such an in-service training course for the B. D. O. s in India. Though inter-district seminars, monthly and quarterly meetings literature etc. are provided for B. D. O. s, yet

they seem to be inadequate to meet the demand for an in-service training course.

In India pre-service training is given to the V. L. W. s at the Basic Agricultural Schools, whereas in the Netherlands there are primary and secondary agricultural schools for this purpose. Practical and theoretical training at agricultural schools in the Netherlands seem to be better than those at the Basic Agricultural Schools in India. However, the "integrated training" course of basic agriculture and extension methods, started in July 1958, imparts adequate basic knowledge in agriculture and extension methods to Village Level Workers to meet the requirement of the development programme. There are very limited opportunities for in-service training of V. L. W. s in India, the only means being fortnightly and monthly meetings, visits by technical persons, literature etc. But in the Netherlands, in addition to the above mentioned means, special in-service training exists to enhance the subject matter knowledge of Local Assistants.

Some of the weak points in the training of agricultural extension personnel in India are as follows:

1. There seem to be no introductory course in rural sociology at most of the agricultural colleges.
2. The agricultural university trained personnel do not possess enough practical education in the field of extension.
3. The induction training period of B. D. O. s seems to be short.
4. Sometimes the candidates, soon after their selection, are appointed as B. D. O. s and not sent for induction training. In such cases the work of the Blocks is bound to suffer adversely.
5. There is lack of adequate in-service training for B. D. O. s and V. L. W. s.
6. Similarly, there is no specific in-service training for the Extension Officers.

In addition to the improvements brought to light during the Comparative Study of the Training of Agricultural Advisory Personnel in the Netherlands and India, there are still some that need special attention. They are the following:

1. A practical selection test should be carried out for Village Level Workers. It should comprise tests for: speech, learning a new skill, endurance, dignity and labour, vocabulary, entertainment and the adoption to village life. If such a sort of selection test is carried out for the selection of Village Level Workers, a significant number of unwanted persons would be eliminated and the candidates selected might prove worthy for their jobs.
2. In general Block Development Officers do not stay for more than one year and three months in one Block, whereas the duration of the development programme of the National Extension Service is three years. This sort of condition affects the programme adversely. Efforts should be made to keep a B. D. O. in one Block for three years at least.
3. Reasonably attractive service conditions and adequate incentives, such as pay scales commensurate with the qualifications of the applicants, duties and responsibilities, travelling allowances,

resonable residential accomodation etc., should be provided to agricultural extension personnel.

4. For the teaching staff of Extension Training Centres a short duration course in agricultural extension should be arranged prior to appointing them to the centres.
5. All Extension Training Centres and Institutions should be put up to a permanent footing.
6. Every Block Development Officer should be an agriculturally trained person.
7. The aspect of social education should be included in the training programme of all extension workers, especially those trained at the agricultural colleges.
8. In future due importance and consideration should be given to the training aspect of extension workers by the Evaluation Organisation so as to show the achievement and efficiency of the trainees trained under a particular training programme.

APPENDIX A

Following is the list of Local Associations along with the number of their members in various districts of the Netherlands.

Names of the Districts	No: of Local Associations	No: of their Members	Area covered in hectares
1. Groningen	2	600	16,500
2. Veendam	5	2883	58,865
3. Sneek	16	1768	27,146
4. Drachten	10	645	8,198
5. Assen	17	3198	37,869
6. Emmen	15	3397	53,460
7. N.E. Polders	1	1400	32,844
8. Zwoile	20	5665	59,658
9. Hengelo	13	1184	12,565
10. Arnhem	2	318	2,617
11. Doetinchem	13	2239	24,468
12. Tiel	1	52	1,348
13. Utrecht	32	2725	38,013
14. Schagen	10	2146	40,502
15. Purmerend	13	2255	41,823
16. Rotterdam	7	2631	49,400
17. Dordrecht	7	2814	52,700
18. Goes	3	762	15,728
19. Zevenbergen	5	1122	23,540
Total till 1957	192	37,304	607,243
Total in 1958	196	38,719	640,299

APPENDIX B

Following is the list of institutions and training centres set up by the Ministry of Community Development and Co-operation in India.

1. Central Institute of Study and Research in Community Development, Radha Bhavan, Mussoorie; U. P.
2. Trainers Training Institute, Mussoorie-Road-4, Rajpur, U. P.

Orientation Training Centres

1. Orientation Training Centre, Nilokheri, Kernal, Punjab.
2. Orientation Training Centre, Single's Camp, Ranchi, Bihar.
3. Orientation Training Centre, Himayatsagar, Hyderabad, Andhra Pradesh.
4. Orientation Training Centre, Bakshi-Ka-Talab, Lucknow, U. P.
5. Orientation Training Centre, Udaipur, Rajasthan.
6. Orientation Training Centre, Jockey's Quarters, Mysore.
7. Orientation Training Centre, Adhertal, Jabalpore.
8. Orientation Training Centre, Junagarh, Bombay.

In addition to the above mentioned training centres there are 14 Social Education Organisers' Training Centres and 6 Bolck Development Officers Training Centres.

In all there are 117 Extension Training Centres where Gram Sevaks (Village Level Workers) receive training for two years. More than 33,000 Gram Sevaks had been trained by the end of December, 1958. Gram Sevikas (Female Village Level Workers) are trained in 27 training centres which have Home Economics Wings attached to them.

Short duration camps are held in rural areas to train non-officials. More than one million Gram Sahakyas (Village Leaders) have been traind to supplement the work of Gram Sevaks. Similar training is being arranged for members of the Block Development Committees, Panchayats, and Co-operative Societies.

The Social Education Organisers' Training Centres are situated at the following places:

Ranchi in Bihar, Nilokheri in Punjab, Allahabad in U. P., Lucknow in U. P., Sirineketan in West Bengal, Howrah in West Bengal, Coimbatore in Madras, Baroda in Bombay, Maduri in Madras, Kolahapur in Bombay, Indore in Madhya Pradesh, Gunjam in Orissa & Udaipur in Rajasthan.

APPENDIX C

Following are the names of the Agricultural Colleges in India having Agricultural Extension as a compulsory or optional subject:

1. Agricultural College, Bapatla, Andhra Pradesh.
2. College of Agriculture, Hyderabad*.
3. Agricultural College, Ranchi, Bihar.
4. Bihar Agricultural College, Sabore, Bihar.
5. Agricultural College, Akola, Bombay.
6. College of Agriculture, Nagpur*.
7. Agricultural College, Poona, Bombay.
8. Agricultural College and Research Institute, Lawley Road, Coimbatore, Madras.
9. College of Agriculture, Jabalpore.
10. Agricultural College, Bhuvneshwar, Orissa.
11. Government Agricultural College, Ludhiana*, Punjab
12. S. K. N. Agricultural College, Jobner, Rajasthan.
13. Rajasthan College of Agriculture, Udaipur*, Rajasthan.
14. Agricultural College and Research Institute, Vellayani, Kerala
15. B.R. College, Agra, U. P.
16. Jat Agricultural College, Baraut (Meruth) U. P.
17. College of Agriculture, Banaras, U. P.
18. Government Agricultural College, Kanpur, U. P.
19. Amar Sinsa Jat College of Agriculture, Lakhota, U. P.
20. West Bengal State College of Agriculture, Rani Kuthi*, West Bengal.

(* Agricultural Colleges with Extension Wings.

APPENDIX D

Gram Sewak Training Centres

<u>States</u>	<u>No.</u>	<u>Locations</u>
Andhra Pradesh	8	Anakapella, Bapatla, Gopannapalam, Kalahasti Nandyal, Rajinder Nagar (two), Samalkot.
Assam, Nefia & Manipur	3	Jorhat, Khanapara, Upper Skillong.
Bihar	4 +	Muzzafarpur, Monghyr, Ranchi, Patna (six month course)
	17	Agricultural Schools (two years course): Bakhtiapur, Hazaribag, Chai-bassa, Jammu, Daltongung, Mandor, Dhanabad, Papra, Dumka, Pumet, Dumraon, Pusa, Gaya, Kanke, Hazi-pur, Sabara, Sepaya.
Bombay	14	Amravati, Anand, Badnapur, Baroda, Buldana, Jalgaon, Junagarh, Kolha-pur, Manjri, Morvi, Parbhani, Sindewahi, Surat, Tharsa.
Kerala	4	Kottarakara, Ollikara, Taliparamba, Peroorkada.
Madhya Pradesh	7	Antri, Betul, Nowgong, Obedullaganj, Powerkheda, Satrati, Chandkhuri.
Madras, Pondicharry	7	Aduthurai, Arni, Bhavanisagar, Gandhi-gram, Kovilpatti, Pattukotai, Kallupatti.
Mysore	5	Bagalkot, Dharwar, Gangawati, Kudige, Mandy.
Orissa	5	Balasore, Bhubaneswar, Bolangir, Mahisapat, Rangeilunda.
Punjab	3	Batala, Nabha, Sirsa.
Rajasthan	5	Deoli, Erinpura, Kotah, Swaimadhopur, Ajmer.
Utter Pradesh	24	Asafpur, Bakshi-ka-talab, Baraut, Bichpuri, Bulandshar, Doharighat, Chirgaon, Faizabad, Forrukhabad, Ghazipur, Gorakhpur, Gurukulkandi Howalbagh, Jhusi, Kelakanker, Lakhna, Lakhoti, Mainpuri, Pauri, Pratapgarh, Rajghat, Rampur, Tamkhoi Rudrapur.

<u>States</u>	<u>No.</u>	<u>Locations</u>
West Bengal	9	Burdwan, Chinsurah, Coochbihar, Fulia I, Kalyani, Krishnapur, Malda, Midnapur or Purulia.
Tripura & Andaman		
Jammu & Kashmir	1	Malangpura.
Himachal Pradesh	1	Mashobra.
Total	117	

APPENDIX E

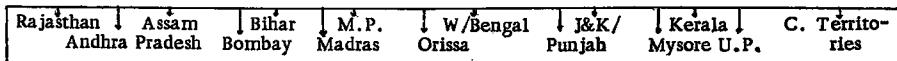
Organisational Chart of the Community Development Programme

Organisation in India

CENTRAL COMMITTEE



(which is presided over by the Prime Minister and has representatives of the Planning Commission, Ministry of Community Development and Co-operation and Food and Agriculture) lays down policies implemented through the Ministry of Community Development and Co-operation, which guides the movement through the State Governments of



Every Government has a

STATE DEVELOPMENT COMMITTEE



Which is presided over by the Chief Minister and consists of Ministers of development departments (Secretary: Development Commissioner). It implements the policies through District Magistrates and D. M. s., who are assisted by

DISTRICT PLANNING COMMITTEE



(including non-officials)

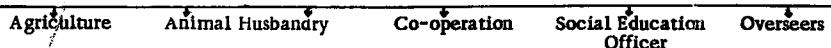
Every district is divided into Tehsil or Talukas
which are subdivided into Blocks.

Each Block (100 Villages) is under charge of a Block
Development Officer assisted by

BLOCK DEVELOPMENT COMMITTEE



and Extension Officers for



and
10 Gram Sevaks
each in charge of 10 villages

APPENDIX F

In order to ensure effective and speedy execution of the Community Development Programme and to bring about coordination among various departments of the Government, the Bihar State Government have set up a State Advisory Board with the following members¹⁾:

1. Development Commissioner - Chairman
2. Secretary, Development Department
3. Joint secretary Development Department
4. Secretary, Health Department
5. Secretary, Education Department
6. Secretary, Public Works Department
7. Secretary, Revenue Department
8. Secretary, Welfare Department
9. Secretary, Finance Department
10. Additional Secretary, Revenue Department
11. Director of Agriculture
12. Director of Animal Husbandry
13. Registrar Co-operatives
14. Director of Industries
15. Additional Director of Industries
16. Director of Health Services
17. Director of Public Institute
18. Deputy Director of Social Education
19. Chief Engineer of Roads and Buildings
20. Director of the Central Bureau of Economics and Statistics
21. Director of Gram Panchayat
22. Joint Development Commissioner-Secretary

The board meets at least once a quarter.

The functions of this board are:

1. To advise on the formulations of working plans and the development programme of the block.
2. To review progress in the implementation of these plans and programmes.
3. To promote the peoples participation and co-operation in these programmes and specially in such programmes as increased agricultural production.

1) Kurukshtera, vol. 6, 9, 1957, p. 29.

APPENDIX G¹⁾

Normal Rainfall Distribution

<u>Rainfall</u>	<u>Division/Sub-Division</u>
Above 100"	Bay Islands, Konkan, Malabar and South Kanara.
Above 50" but below 100"	Assam (including Manipur and Tripura), West Bengal, Orissa, Chota Nagpur, Madhya Pradesh (East) and Travancore Cochin.
Above 30" but below 50"	Bihar (sub-division), Utter Pradesh, (East and West), Jammu and Kashmir, Madhya Bharat, Madhya Pradesh, Gujarat, Hyderabad (North and South), Coastal Andhra Pradesh, Tamilnad and Mysore.
Below 30"	Punjab (including P. E. P. S. U. and Delhi), Rajasthan and Rayala seema.

1) Indian Agriculture in Brief, Ministry of Food and Agriculture, Government of India, 1954
p. 24

BIBLIOGRAPHY

1. Abma, E. 1958: Boer en Standorganisatie. (Participation of Farmers in Farmers' Union). The State Agricultural University, Wageningen; the Netherlands.
2. Abma, E. 1956: Boer en Cooperatie in Nederland. (Farmers' Attitude Towards Cooperatives). Dept. of Sociology, the State Agricultural University, the Netherlands.
3. Abma, E.. 1958: Boer en Cooperatie in Nederland. Co-operatieve en niet-Cooperatieve Boeren. (Factors influencing Farmers' Attitudes Towards Cooperatives). Dept. of Sociology, the State Agricultural University, the Netherlands.
4. Aiyer, A. K. Y. N. 1954: Village Improvement and Agriculture Extension. Mysore Government Press, Bangalore.
5. Babu, V. V. 1953: Our Five Year Plan. Atma Ram & Sons. Delhi.
6. Barnabas, A. D. 1958: Who are village Leaders. Kurukshetra 6 (5), pp 388-399.
7. Belshaw, H and Grant, J. B. 1953: Report of the Mission on Community Organisation and Development in South and South east Asia. United Nations. New York.
8. Bhandari, K. G. 1956: Objectives of Training. Kurukshetra 4 (4), p. 40.
9. Blis, R. K. 1952: Spirit and Philosophy of Extension Work, Washington.
10. Bose, S. P. 1956: The Changing Pattern of Agricultural Extension in West Bengal.
11. Brayne, F. L. 1927: Village Uplift in India, The Pioneer Press, Allahabad.
12. Brunner, E. and Sandres, I. T. 1954: Farmers of the World. Columbia University Press, New York.
13. Chawdhry, D. P. 1955: Role of Social Education in extension projects. Ind. Jour. Adlt. Edu. 16 (2), p 41.
14. Committee on Plan Projects 1957: Report of the Team for the Study of Community Projects and National

Extension Service Vol. I to III.

15. Community Project Administration 1954: Summary Record of Second Development Commissioners' Conference on Community Projects. Govt. of India.

16. Community Project Administration 1955: Organisation of National Extension Service and Expansion of Community Development Programme. C. P. A. series No: 12.

17. Community Project Administration 1955: Community Development Programme in India. Govt. of India.

18. Community Project Administration 1955: A Symposium on Community Development in India (1952-'55). Delhi.

19. Community Project Administration 1956: Main Recommendation and Conclusion of the Fifth Development Commissioners' Conference at Nanital from 5th to 8th May.

20. Community Project Administration 1956: National Extension Service and Community Development Programme. C. P. A. Series No: 13 A.

21. Cornbach, L. T. 1949: Essentials of Psychological Testing. New York.

22. Datta, A. K. 1957: Some Aspects of Social change in Rural India and Role of Community Development Programme. Tijdschrift Indonesië. April.

23. Deshpande, A. R. 1958: The Role of Social Education in Community Development Projects in India. Fundamental and Adult Education, 10 (2), p. 73.

24. Dovring, F. 1956: Land and Labour in Europe 1900-50. The Hague.

25. Dube, S. C. 1956: Indian Village. London E. C. 4

26. Dube, S. C. 1958: India's Chanding Villages. London E. C. 4

27. Ensminger, D. 1952: Village Level Worker. Indian Farming 2 (4), p. 14.

28. Ensminger, D. 1956: Training of Gram Sewak and Gram Sewika. Kurukshetra 5 (1), p. 18.

29. F. A. O 1958: Report on the Extension Study Tour for Asia and the Far East. Report No: 892. Rome.

30. Gandhi, M. K. 1951: Basic Education. Navajivan Publi-

shing House. Ahmedabad. India.

31. Godourek, I. 1956: The Dutch Community. Leiden, the Netherlands.

32. Gupta, M. L. 1955: Problems of Unemployment in India. (Thesis for the doctorate degree).

33. Haiman, F. S. 1948: Group Leadership and Democratic Action. New York. pp. 25-46.

34. Hatch, D. Spencer 1949: Towards Freedom from Wants.

35. Hearne, C. C. 1956: What Indian Extension Programme is accomplishing. Foreign Agriculture, 20 (4), pp 8-9.

36. Hilgard, E. R. 1957: Introduction to Psychology.

37. Hofstee, E. W. 1953: Sociologische Aspecten van de Landbouw Voorlichting. Wageningen.

38. Hofstee, E. W. 1957: Rural Life and Rural Welfare in the Netherlands. the Hague.

39. Kabir, H. 1956: Education in New India. London.

40. Kaufman, H. 1944: Prestige Clan in New York Rural community.

41. Kelsey, L. D. and Hearne, C. C. 1955: Cooperative Extension Work. Ithaca, New York.

42. Keulen, N. J. A. van 1953: The Agricultural Instruction in the Netherlands and its Significance for Agricultural Industry. Economische Statistische Berichten, No: 40, p. 250.

43. Keur, J. Y. and Keur, D. L. 1955: The Deeply Rooted. Assen. the Netherlands.

44. Krishnamachari, V. T. 1954: Concept of N. E. S. Movement. New Delhi.

45. Krishnamachari, V. T. 1954: National Extension Service. Commerce, Dec. pp 22-24.

46. Lall, M. M. 1956: Gandhi and Village Improvement. Towards a Welfare State. Govt. of India.

47. Lijfering, J. H. W. 1959: De omvang van de Agrarische Beroepsbevolking in de 20^e Eeuw in het Bijzonder in de Periode 1947-1956. (Development of the Dutch Agricultural Population during the 20th Century, Particularly in the period 1947-1956). Wageningen.

48. Malkhani, N. R. 1956: Our Training Programme. Kurukshetra 4, (12) p. 17.

49. Malviya, K. D. 1954: Land Reform in India. Delhi.

50. Maris, A. Visser 1954: De Land arbeiders in Nederland. (Agricultural Labour in the Netherlands). The Hague.

51. Mathur, S. B. 1953: National Extension Service a Study. Rural India 16 (1), pp 428-434.

52. Mayer Albert 1958: Pilot Projects, India. University of California; California.

53. Mayer Albert 1956; Development Projects in an Indian Village. Pacific Affairs 29 (1), pp 37.

54. Mead, M. 1957: "Village Life". Cultural Pattern and Technical Change. pp 54.

55. Ministry of food and Agriculture 1956: Towards a Welfare State. New Delhi.

56. Ministry of Community Development 1953: Leadership and Co-operation in Village, Kurukshetra 1 (7), pp 11-12.

57. -Do- 1956: Manual for Village Level Workers. Govt. of India.

58. -Do- 1957: Farm leaders Camp. Kurukshetra 5 (11), p. 25.

59. -Do- 1957: A Guide to Community Development. Govt. of India.

60. -Do- 1957: The fourth Extension Training Conference held at Abu. June. Govt. of India.

61. -Do- 1958: Annual Conference on Community Development at Mount Abu from 20th May, 1958.

62. Ministry of Information and Broadcasting 1954: Building for Tomorrow. Publication Division. Delhi.

63. -Do- 1957: India- 1957. (A Reference Annual book).

64. -Do- 1958: India- 1985. (A Reference Annual book).

65. Misra, M. D. 1952: Extension Service and its Role in Rural Reconstruction. Rural India, October. pp 365-371.

66. Mukerjes, R. 1950: Planning the Country Side. Bombay.

67. Mukerjes, S. N. 1950: Education in India to-day and to-morrow. Baroda.

68. Mukerjes, R. K. 1957: The Dynamics of Rural Society. Academic-Verlag, Berlin.

69. Nafe, Robert, W. 1950: A Psychological Description of Leadership. Jour. of Socl. Psy. p. 248.

70. Nag, D. S. 1949: A Study of Economic Plans for India.

71. Naik, J. P. 1953: Research Experiments in Rural Education. New Delhi.

72. Naik, M. N. 1953: National Extension Service. Rural India. November, pp 371-374.

73. Nanavati and Manilal 1951: The Indian Agricultural Problems. Indian Society of Agricultural Economics. Bombay.

74. Nanavati and Manilal 1952: Agencies of Rural Reconstruction. The Ind. Jour. of Agril. Econ. August. p. 17.

75. Narayana Swamy, and Narasimham, P. S. 1951: The Economics of Indian Agriculture, Part I and II.

76. Nehru, Jawahar Lal 1957: Community Development. Publication Division; Givt. of India. Delhi.

77. Nimbkar, K. 1955: Extension Service in Rural India. Khadi Gramodyog I (9), pp 21-26.

78. Nurullah, S and Naik, J. P. 1951: A History of Education in India, Bombay.

79. O. E. E. C. 1950: Agricultural Advisory Services in European Countries.

80. O. E. E. C. 1954: Development of Agricultural Advisory Services in Europe since 1950.

81. O. E. E. C. 1956: In Service Training in Agricultural Advisory Work.

82. O. E. E. C. 1957: Agricultural Advisory Services in Europe and North America.

83. Penders, J. M. A. 1956: Methods and Programme Planning in Rural Extension. Wageningen, the Netherlands.

84. Penders, J. M. A. 1956: Training of Agricultural Advisory Services Personnel. The Netherland Jour. of Agril. Sic. 4, pp 223-25.

85. Penders, J. M. A. 1957: Agricultural Advisory Service in the Netherlands. FAITS Review, 4 (2), p. 20.

86. Pigor, P. 1953: Leadership and Domination in the Rural Community.

87. Planning Commission 1951: First Five Year Plan. Govt. of India. Delhi.

88. Planning Commission 1955: Social Welfare in India. Delhi.

89. Planning Commission 1956: Second Five Year Plan. Govn. of India.

90. Planning Commission 1956: Evaluation Report on Working of Community Projects and N. E. S. Blocks. Govt. of India.

91. Planning Commission 1957: Evaluation Report on Working of Community Projects and N. E. S. Blocks Govt. of India.

92. Planning Commission 1958: Fifth Evaluation Report on working of Community Projects and N. E. S. Blocks. Govt. of India.

93. Raj Naraian 1954: Extension Education. Shiksha 6 (3), pp 113-123.

94. Ramamurti, B. 1954: Agricultural Labour; How They Work, and Live. All India Agricultural Labour Enquiry. Ministry of Labour, New Delhi.

95. Ram Nath, S. 1958: Agricultural Progress in India. World Crops 10 (3), pp 103-105.

96. Randhawa, M. S. 1956: Extension Training Programme. Kurukshetra, 4 (11), p. 39.

97. Rao, A. V. R. 1955: Structure and Working of Village Panchayats. Gokhle Institute, Poona.

98. Ray, S. C. 1954: Our Extension Training Centre. Kurukshetra, 3 (1), pp 24-26.

99. Ruopp, P. 1953: Approaches to Community Development. The Hague.

100. Saiyidain, K. G.; 1952: Compulsory Education in India. UNES- Naik, J. P. and Husain, S. A. CO. Paris.

101. Saiyidain, K. G. 1955: The Place of Social Education in National Life. Ind. Jour. of Adlt. Edu. 16 (3), pp 36-41.

102. Sen, P. K. 1954: Extension of Agricultural Education. Soc. & Cult. 19 (8), pp 373-377.

103. Singh, M. 1947: The Depressed Classes. Bombay.

104. Sinha, J. P. 1950: A scheme for Extension Service in India. Ind. Farm., p. 387.

105. Sharma, S. K. 1957: A study of Effects of Villagers' Participation in Rural Development; its Limitations and Suggestions for Improvement. I. A. R. I., New Delhi. (The thesis for Assoc. I. A. R. I.).

106. Spicer, E. H. 1952: Human Problems in Technological Change. New York.
107. Srivastava, 1951: Education in Free India. Bombay. K. N.
108. Stogdill, R. M. 1948: Personal factors associated with Leadership. Jour. of Psy. p. 35.
109. Taylor, C. C. 1954: Programme and Methods. Kurukshetra, 3 (1), pp 16-21.
110. Taylor, C. C. 1956: Content and Scope of Community Development. Kurukshetra, 5 (4), p. 37.
111. Tergrugge, G. J. 1955: Re-allocation of Farm Lands in the Netherlands. Agriculture, LXII (7), pp 339-341.
112. Terman, L. M. 1937: Measuring Intelligence. Washington and Merrill, D. C. M. A.
113. Therumali, S. 1954: Post War Agricultural Problems and Policies in India.
114. United Nations 1953: Report of the Mission on Community Organisation and Development in South and Southeast Asia.
115. United Nations 1953: Social Progress through Community Development. Bureau of Social Affairs. New York.
116. United Nations 1954: Methods and Techniques of Community Development in the United Kingdom Dependent and Trust Territories. New York.
117. United Nations 1953: Principles of Community Development. Economic and Social Council, New York.
118. United Nations 1955: Community Development Policy and Administration in non-self Governing Territories. New York.
119. U. N. E. S. C. O. 1952: They can't afford to wait. New York.
120. Van Den Ban, 1957: Some Characteristics of Progressive Farmers in the Netherlands. Rural Sociology, 22 (3), pp 205-211.
121. Van Den Ban, 1958: Regionale Verschillen in de Toepassing van enkele landbouw Methoden. (Regional Differences in the adoption

of some Farm Practioes). Wageningen, the Netherlands.

122. Vyas, K. C. 1954: The Development of National Education in India. Bombay.

123. Wickers, A. J. 1958: De Evaluatie van een Voorlichtings-campagne in de Betuwe. (The Evaluation of an Advisory Campaign). Wageningen, the Netherlands.

124. Wilden, A. F. 1949: Community Leaders need to be selected, trained and serviced.

125. Wilson, M. L. 1956: Community Programme in India. New Delhi.

126. Wilson, M. C. and Gallop, C. 1955: Extension Teaching Methods. U. S. D. A. Extension Service Circular No: 495.

127. Wood, E. 1954: Extension in Village India. Econ-Weekly 6 (46), pp1271-1274.

128. Yang, H. P. 1957: Training Rural Leaders. F.A.O., Rome.

129. 1928: Report of the Royal Commission on Agriculture in India. Govt. of India.

130. 1946: Report of the Southern Regional Workshop on Extension Supervision. North Carolina State College. United States.

131. 1953: Methods of Agriculture Extension, Wageningen, the Netherlands.

132. 1954: Report of Fiscal Commission. Govt. of India.

133. 1954: All India Rural Credit Survey Report of the Committee of Direction, New Delhi.

134. 1954: Rural Development Schemes in India. Institute of Pacific Relations. New York.

135. 1955: How Farm People accept New Ideas. Agriculture Extension Service. Iowa State College (Special Report No: 15).

136. 1956: Report of Senate Committee on Pre-service and Graduate Training for Extension Personnel. United States Extension Service Memographical Report No: 1100.

- 137. 1956: Evaluation in Extension. U.S.D.A.
- 138. 1956: The Gaon Sathi. Oxford University Press, Amen House, London E.C. 4.
- 139. 1957: Pilot Villages and Pilot Areas in the Netherlands. (Published by the Agricultural Advisory Services in the Netherlands).
- 140. 1958: Selection and Training of Vocational Guidance Personnel. Int. Lab. Rev. 77 (5), pp 468-480.

Map of

INDIA

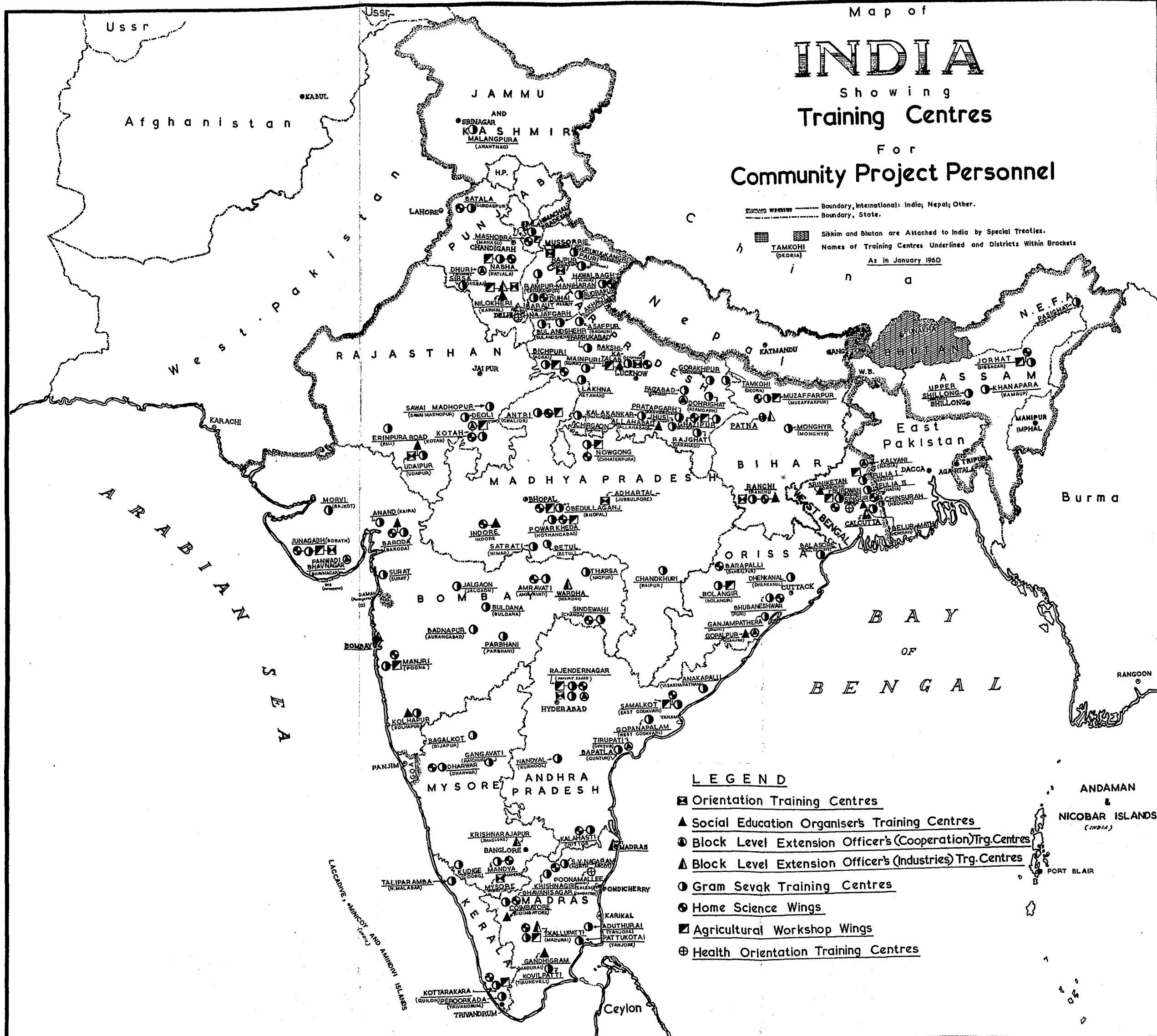
Showing Training Centres

For Community Project Personnel

Legend: ┌───────── Boundary, International: India; Nepal; Other.
└───────── Boundary, State.

Sikkim and Bhutan are Attached to India by Special Treaties.
Names of Training Centres Underlined and Districts Within Brackets

As in January 1960



LEGEND

- Orientation Training Centres
- Social Education Organiser's Training Centres
- Block Level Extension Officer's (Cooperation) Trg. Centres
- Block Level Extension Officer's (Industries) Trg. Centres
- Gram Sevak Training Centres
- Home Science Wings
- Agricultural Workshop Wings
- Health Orientation Training Centres