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NOTES ON EXTENSION IN AGRICULTURE

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Workbook in Crops and Soils
Workbook in Animal Husbandry and Poultry
Workbook in Farm Management and Marketing

PREFACE

These Notes on Extension in Agriculture do not purport to offer comment on every phase of the subject that might be profitably studied. It is hoped they present highlights on major phases of Extension Education with which all extension workers should be familiar as they enter work in this challenging field.

They are dedicated to the young men studying for a B.Sc. (Agric.) on whose shoulders in a few years will rest the responsibility for the success of Extension Education in India.

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ACKNOWLEDGEMENT

Most grateful acknowledgement is made of the assistance given by my friend and co-worker Dean J. H. McLeod, Extension Specialist for four years at the College of Agriculture at Hebbal and to his Indian Assistants, D. Dwarakinath, K. A. Jalihal and Jade Srinivasamurthi. By both counsel and direct contribution they have assisted greatly in the composition of this book.

I. G. F.

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NOTES ON EXTENSION IN AGRICULTURE

Chapter 1

FOOD FOR INDIA—THE NO. 1. PROBLEM

After centuries of foreign domination and exploitation India became a free country only fourteen years ago — free for the first time in her long history to draft her own plans for the improvement of her people. Her leaders recognize that India is an underdeveloped country that has not shared in the industrial revolution of the last century that advanced living standards so greatly in Western nations. They want India to share in these advances and bring to the Indian people a richer and fuller and happier life and are formulating many sound plans for such development.

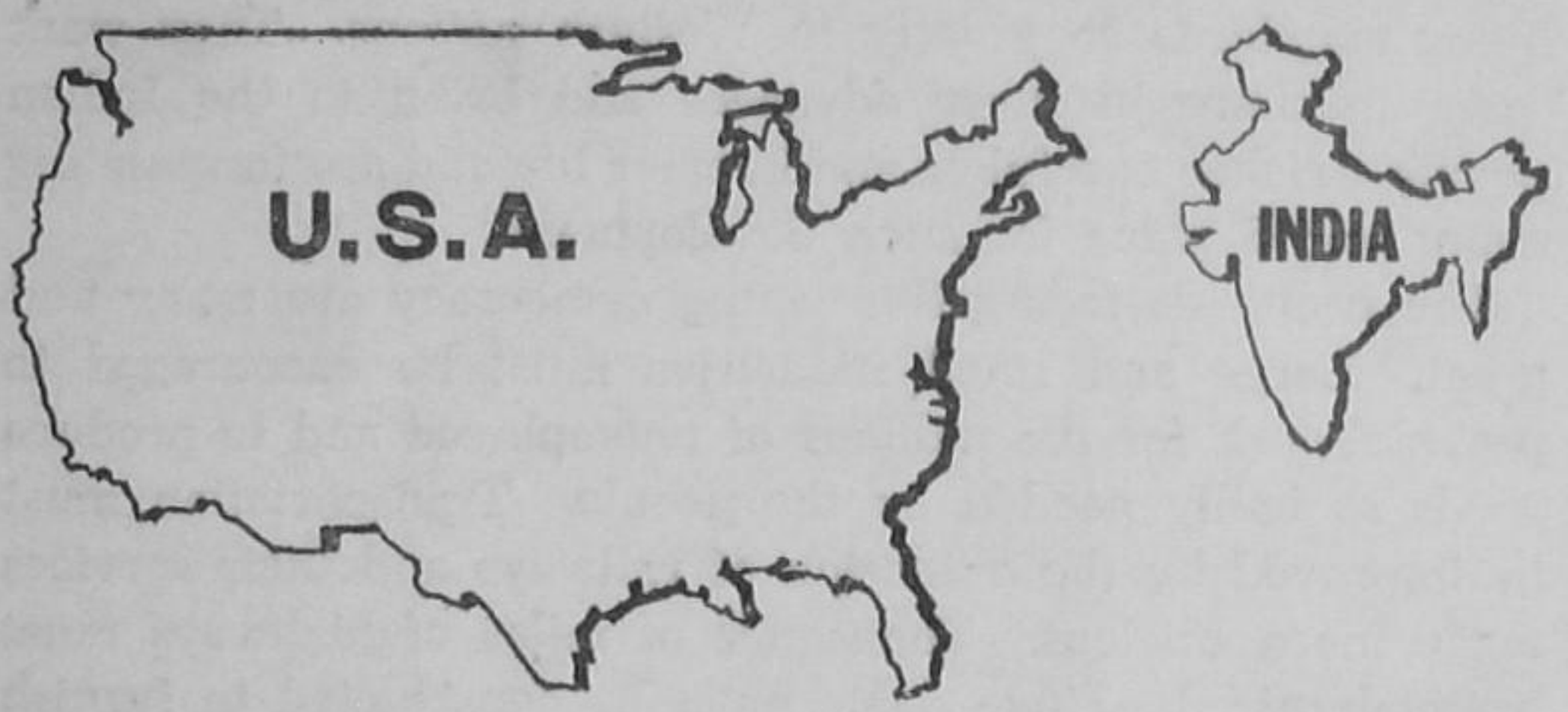
The problems facing this young democracy are many and great. Large and small industries must be encouraged to provide work for the millions of unemployed and to produce goods so badly needed by the people. Transportation must be improved by the extension of railways and their services made more efficient. Thousands of miles of highways must be modernized. Huge dams must be constructed to furnish both irrigation water and electric power. Medical services to the people must be multiplied many times and malaria, T.B., cholera and other killers be eradicated. Schools of all levels must be built by the thousands and tens of thousands of teachers must be trained that the new generation in India may be a literate people. These needs are great, but there is one need of still more immediate urgency—sufficient food to feed all the people, a full, wholesome and balanced diet.

For a number of years India has not produced enough food to feed its great population and has been compelled to import millions of tons of rice and cereals each year. A small part of these importations were gifts from the U.S.A. and other friendly nations, but a part was purchased in the markets of the world. The cost is a terrific drain on the

country's foreign exchange and seriously reduces the purchases of machinery and materials of all kinds so badly needed in the schemes for industrial development.

Let us consider some of the factors involved in the problem of assuring an ample food supply for the people of India for next year, for 10 years from now or for 50 years from now.

Sometimes by using comparisons a problem can be made more vivid. Let us compare the problem of producing sufficient food for India with the problem of growing food for America.



A COMPARISON BETWEEN THE UNITED STATES AND INDIA

U.S.:	2000 mil. acres 50 per cent produces food.	16 per cent of the world's cultivated land.
India:	813 mil. acres 35 per cent produces food.	5 per cent of the world's cultivated land.
U.S.:	Population 180 mil.	218 per square mile cultivated land.
India:	Population 400 mil.	660 per square mile cultivated land.

As an example of extreme density of population consider the State of Kerala.[1]

[1] The Indian Census of 1961 gives the density of population per square mile in Kerala as 1125.

Population 15 Mil. — (15,000 sq. miles) 1000 per sq. mile
(In one District) 4100 per sq. mile

U.S.: 6 acres farm land per capita.

India: ·97 acres farm land per capita.

(*Study Tour of U.S. and Israel* — THAKUR)

The above quoted study was made a number of years ago. The population of India according to the census of 1961 had increased to 438 millions, as reported in the *Times of India* (Bombay) March 28, 1961.

The population of America in that year had increased to 180 millions.

The above tables show that the U.S. has 6 acres of farm land per capita, India less than one acre. If the people of India are to be well fed every acre of farm land must be made to produce maximum crops.

PRESSURE OF POPULATION

The population of India is increasing at an ever accelerating rate.

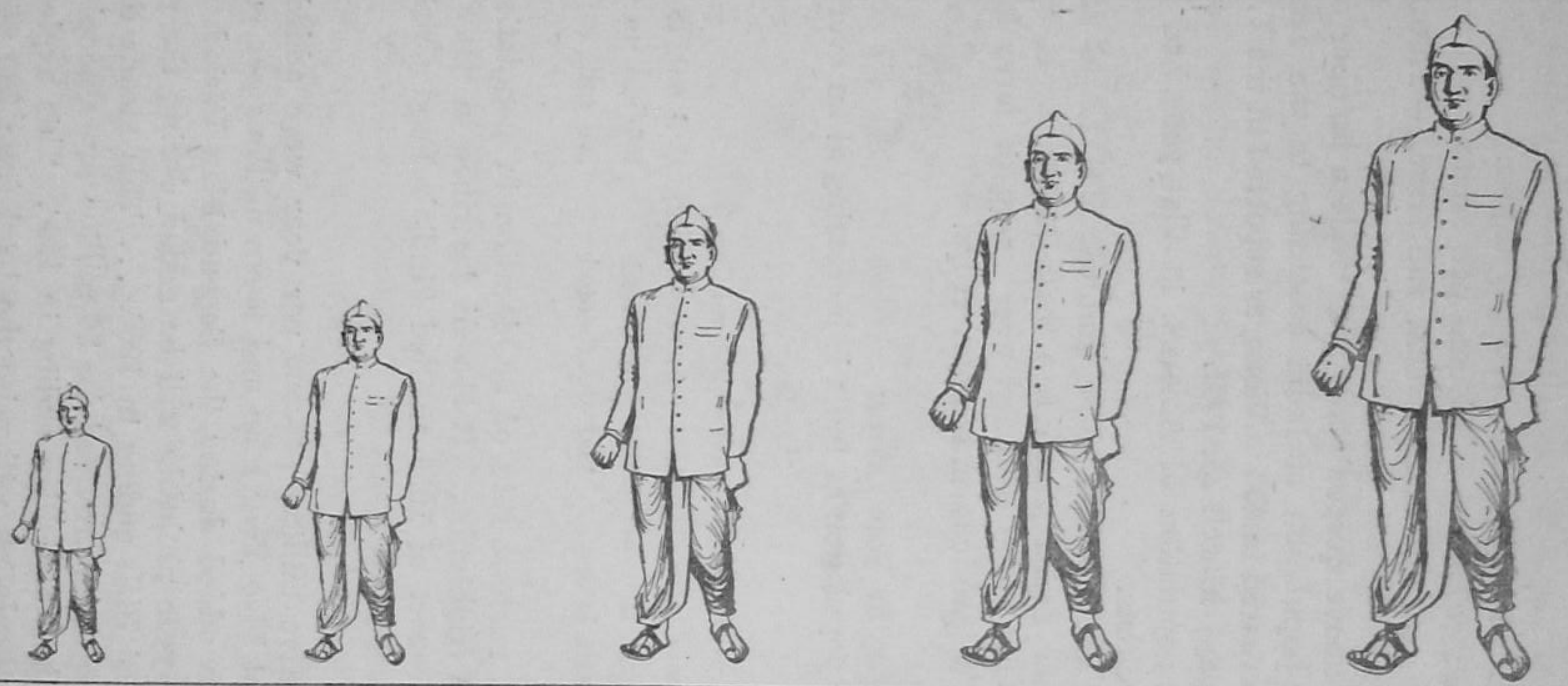
Indian population	1801	— 240 million	
30 years later —	1921	— increased only	12·2 mil. to 252 mil.
30 years later —	1951	— increased	108 mil. to 360 mil.
30 years later —	1981	— estimated	278 mil. to 638 mil.

The current rate of acceleration in population growth is almost frightening. It is well described in the *Ford Foundation Report* of 1959 entitled "India's Food Crisis and Steps To Meet It".

"Five million persons per year were added during the First Five Year Plan and seven millions per year will have been added during the Second Plan Period. Ten million per year probably will be added during the period of the Third Plan ending in 1966. ... This means that food will have to be provided for 80 million more people by the end of the Third Plan ending in 1966. This explosive increase in population will raise the total from 360 million in 1951 to an estimated 480 million by 1966."

POPULATION OF INDIA

1891	1921	1951	1961	1981
240 MIL	252 MIL	360 MIL	438 MIL	638 MIL ?

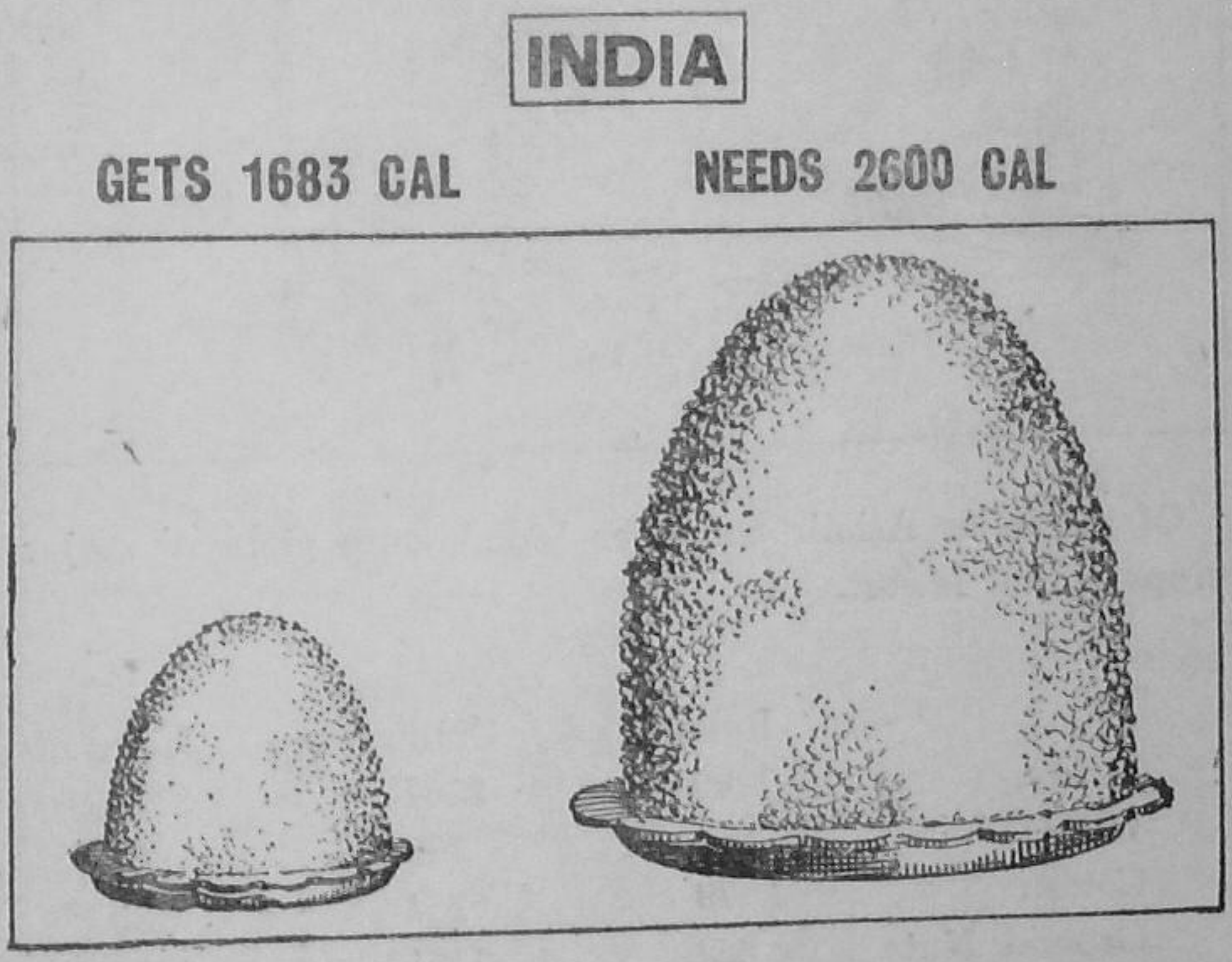


Starting with 360 million as the population of India in 1951, Ford Foundation Scientists estimated a population, in 1961, of 420 million.

The release of figures of the 1961 census showed a total population of 438 million. The Ford Foundation Scientists had been conservative in their estimate. Census figures exceeded their estimate by 18 million.

THE PRESENT INDIAN DIET IS INADEQUATE

The average person in India does not get enough food to maintain full, vigorous health. A study made by the Food and Agriculture Organisation of the United Nations reported that the average Indian gets only 1683 calories a day; to maintain vigorous health 2600 calories are needed.

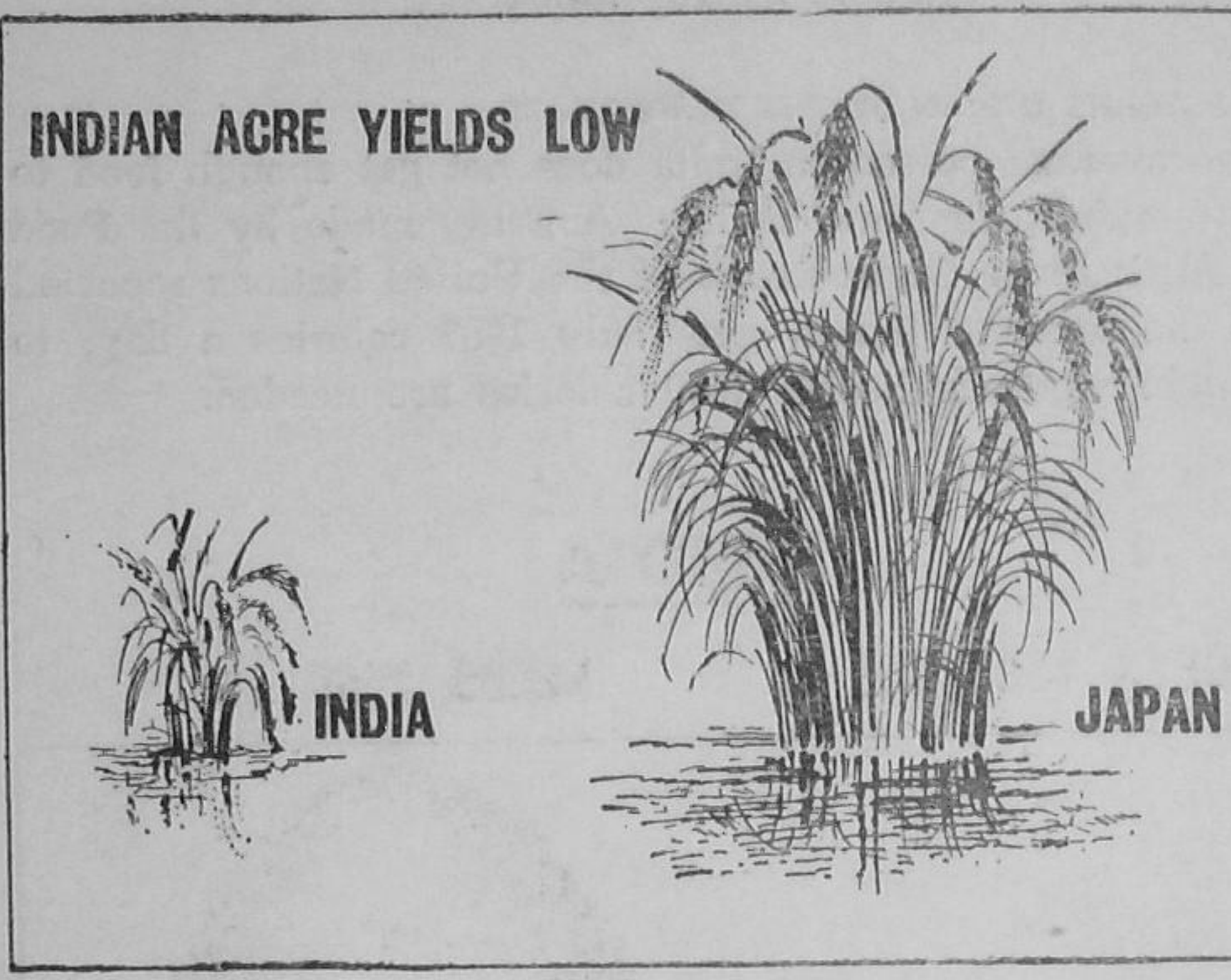


A norm of 370 pounds of food grains per person per year is believed necessary. Although the figure of actual consumption varies from year to year according to annual production and imports, in many years Indian people have consumed only 319 pounds of food grains per person. This is 14 per cent less than normal requirements. Consumption of proteins,

particularly animal proteins, so important for growth, health and energy is vastly more deficient.

(*Foreign Agriculture* — Vol. 18, 1954)

INDIAN ACRE YIELDS VERY LOW



Of all major Asiatic countries India's acre yield of major crops is the lowest.

	India	China	Japan
Paddy	1209	2387	3750
Wheat	640	766	1867
Cotton	79	234	89
Ground Nuts	822	1151	1434

(*Fertilizer News* — March, 1958)

Rice is extremely important in India. It is estimated that India has need for 30 million tons of rice each year. Yet the average yield of rice per acre in India has decreased over a long period of years.

Milled Rice

1881-90	1505	Not known
1901-10	1848	920
1921-30	2143	840
1941-50	2345	745

(*Foreign Agriculture* — Vol. 18-1954)

Study the above table. In 1901-10 Japanese production of milled rice per acre was 1848 pounds. In the next 40 years per acre yield increased by 497 pounds to 2345.

India's acre yield in 1901-10 was only half that of the Japanese, 920 pounds. Forty years later this average had decreased by 175 pounds to a figure of 745.

India's reported rice yield between 1941 and 1950 averaged only one half the reported rice yield in Japan in 1881-90 and only one third the Japanese yield in 1941-50.

Consider one last illustration of tragically low acre yields. Statistics on crop acre yields in pound per acre in the year 1958-59 in the Great State of Mysore are as follows :

Rice	—	1059	Groundnuts	—	625
Wheat	—	227	Tobacco	—	394
Cotton (lint)		66	Ragi	—	638
			Jawar	—	366

Production per animal unit is very low. Milk production per cow in India is only 361 pounds — in the U.S. average production is 5500 pounds. Yearly egg production per hen is 53 compared with 196 in the U.S.; and of wool about 2 pounds as compared to 6 pounds in Western countries.

(Inadequate and Inefficient Production of Agricultural Commodities in India-Agricultural Division T.C.M.— June 1958)

These figures are not pleasant; but courageous people face them squarely and search for a solution. They seek to find the reasons for low yields, then to draft corrective measures.

WHAT IS INDIA'S NEED IN FOOD GRAINS ? HOW MUCH IS PRODUCED ANNUALLY ? HOW MUCH HAS BEEN IMPORTED ?

The following table shows the production of food grains and the amount imported each year from 1950-51 to 1959-60.

Year	*Total Food Grains Production (Million Tons)*	*Production Imports (Million Tons)*
1950-51	50·02	2·12
1951-52	51·17	4·725
1952-53	58·27	3·864
1953-54	68·72	2·003
1954-55	66·96	0·830
1955-56	65·79	0·700
1956-57	68·75	1·420
1957-58	62·03	3·588
1958-59	73·50	3·174
1959-60	71·75*	3·500**

Source : *The Grain and Oilseeds Merchants' Association, Diamond Jubilee* (1960) *Commemoration Volume*, Appendix—11.

* Estimate, Source — *Commerce*, Annual number 1960, p. 200.

** *Commerce* December 1959, p. 1018.

Note that in the 10 years period 1950-1959 India to feed her people was compelled to augment home production by the importation of 24·92 million tons of food grains. Even though part of this importation may have been a gift from the United States or other friendly nations and part may have been purchased under very favourable terms, the cost has been a very heavy drain on India's foreign exchange, precluding the purchase of machinery and raw materials so badly needed in India's plan for rapid industrialization.

In each of the three successive Five Year Plans a target production for food grains was set.

1955-56	65·00 million tons.
1960-61	75·00 million tons.
1965-66	100·00 to 105·00 million tons.

Source : *Third Five-Year Plan, a draft outline*, Government of India, Planning Commission, June 1960, Annexure, p. 38.

The 1955-56 target was reached. The 1960-61 target was not reached.

The American scientists of the Ford Foundation Study were assisted by Indian specialists deputed to aid them. In their *Report on India's Food Crisis and Steps to Meet It* (1959) they made these comments on the 1965-66 target tentatively set at 100·00 to 105·00 million tons of food grains in the Third Plan.

"India is making steady progress in increasing food production but the rate of increase must be tripled to meet the Third Plan target. If India's food production increases no faster than present rates, the gap between supplies and target will be 28 million tons by 1965-66. This will be about 25 per cent shortfall in terms of need. No conceivable programme of imports or rationing can meet a crisis of this magnitude.

"A target of 100 million tons would permit a net daily consumption per person of 15 ounces of cereals and 3 ounces of pulses for the prospective population. This compares with the consumption in 1956-57 of 13·3 ounces of cereals and 2·4 ounces of pulses. A target at this level, therefore, would allow for some improvement in the diets of those who are now at bare subsistence levels, but it would not provide a safety margin for adverse weather nor for reserve stocks needed to stabilize prices and to meet other unforeseen emergencies. A target of 110 million tons is necessary to allow for these contingencies.

"In addition to food-grain production, any balanced agricultural programme should provide also for additional production of dairy and poultry products, fruits and vegetables to meet the demands of an expanding urban population and to permit gradual improvement in diets.

"But the conclusion is clear: the gap between needs for food grains as indicated by the Plan targets, and supply as indicated by production trends, is growing wider. The relatively favourable 1958-59 season failed to reach the annual average of the food-grain target by 4·3 million tons, and the 1957-58 crop was 9·3 million tons short. If food-grain production increases no faster than indicated by the present trend, the gap between supply and needs in 1965-66 will be about 28 million tons.

"In order to produce 110 million tons of food-grain annually by the end of the Third Plan, the rate of production increase must average 8·2 per cent per year for the next 7 years. This rate of increase compares with an annual average of 2·3 per cent from 1949-50 to 1958-59, and an average of 3·2 per cent from 1952-53 to 1958-59. The task is overwhelming."

WHAT CAN BE DONE TO INCREASE INDIAN FOOD PRODUCTION ?

Food production in India can be greatly increased. Indian scientists believe that over a period of years:

1. There can be an increase of cropped land, including expansion of double cropping, of 30 million acres, which would increase food production by 3·4 million tons per year.
2. Irrigation can be extended to 40 million acres with a resultant increase of 6·9 million tons of food.
3. Improved methods in soil preparation, better varieties, use of chemical fertilizers, green manures and diseases and pest control measures would boost production by 10·3 million tons.

Three methods are suggested for increasing food production in India. The present area of crop land may be expanded but within a few years all possible crop land will have been reclaimed. Irrigation can be extended but again within a few years all possible sources of water will have been utilized.

The one method by which food production can always be increased is through the application on the land of the improved, scientific methods developed and proved by Research Institutes. The flow of new scientific discoveries, of better varieties, more efficient fertilizers, more effective insect and disease controls need never end.

The hope for ever increasing food production for all years ahead rests largely on three agencies.

(1) Research Institutes with teams of highly trained researchers who will develop ever newer and more efficient methods in food productions.

(2) Colleges of Agriculture that will teach the most efficient methods in all phases of farming to young men and train them for teaching, for research or for service in extension.

(3) An extension organization that will carry to the cultivators the more efficient methods developed by the scientists and bring about their employment on the millions of farms in India.

On the shoulders of agricultural extension rests the grave responsibility of teaching cultivators scientific methods of production that if universally employed, could easily double the current levels of production. No work in all India is of greater importance.

Questions for Study and Discussion

1. Six major problems facing India were mentioned in the second paragraph. There are many more. Make a list of other problems of major importance that affect the happiness and welfare of the people of this nation. What action would you recommend toward the solution of each?

Do you believe any of them are of such immediate importance as increasing the supply of food for the nation?

2. In 1776 when America became a free nation nearly 90 per cent of her people were farmers. By 1800 only 75 per cent. By 1900 only 40 per cent. By 1960 only 12 per cent. By 1980 it is estimated that only 6 per cent will be farming, yet they will produce an abundance of food for all.

By contrast 69 per cent of the people in India were engaged in food production in 1951.

What factors in the development of America brought about an ever declining percentage of population engaged in food production?

Could similar factors be developd in India?

3. Life expectancy in India is increasing. A few years ago, it is said to have been 28 years. It has risen to 32 years. What factors are bringing this about? What effect will ever increasing life expectancy have on growth in population?

4. Indian scientists predicted that by 1980 the population of India will be 520 million. This estimate was made quite a few years ago.

In the *Ford Foundation Report* (1959) scientists stated that the population of India in 1951 was 360 million; they estimated

that in the next 5 years population increased by 5 million each year; that from 1956 to 1961 the increase was 7 million each year; that the increase is now 10 million each year.

If these estimates are correct and the yearly increase holds constant at 10 million per year, what will be the population of India in 1980 ? In the year 2000 ?

Do you believe science can always devise still newer and more productive methods that will furnish sufficient food for a world population that is doubling every 50 years ? If not what solution can be found to ever increasing population?

5. What reasons can you give why India's average acre yield of principal crops is the lowest of any major nation ?

6. All studies have shown that people in all underdeveloped countries in the world now get 15 per cent less food per person per day than before World War II. What reasons can you give for this serious reduction ?

7. In this chapter has been emphasized the imperative need for greatly increased food production. This necessary increase can be achieved.

India is rich in many assets that a well fed people can develop, that will lead to a much higher scale of living for all. Make a complete list of the rich assets possessed by this country. For example India has very large deposits of coal, of iron, and of manganese.

REFERENCES

Brunner: *Farmers of the World.*
Ensminger: *Freedom from Hunger.*
Spencer Hatch: *Toward Freedom from Want.*

Chapter 2

WHAT IS EXTENSION?

WE HAVE seen that:

1. India for some years has not produced enough food for her own people and has had to import millions of tons of cereal grains each year. The payment for such imports is a serious drain on her foreign exchange.

2. It is the testimony of Indian experts that the average person in India does not get sufficient food to maintain full, vigorous health.

3. The rapid growth in population of an estimated ten million each year brings a yearly demand for increased food for more than two million tons each year.

4. The average acre yield of major crops in India is deplorably low.

5. It is possible to bring a considerable acreage of new land under cultivation and to extend irrigation to some millions of acres. This will entail great public works programmes and will take years for accomplishment.

6. The only way by which a major and an immediate increase in food production can be attained is by the introduction of improved, scientific methods of production on the farms of the millions of cultivators in India. This can be developed only by vigorous Extension Service.

WHAT IS EXTENSION, ITS PROCESS AND PHILOSOPHY?

"Extension Service in agriculture and home economics has been defined in different words by different leaders yet all agree on fundamental principles.

"Co-operative extension work in agriculture and home economics assists people engaged in farming and home making to utilize more fully their own resources, and those available to them, in solving current problems and in meeting

changing economic and social conditions. Through the educational and service approach rural people are stimulated to make changes that result in more efficient production and marketing of farm products, conservation of natural resources, more comfortable homes, improved health, and more satisfying family and community life." (*U.S.D.A. Circular*, 495-Extension Teaching Methods).

"The purpose of extension teaching in agriculture and home economics is to establish a branch of education for people not in college, that will take to them information, ideas, and suggestions that will encourage and help them to make farming more profitable, farm homes more comfortable, and rural communities more satisfying. It is intended to make sure that farm people ... shall never become peasants." (*Teaching Agriculture*—Hammonds).

Agricultural Extension strives:

1. To bring the farmer the knowledge and help that will enable him to farm more efficiently and to increase his income.
2. To encourage the farmer to grow his own food, set a good table and live well.
3. To help the members of the farm family to a larger appreciation of the opportunities, the beauties, and the privileges of country life and to know something about the world in which they live.
4. To promote the social, the cultural, the recreational, the intellectual and the spiritual life of rural people.
5. To place opportunity before rural people whereby they may develop all their native talents through work — recreation, social life and leadership.
6. To build a rural citizenry, proud of its occupation, independent in its thinking, constructive in its outlook, capable, efficient, self-reliant, with a love of home and country in its heart.

Kelsey and Hearne—*Co-operative Extension Work*

1. Extension is education for all village people.

2. Extension is changing attitudes, knowledge, and skills of all the people.
3. Extension is working with men and women, young people and boys and girls, to answer their needs and their wants.
4. Extension is "helping people to help themselves".
5. Extension is "learning by doing" and "seeing is believing."
6. Extension is teaching people what to want, as well as how to work out ways of satisfying these wants and inspiring them to achieve their desires.
7. Extension is the development of individuals in their day-to-day living, development of their leaders, their society and their world as a whole.
8. Extension is working together to expand the welfare and happiness of the people with their own families, with their own village, their own country and the world.
9. Extension is working in harmony with the culture of the people.
10. Extension is a living relationship between the village workers and the village people. Respect and trust for each other, sharing of joys and sorrows, result in friendship through which village extension work continues.
11. Extension is a two-way channel — It brings scientific information to the village people and it also takes the problems of the village people to the scientific institutes for solution.
12. Extension is a continuous educational process in which both learner and teacher contribute and receive.

Ensminger : *Guide to Community Development*

Under a Dictatorial form of Government, changes are brought about by command. The people are not consulted. They are told what they must do and the orders of Government agents are rigorously enforced.

Extension is democratic. It seeks to bring about desirable changes through reason, through persuasion. The final decision is always left with the individual.

The democratic principles of Extension are well expressed in a paper presented at the Southern Regional Extension School, Arkansaw. This adaptation was made by Dr. J. H. McLeod, Extension Specialist, College of Agriculture, Hebbal, and his Indian assistants, Dwarakinath, K. A. Jalihal and Jade Srinivasamurthi.

"What May Be Expected From Extension" is also taken from their notes.

Democratic Principles of Extension

1. Extension has a philosophy of *democracy and culture.* It respects the culture of the people. It brings about a cultural change through cultural development.
2. Extension has a philosophy of *education for all.* It disseminates useful practical knowledge to all people regardless of their sex, age, caste, occupation, social status or economic standing.
3. Extension has a philosophy of *social progress*:
   (a) Its work is based on the needs and desires of the people.
   (b) Its work starts from where the people are and from what they have and know.
   (c) It facilitates change and helps people to adjust to them.
4. Extension has a philosophy concerning *teaching*:
   (a) What we hear we may doubt, what we see we may possibly doubt. But what we do, we believe — it teaches by help.
   (b) It teaches people to practise themselves.
   (c) It encourages people to think for themselves.
   (d) It considers that the teaching is inadequate until the knowledge is put into practice.
5. Extension has a philosophy of *leadership*:
   (a) It reaches, stimulates and educates people through local leaders.
   (b) It utilizes the assistance of voluntary leadership in its work.
   (c) It locates, trains and uses functional leaders.
   (d) One of the values of extension work lies in not what it does but what it can get others to do.
6. Extension has a philosophy of *local responsibility*:
   (a) It encourages people to take increasing share of conducting their own affairs.
   (b) It prepares suitable leaders amongst local people to determine *what* is to be done, *when*, *how* and *who*.
7. Extension has a philosophy about *truth*:
   (a) It sells ideas which are proven facts.
   (b) It realizes that going beyond truth will result in people losing faith in Extension.
   (c) It continually seeks new truths — the whole truths of to-day may be partial truths of tomorrow.
8. Extension has a philosophy of *democracy*:
   (a) It functions only with the voluntary co-operation of the people concerned.
   (b) It co-operates with the individuals, groups and institutions interested in common welfare.

(c) It selects and solves the problems through group action, which is based on the felt needs of the people and which involve their participation.
(d) It is democratic in its organization.

9. Extension has a philosophy of the *dignity of the individual and his profession*:
(a) It believes that each individual is endowed with certain inalienable rights.
(b) It dignifies the farm, home and family.
(c) It holds that more important than the changed practice is the changed man.

10. Extension personnel have *philosophical characteristics*:
(a) It has men who possess the right attitude, integrity and a high sense of service.
(b) It has men who have a deep faith that "man does not live by bread alone."

What May Be Expected of Extension

I. Extension increases farm yields and improves the standard of living:

(1) It teaches villagers to enhance their *incomes* from their existing occupations by application of improved skills and methods.
(2) It teaches better methods of utilisation, development and conservation of local resources.
(3) It introduces and promotes new ways and sources of additional income.
(4) It encourages farm families to provide more of their family needs in the home.

II. Extension makes good communities better and progressive:

(1) It promotes programmes in the fields of education, health and co-operation.
(2) It educates rural people to recognise as well as to solve their own problems.
(3) It teaches them self-reliance, and gives them greater faith in their profession, as also greater hope in securing and enjoying the better things in life.
(4) It gives farm people a broader view of life and deeper understanding of human relationships.
(5) It creates better citizens, and develops fellowship and good public relations.

(6) It locates, develops, trains and uses local functional leadership.
(7) It teaches rural youth the principles of good agriculture and home-making; it guides them in the development of personality and character building; it gives them a new vision of life and a hope of the future.

III. Extension contributes to national development programmes:

(1) It increases the food and fibre production in the country.
(2) It thereby stimulates the growth of secondary industries and production of consumer goods.
(3) It promotes development of transport, highways, railways, service stations, etc., as incidental to enhanced production on farms and in industries.
(4) It provides more employment and better wages in agriculture and industries.
(5) It decreases imports and increases exports by stepping up the production of food, fibre and factory yields.
(6) It helps to bring about a balance between agriculture and industry.
(7) It gradually raises the levels of per-capita and national income.
(8) It eventually becomes responsible not only for the economic improvement of the vast majority of the rural population but also for the improvements of social and cultural aspects.

Perhaps we can formulate our own definition of Agricultural Extension that will be a little shorter.

Extension in agriculture and home economics is an educational service organized, directed and financed by Government. It is designed to bring to the farmers of the nation and their families through the services of highly trained extension personnel the knowledge of scientific methods developed in Colleges of Agriculture and Research Institutes that will lead to greater farm production and higher family income and make possible home improvement in diet, amenities and health. It fosters pride in workmanship, satisfaction in country life and promotes co-operative effort among rural people in improvement of the social, the recreational and the cultural life of the village and community.

MEANING OF EXTENSION

1. EDUCATION FOR ALL.
2. CHANGING ATTITUDES, KNOWLEDGE AND SKILLS.
3. WORKING WITH MEN, WOMEN AND YOUTH.
4. HELPING PEOPLE TO HELP THEMSELVES.
5. 'LEARNING BY DOING' AND 'SEEING IS BELIEVING'.
6. TEACHING PEOPLE WHAT TO WANT AND HOW TO WORK OUT WAYS OF SATISFYING THEM.
7. DEVELOPMENT OF INDIVIDUALS, THEIR LEADERS AND SOCIETY.
8. WORKING TOGETHER TO EXPAND THE WELFARE AND HAPPINESS OF THE PEOPLE.
9. WORKING IN HARMONY WITH THE CULTURE OF THE PEOPLE.
10. LIVING RELATIONSHIP WITH THE CULTURE OF THE PEOPLE.
11. A TWO WAY CHANNEL.
12. A CONTINUAL EDUCATIONAL PROCESS.

Source:—'A guide to community development' (1957) issued by the ministry of community development Govt. of India.

Questions for Study and Discussion

1. It has been emphasized that Extension is "out-of-school" education. Would you regard an extension agent as a teacher ? Who are his students ? Where is his classroom ? What is his syllabus ?
2. Should Extension people ever be asked to do work that is non-educational, such as taking charge of the distribution of seeds or fertilizer ?
3. No country in the world has yet set up an extension system for educating out-of-school city people. How, then, can money raised by taxation of all the people be justified when used for the support of an agricultural extension system that serves only rural people ?
4. In his work with villagers should an extension worker carefully avoid discussion of politics ? Of local superstitions ? Of factors of disunity in a village such as caste ?
5. Do you believe that a major objective of extension should be to help cultivators increase their cash income ? Why ?
6. When science through repeated experiments has proved conclusively that certain traditional beliefs are untrue, how can an extension worker persuade villagers to discard age-old beliefs or methods and place confidence in science?

ADDITIONAL REFERENCE

Bliss: *The Spirit and Philosophy of Extension Work.* — *Extension Experience with Human factors in Agricultural Areas of the World* — Ford Foundation Publication.

Chapter 3

THE DEVELOPMENT OF AGRICULTURAL EXTENSION IN AMERICA

INDIA has many things in common with the United States of America. Both are large countries, both composed of people of widely differing language, cultural and religious backgrounds. Both are dedicated to the principles of representative government, parliamentary democracy and meaningful freedom of the individual citizen. Both were for well over a century colonies of Great Britain and developed their legal, judicial and administrative system by modifying those of Great Britain and adapting them to their own needs. Starting from a very low level of economic development the United States has achieved to an outstanding degree the economic and agricultural development which India is now working so hard to get underway. The Agricultural Extension Service has contributed very greatly to this development in the United States. Therefore, an examination of the development of Agricultural Extension in America is very instructive.

THE EVOLUTION OF AMERICAN AGRICULTURE

In 1776 the two million settlers, largely immigrants from England, who had established themselves along the Atlantic Sea board of the new world chafed under the harsh colonial policies of the mother country. They declared their complete independence and for several years fought a bitter war to establish their freedom.

Nearly ninety per cent of the people lived on farms. Land was readily available, often free for the asking; to the west stretched a great unknown continent with hundreds of millions of fertile acres awaiting the plough. Labour was scarce. There immediately developed the outstanding difference between agriculture in the Old World and the New World. In

Europe and Asia emphasis was placed on yield per acre; in America on production per man. This difference still holds true.

By 1800 about one quarter of the American labour force had found work in cities and three quarters were on the land. Agriculture was still in the primitive stage of the bullock team, the sickle and the flail. Farm work was drudgery. Over the years improvements came slowly. Bullock power was gradually replaced by horse power and just before and after 1850 came reapers, mowers and other horse-drawn implements multiplying production per man and liberating more of the labour force for work in cities. By 1900 only 40 per cent of American labour was in agriculture. At a rapidly accelerated rate from 1880 to 1910 came ever more efficient horse-drawn machines. Then came the tractor and power machines that brought on a complete revolution in American agriculture. By 1920 only 25 per cent of Americans worked on the land. By 1958 ample food for the nation plus an abundance for export was produced by only 12 per cent of American labour engaged in farming and it is confidently predicted that by 1980 only 5 or 6 per cent will be needed on farms to fully meet the nation's need for food and fibre.

The standard of living of a nation can be raised only a little by food alone. For happiness in living the people of a nation have innumerable needs for electric power, telephones, good roads and cars, better homes and furnishings, hospitals, doctors and dentists, radios and pianos—human wants are endless. It is impossible to provide the goods and services that collectively constitute a high standard of living unless a relatively small per cent of the labour force of a nation can by modern methods produce an abundance of food for all, liberating a high per cent of labour for the production of the goods and services needed and wanted by the people.

THE DEVELOPMENT OF AMERICAN AGRICULTURAL EXTENSION

In the first hundred years after the birth of the American nation little progress was made in the science of agricultural production. Settlers opened up vast areas of the new country. The rich Mississippi Valley in the central part of the U.S. was brought under the plough and the western plains were

dotted with cattle. Americans are an inventive people and new machines were continually developed for farm use. Horses replaced bullocks as farm power. The steel plough was devised. The reaper and mower followed. Each machine multiplied the production capacity of a worker. But there was little progress in man's ability to combat crop diseases, to check insect damage or in his knowledge of fertilizers or soil conservation.

A number of colleges had been established in America but they served only the privileged few who were preparing for a profession in law, medicine or theology. They scorned the thought of preparing young men for careers in agriculture or industry. They entertained doubts that the study of science was truly educational.

The great mass of American people grew restive. They demanded of Congress that colleges be established in which the sons of farmers and young men in trades and industries could be trained for careers in the fields of their choice. In 1862 Congress passed the Morril Act. This Act, together with subsequent supporting appropriations, revolutionized college objectives in America.

BASIC LEGISLATION

The Morril Act, or Land-Grant College Act as it is sometimes called, offered to each State a large grant of public land if the State would establish a college for instruction in agriculture and the mechanic arts. The response was immediate. By 1870 thirty-six such colleges were established and today the number has grown to sixty-nine. It should be noted that while the Federal Government gave generously for the establishment of these colleges no control over the colleges was retained. To each State was left the management and administration of its own college.

It soon became evident, however, that these colleges had too little to teach that would help young men solve their practical problems in running a farm. They studied courses in mathematics and basic sciences but little was taught of direct, practical methods that would make farming more productive. The general outcome of study in agriculture in the Land-Grant Colleges was disappointing.

The national Congress recognized this defect and in 1887 passed a new law that had far reaching effects. It was called the Hatch Act. It provided Federal money for the establishment in each State under the direction of the College of Agriculture of an Experiment Station or Research Institute where the best scientists in the nation would be employed to carry on studies and experiments in all phases of agricultural production. The scientists went to work with enthusiasm in studying the practical problems of farming. Slowly at first, then in an ever increasing volume, they applied their knowledge of basic sciences to farm procedures and developed new and better varieties of crops, treatments that would check grain diseases, effective insecticides, new fertilizers. Problems of land conservation were studied. New methods of breeding, feeding and disease control in livestock and poultry were tried and proved.

Colleges of Agriculture now had an abundance of materials to teach that were directly applicable to farming.

It should be noted again that the control and administration of the Experiment Station in each State was given to the State College of Agriculture. The Federal Government gave each State a large amount of money to carry on the work of the Experiment Stations but the control and direction of the work was left to the College of Agriculture. The Federal Government asked only that the State draw up plans in advance as to the kinds of experiments to be carried on and have such plans and reports of progress approved by experts in the United States Department of Agriculture (U.S.D.A.)

EARLY EXTENSION TRIALS

Colleges of Agriculture had been established. Experiment Stations were continually developing practical methods for meeting farm problems in all fields and the colleges were teaching the new discoveries to the farm young men who enrolled, but no way had been devised to teach these new and superior production methods to the thousands of farmers in every State. How could a line of communication be established to the farmers from the College of Agriculture and the Experiment Stations it directed, that would carry the new and improved methods to the individual farmer in every

part of the State? With every new discovery this problem became more acute.

Colleges of Agriculture and progressive farmers every where were keenly aware of this problem. In some States an improved method proved by the Experiment Station was carefully described in a bulletin which would be sent free to any farmer on request. Some colleges directed certain professors to go out in the State to conduct a one to three day Farmer's Institute where farmers could discuss with them their problems and be given help in their solution. Various Agricultural Societies invited speakers from Agricultural Colleges to lecture at their meetings on improved ways of farming.

Seaman A. Knapp, scientific farmer, later a professor at Iowa State College of Agriculture and for a short period its president, believed that most farmers were not convinced of the value of a new method in farming by reading about it in a bulletin nor in hearing about it in a lecture. Farmers were willing to employ a new idea in farming only after they had actually seen it carried out in a demonstration. Shortly after 1900 great damage was suffered by cotton growers from attacks in their fields by a destructive insect called the boll-weevil. Congress made an emergency appreciation of 40,000 and directed Dr. Knapp to employ agents to put on demonstrations on farms that would show farmers how good cotton crops could be grown in spite of the weevil. Twenty agents were employed for work in three cotton growing States. The demonstrations they conducted were highly successful and the principles of teaching by demonstration was soundly established.

An insistent demand for a Service that could keep all farmers in constant touch with the new discoveries of the Experiment Stations continued to grow. In 1806 a county in the State of Texas employed the first full time county agent.

Two years later 157 agents were employed in all States and by 1910 the number had grown to 450.

National recognition of the need for a countrywide Extension Service resulted in the passage by Congress of the all important Smith-Lever Act in 1914. This law provided

generous financial assistance to all states for the establishment of an Extension Service. The conditions were both wise and simple.

1. The Land-Grant College of Agriculture in each State would be responsible for the organisation and administration of the programme.
2. Plans for the work should be mutually agreed upon by the land-grant College and the U.S.D.A.
3. All teaching by extension agents should be designed for persons not attending college, with no limitation as to age, sex or race and should be "The giving of instruction—in agriculture, home economics and subjects related thereto."

By this law was established the system of Agricultural and Home Economics Extension that in the U.S. has grown until it reaches every part of the nation and is the largest system of out-of-school education ever established.

Questions for Study and Discussion

1. Have a class member stand at the black-board and, as the class suggests them, make a list of many things each would like to have in his home that would make living happier for the family. Next list all of the services that should be available for the health of the family and for enjoyment of living.

Approximately 70 per cent of the labour force in India is engaged in farming but do not produce quite enough food for the nation. Can less than 30 per cent of the labour force in cities produce the goods and service so badly needed and wanted by all of the people ? What adjustments must be made ?

2. For the good of the nation should every college student be enrolled in such courses that lead to a practical profession such as agriculture, engineering, medicine, or law ?

Should students who so prefer be allowed to study only history or philosophy or other courses that have no immediate practical use ?

3. In all American Universities the right to determine entrance requirements, length and content of courses, required courses leading to different fields of specialisation, teaching procedures and examinations is left to the individual university or college.

Do you believe that Colleges of Agriculture in India could teach agriculture more effectively, if there was less rigid directions from State Government and a greater freedom on the part of each College in writing its own syllabi, organizing its own courses and composing its own examinations ?

4. You are in your final year of work in a College of Agriculture. From your experience what suggestions would you offer for improvement in training young men for careers in agriculture ?

REFERENCES

Kelsey & Hearne: *Cooperative Extension Work*, chaps. 1-2.
Bliss : *Spirit and Philosophy of Extension Work*, chaps. 1-2.

Chapter 4

ORGANIZATION OF EXTENSION IN THE UNITED STATES

A BRIEF study of the organization of Extension in the U.S. may be profitable to Indian students. There is no implication whatever that American organization should be adopted in India. Rather it is hoped that earnest study of the American Extension Service will show certain strong and successful features that might well be modified to Indian conditions while weaker or more cumbersome features may be avoided.

Three points that have so far been studied are worthy of review.

1. The Federal Government gave to each State very substantial assistance in building a land-grant College but retained no control of the organization or administration of the College.
2. The Federal Government gives generous amounts each year to each State to support the work of the Experiment Station. Each State is required to draw up detailed plans for the expenditure of this money after consultation with experts in the U.S.D.A. After joint approval of the plan the administration and direction of the Experiment Station is solely the responsibility of the State represented by its College of Agriculture.
3. The Smith-Lever Act of 1914, together with several subsequent Acts that increased the total amount of appropriations, gives annually to each State a large sum of money for the support of Agricultural and Home Economics Extension in the State.

The Extension system in each State is a department of the College of Agriculture, is organized and directed by the

college and again is free of Federal control save for the provision that careful plans for the expenditure of the money must be drawn up by a State Committee in consultation with experts from the Extension division of the U.S.D.A. and be jointly approved. This provision for consultation and approval by the Extension division of the U.S.D.A. is a wise provision. The U.S.D.A. employs experts with broad experience and training who are familiar with the special needs of each State but further have a broad understanding of national extension problems. Their sympathetic counsel is welcomed by the States.

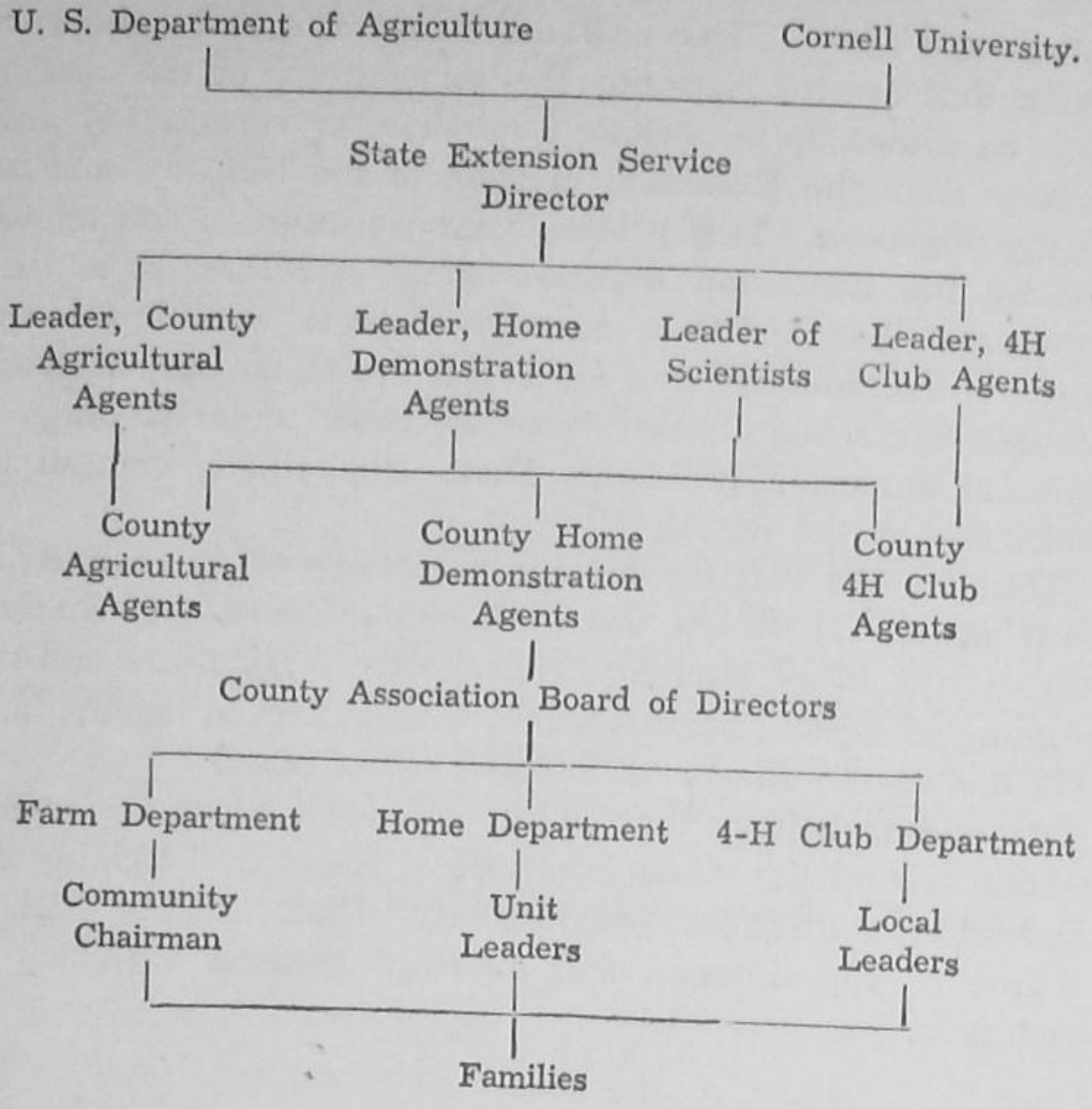
Thus we see that the land-grant college of Agriculture in each State: (1) directs the work of the Experiment Station, (2) carries on all teaching in the field of agriculture and the training of agricultural teachers and extension agents and (3) directs the Extension Service in the State.

Americans believe that uniting in one College under one administration the three functions of Reseach, Teaching and Extension centralizes responsibility, leads to the highest degree of co-ordination and develops greatest efficiency in each field.

ORGANIZATION OF EXTENSION

Extension in the United States is a vast co-operative service involving the U.S.D.A., the individual States and individual counties within each State. (A county is an administrative sub-division of a State, varying widely in area but embracing an average of between 2000 and 3000 farms). Many millions of dollars of Federal, State and County funds are spent each year in its support. A clear cut line of administration is necessary for efficient service.

With minor variations in different States the line of responsibility is quite uniform. A diagram of the Co-operative Extension Service in the State of New York, showing three co-ordination lines of work from the State to the county and to farm families is shown as an example:



FINANCING CO-OPERATIVE EXTENSION SERVICES IN THE U.S.

Co-operative Agricultural Extension is financed in part by the Federal Government, in part by State appropriations and in part by county funds. In addition in some States certain farm organizations make a contribution. The following Table shows the per cent of the total cost of extension services contributed by each of the four contributing agencies in 1960.

Federal Government	..	38 per cent.
State	..	38 „ „
Local County	..	23 „ ,
Farm Organizations	..	1 „ „

GROWTH IN EXTENSION

The national coverage of extension education that began with the passage of the Smith-Lever Act in 1914 met with

the immediate approval of the national, both rural and urban. It has experienced a tremendous growth.

Total expenditure for Extension in 1915 were, 3·6 million dollars. Total expenditure for Extension in 1960 were 140·0 million dollars. 1068 County Agents and 350 Home Demonstration Agents were employed in 1915. In 1949 the number has increased to 5042 County Agents and 3435 Home Demonstration Agents.

In 1949 total Extension personnel excluding U.S.D.A. was 11,810.

Questions for Study and Discussion

1. Do you believe that India should continue to build her extension system until every part of the nation has complete coverage ?

Would probable improvement in farm production and farm income justify the cost ?

2. How should the cost of extension in India be met ? Should the Central Government pay all the costs ? Should the Central Government pay part of the cost and State Government the balance ?

Should each Block be taxed for part of the cost of its own extension services ?

3. Do you believe that centralizing the responsibility for agricultural teaching, agricultural research and agricultural extension in the College of Agriculture would lead to greater coordination, co-operation and efficient administration than by having separate departments of State Government responsible for each division ?

4. Divide the class into 4 committees. Have each committee make a study of extension services in one of these four countries — Denmark, Israel, Phillipines and Greece. The chairman of each committee should then lead a discussion with the entire class on the strong points and the weak points of extension service in the country studied by his committee.

REFERENCES

Kelsey and Hearne : *Co-operative Extension Work*, Chaps. 3-8.

Bliss : *Spirit and Philosophy of Extension Work*, Chap. 4.

Agricultural Extension Methods and Community Development Programmes in India — Department of Agriculture in Mysore — Information Booklet No. 6.

Chapter 5

THE COUNTY UNIT IN AMERICAN EXTENSION

We have traced the line organization of extension administration from the U.S.D.A. to the dean of the College of Agriculture, to the Director of Extension and his assistants and down to the County Agent.

The County is the unit of actual extension work. One or more County Agents are employed in each County. Men are selected who have had farm experience and who hold a degree in Agriculture from an accredited College of Agriculture. The County Board must appropriate money to furnish an office, a typist and to meet the travelling expenses of the agents. In many cases they add money to the amount received from State and Federal Funds to give the agent a higher salary.

In a small County or in a County that is agriculturally poor, one County Agent only may be employed to carry on all phases of extension work. Counties with richer resources may add a 4H Club Leader, a Home Demonstration Agent and sometimes specialists in dairy science, poultry or farm management. These several agents work as a team usually under the direction of the Senior County Agent.

In nearly all Counties the County Agent plans his work with the help of an Advisory Council of leading farmers and agricultural leaders. The membership of this Council may be by appointment by the County Board Agricultural Committee or by a leading farm organization in the County or perhaps in some cases by invitation of a County Agent. At the beginning of each year this Council helps the County Agent plan a programme of extension work for the coming year. General extension work is always carried on and the extension staff is at the call of any farmer for help on any

farm or home problem. Each year, however, some special field for improvement is selected for special emphasis on a county-wide basis. One year it may be a drive to persuade farmers to apply lime to acid soils; another year to increase the acreage of alfalfa, or to produce higher quality eggs, to test dairy cattle for production, to make use of artificial insemination in breeding better cattle or to treat seed grains to eliminate losses by smut. All extension methods are employed in reaching the set goal — personal contacts, demonstrations, group meetings, radio and newspaper publicity and the wide use of local leaders.

In the early days of extension work farmers were sceptical and were suspicious of recommended newer methods. They seldom came to a County Agent and sometimes sneered at his advice as being merely "book learning". Under such conditions personal contact with a farmer was most effective and a goodly share of a County Agent's time was spent in farm visits. Such work is fruitful but takes so much time that only small numbers of farmers could be reached. Today with widespread confidence on the part of farmers in extension recommendations, a County Agent depends largely on group meetings, on newspaper contacts, on radio and television as channels of communication, on office and telephone calls and on supplying specific bulletins to individual farmers in need of help on specific problems. Each year he uses more local leaders as assistants.

It is estimated that American Extension Agents each year:

A. Make 20 million personal contacts by farm visits, office calls and telephone calls.
B. Contact 75 million individuals in group meetings.
C. Train 1 million local leaders.
D. Release 900,000 educational news stories.
E. Give 165,000 radio talks.
F. Distribute 23 million bulletins.

There are several fundamental differences in the American Extension system and Community Development in India that must be carefully considered when any comparisons of the two systems are made.

1. A nation-wide extension service in America has been in operation for more than forty years with opportunity to profit by early mistakes and each year make its work more efficient. India has yet had very few years experience with Community Development.
2. When a national extension system was established in America in 1914, it was designed for service to farm people only. It concerns itself solely with problems of the farm and the farm home. Since American farmers do not cluster in villages but each lives on the land he farms there were no village problems seeking solution. Farm water supplies with few exceptions were pure and adequate. State and County Public Health Officers were ever alert to control communicable diseases. A rural school was within reach of nearly all farm children and compulsory attendance laws assured farm children, an education through the first eight forms. (In most states such laws were later amended to require school attendance of all young people through four years of high school). American Extension, therefore, is agricultural extension only. It concentrates its efforts in bringing to the farmer the most scientific methods of producing crops and livestock and to the farm home instruction in balanced diets, cooking, food preservation, serving, home decoration and in all the arts that make for happier family life.

   Since in India rural people live in villages the Community Development staff together with certain other government departments must strive to upgrade all phases of village life—health and sanitation, water supply, schools for children and classes for illiterate adults, dwellings recreational facilities and many other problems of life in villages in addition to the all-important problem of increasing crop and livestock productions. This requires an Extension staff made up of specialists in many different fields.
3. An average American farm is more than 200 acres. Farming is almost universally by tractor power and modern cropping machinery so that one farm family can do the work on such farm with very little hired help.

The average Indian farm is very small and depends on bullock power only.

4. American farmers are highly literate, subscribe to farm journals and have radios making it possible for American extension workers to reach great numbers of farm families by mass media methods.

Indian cultivators are largely illiterate making it necessary for extension workers to depend almost entirely on personal and group contact methods.

Questions for Study and Discussion

1. A College degree in Agriculture is a requirement for position as County Agent in the U.S.

There is a grave shortage of B.Sc. (Ag.) men in India at the present time. In years to come, however, do you believe such degree should be a requirement for all agricultural extension workers in India ?

2. India is well started on a great Community Development programme.

What points of similarity can you point out between the Community Development programme in India and the American Extension programme ?

What are the points on which they differ ?

3. Is the number of people contacted by an extension agent during a year a true measure of his success as an extension worker ?

How should his success be measured?

REFERENCE

Kelsey and Hearne: *Co-operative Extension Work*, Chaps. 4-6.

Chapter 6

EARLY EXTENSION MOVEMENTS IN INDIA

It is only since India attained its independence in 1947 that a carefully planned, large-scale programme for extension education was conceived and launched in 1952. This excellent plan however is based in no small part on earlier thinking on the needs of India's rural people and on relatively small scale experiments in meeting their needs. A brief study of a few of these pioneer attempts to improve all phases of life in the villages is well worth our attention.

THE GURGAON EXPERIMENT

Mr. F. L. Brayne was posted as Deputy Commissioner of the Gurgaon District of Punjab in 1928. He was appalled at the abject poverty and misery in village life. He felt that ex-servicemen returning from the war for resettlement could be key men in a programme for village uplift and that improvement in the lot of village women must be a major goal. He wrote: "The demobilised men may have new and better notions about the part which his women folk must play in village life. Will he be content that they should continue to be ignorant and untrained drudges, grinding corn, kneeding dung cakes and carrying rubbish on their heads? Will he not install bullock driven mills for his flour, use hay boxes to keep things hot instead of a cow dung fire, use wheel barrows to carry rubbish, make his well comfortable and hygienic and provide latrines in place of the present insanitary and degrading custom? And will he not insist that the little girls go to school,—that there should be more adequate arrangements for medical and maternity aid for his womenfolk?"

With contagious enthusiasm Mr. Brayne organized efforts to improve farming methods, sanitary conditions in villages,

educational opportunities for boys and girls. He tried to enlist the efforts of government on a scale that would make possible reaching every villager and his home. Government support remained lukewarm but through his own efforts alone many successes were achieved. Sir Malcolm Darling had this comment on the work:

> "Pits were dug in thousands, Hissar bulls and Gurgaon ploughs bought in hundreds and Persian Wheels put up in scores. Villages were cleaned and re-cleaned, multitudes attended the annual Palwal Fair, large sums were raised for High Schools, and many girls went to school with the boys. Activity was unprecedented, and few who took part in it could resist its contagion."
> He concludes, "Now seven months later, all is changed, and the optimistic estimate is that amongst the peasants themselves not more than one third of the activity remains."

Sir Malcolm's conclusions were rather uncharitable but were probably true. The work directed by Mr. Brayne achieved many desirable results. Its weakness lay in the fact that all direction came from above,—too little of planning and execution came from the villagers who would benefit. Its chief value undoubtedly is that it awakened the people of India and the Government of India to the vital problem of village reconstruction as an immediate necessity.

THE LESSON OF MARTHANDAM

A notable experiment in self help for villagers was developed at the Y.M.C.A. Rural Reconstruction Centre at Marthandam in South Travancore under the guidance of Dr. Spencer Hatch, an American agriculturist. Dr. Hatch's philosophy was "self help with intimate expert counsel".

Marthandam is the headquarters for about 100 village Y.M.C.A. Centres. In a few unpretentious buildings it maintains demonstration exhibits of well bred bulls, chickens and goats, model bee hives, Red Cross health charts, samples of cottage industries and on its few acres of land demonstration plots of improved crops. From headquarters experts

the slowest items to be adopted because they involved a greater investment of time, effort, and money. An eight-inch soil turning plough, developed at the Allahabad Agricultural Institute was one of the major pieces of equipment popularised. Two years after the Etawah pilot project began operating, it was estimated that food production in the Etawah area had gone up by about 50 per cent. In the process, the people have gained confidence in themselves as they saw what they had accomplished in agriculture; and they began to turn to improving their living conditions and getting a better education for themselves and for their children." *Extension Evaluation,* (pp. 8 and 9 Allahabad Agricultural Institute.).

THE GANDHIAN PROGRAMME OF RURAL RECONSTRUCTION

Undoubtedly the formulation of the Block Plan for extension Education and Community Development that today is striving to increase agricultural production and raise the standard of village life in all of its phases was strongly influenced by the experience of earlier sporadic attempts in extension and by the thinking of early day leaders. Undoubtedly, however, today's philosophy for village uplift was influenced more profoundly by Gandhi than by all other philosophies and experiences combined. In her several thousands of years of history India has never had a leader, who had more influence on Indian people and Indian thinking than Gandhi.

Gandhi combined the role of visionary, teacher and statesman. His dream of Indian development was intensely rural. He saw her greatness not in highly industrialized cities, but in intelligent, independent and contented millions in her villages. He was appalled by the ignorance, disease and poverty of rural Indians and dreamed of village reconstruction that would fire the imagination of village people and lead them through self help to insure ample food for all, adequate health protection and medical services, free education, local self-government, self-employment through cottage industries—in short to make village life so rich and full and happy that village youth would not be tempted to migrate to big, congested cities. In his own words: "Every villager's first concern will be to grow his own food crops and cotton

for his cloth. He should have a reserve for his cattle, recreation and playgrounds for adults and children. Then if there is more land available, he will grow money crops, excluding "ganja", tobacco, opium and the like. The village will maintain a village hall, a village theatre if possible and a village school. It will have its own water works, ensuring clean water supply. This can be done through drilled wells or tanks. Education will be compulsory up to the final basic course. As far as possible, every activity will be conducted on co-operative basis. There will be no castes such as we have today with their graded untouchability. Non-violence with its technique of Satyagraha and non-cooperation will be the sanction of the village community. There will be compulsory service by village guards, who will be selected by rotation from the registers maintained by the village. The Government of the village will be conducted by the Panchayat of five persons, annually elected by the villagers male or female, possessing minimum prescribed qualifications. They will have all the authority and jurisdiction required. The Panchayat will be legislature, judiciary and executive combined to operate for its year of office. Any village can become such a Republic to-day without interference even from the present Government, whose sole effective action with the village is the exaction of village revenue. I have not examined here the question of relations with the neighbouring villages and the centre, if any. My purpose is to present an outline of village government. Here, there is perfect democracy based upon individual freedom. The individual is the architect of his own government".

Gandhi was a realist. He knew that village uplift in food, health, education and better housing was impossible unless accompanied by a simultaneous uplift in village economy. Millions in rural India are unemployed. Their lives are apathetic, dull, hopeless. Gandhi would cure rural unemployment by cottage industries typified by the spinning wheel. As early as 1926 he said: "The Spinning Wheel is the centre of that service. If you spend your next vacation in some far off village in the interior you will see the truth of my remarks. You will find the people cheerless and fear stricken. You will find houses in ruins. You will look in vain for any

sanitary or hygienic conditions. You will find the cattle in a miserable way, and yet you will see idleness stalking there. The people will tell you of the spinning wheel having been in their homes long ago, but to-day they will entertain no talk of it or of any other cottage industry. They have no hope left in them. They live, for they cannot die at will. They will spin only if you spin. Even if a hundred out of a population of 300 in a village spin, you assure them of an additional income of Rs. 1,880 a year. You can lay the foundation of solid reform on this income in every village."

Gandhi knew that rural people of themselves would never initiate reconstruction. They must be given leadership. Years before the Community Development Plan had been conceived he drew an accurate picture of the role of a Gramsevak in village reconstruction. " A Gramsevak must know everybody living in the village and render them such service as he can. That does not mean that the worker will be able to do everything single-handed. He will show them the way of helping themselves and procure for them such help and materials as they require. He will train up his own helpers. He will so win over the villagers that they will seek and follow his advice. Supposing I go and settle down in a village with a 'ghani', I will be a 'ghanchi' who knows the Gita and the Quran. I will be learned enough to teach their children. I may not be able to do so for lack of time. The villagers will come to me and ask me: 'Please make arrangements for our children's education.' I will tell them, 'I will find you a teacher, but you will have to bear the expenses.' And they will be prepared to do so most willingly. I will teach them spinning and when they come and ask me for the services of a weaver, I will find them a weaver on the same terms I found them a teacher. And the weaver will teach them how to weave their own cloth. I will inculcate in them the importance of hygiene, and sanitation and when they come and ask me for a sweeper, I will tell them: 'I will be your sweeper and I will train you all in the job'. This is my conception of a Gramsevak."

The broad picture of the role that village life must play in a developing India as sketched by Gandhi remains true to-day. Advancing years have shown the necessity of modi-

fication in some of the details of his beliefs. Future years will undoubtedly bring a changed viewpoint on some of the precepts we hold today. Gandhi will hold an eternal seat in the forum of India's great men and be enshrined in the hearts of all Indians as a leader whose sole thought was for the betterment of the life of India's common man.

We have seen that nearly all early attempts at village uplift were characterized by initial enthusiasm, the attainment of many desirable objectives, followed by a period of declining activity and usually ending in abandonment of the scheme.

Why did these early attempts gradually fail? Why did they not endure? What lessons can we learn from them?

Eleven reasons for such failures are listed in Information Booklet No. 6, Department of Agriculture in Mysore—April 1959. They deserve careful study.

1. The attempts were mostly based in individual initiative inspired by humanitarian considerations.
2. Government backing and financial support was not forthcoming in sufficient measure.
3. The attempts were mostly isolated, uneven and discontinuous.
4. The staff employed was inadequate, inexperienced and untrained.
5. The objectives were ill-defined, or lopsided in their development.
6. Plans, programmes and organizations were lacking, weak or unbalanced.
7. Parallel programmes of supplies, services, guidances and supervision were not developed.
8. The need for proper methods and skills of approach to the task was not fully realized.
9. Research and evaluation was lacking.
10. Association and coordination with other development departments was very limited.
11. The involvement of village people in thinking, planning and executing village development was not properly achieved.

Questions for Study and Discussion

1. Early experience in attempts at village uplift such as Gurgaon experiment indicated clearly that to be successful the desire for improvement and plans for impovement must originate with the people who will benefit; that a scheme for such improvement worked out by higher authority and imposed on the people will not succeed; that "self help with kindly and highly skilled guidance" is the only way to insure enthusiastic and lasting village participation.

Why is this true ?

In the several years of Gurgaon experiment the villagers had ample evidence of the benefits from the thousands of manure pits, the improvement in dairy cattle breeding, the value of better ploughs, the clean up of villages and the establishment of schools.

Why did they quickly revert to old customs ?

2. India needs a great increase in food production. The Indian Government could send agricultural extension workers to every village with the authority to tell every cultivator what crop to grow; what variety, how much fertilizer he must use, to follow the Japanese method of paddy production, to use a steel plough etc. With policemen to compel every cultivator to follow his orders, a great increase in food production could be had by the next harvest.

Would you favour such a scheme ? Why ?

3. In the original Firka Development scheme in Madras State it was planned to give impetus to village uplift through the services of a zealous social worker, who would be posted in a community for three years, establish a programme, then be shifted to a new area and leave the first community to carry on under their own direction.

Do you believe such scheme could have been successful ? Why ?

Do you believe the plan for Community Development in which a trained staff is posted permanently in a block will lead to greater success in village improvements ?

Will the value of improvement, year after year, be great enough to warrant the high cost of maintaining a permanent staff ?

4. Gandhi was a patriot and an idealist, who dearly loved the people of India. His memory will always be revered.

All his philosophies, however, must be continually reappraised in the light of changing conditions.

A. Should all rural people be content to live their lives in the village in which they were born, following the occupation of their fathers ?

B. Were such custom followed what would be the effect with the rapid increase in population ?

C. Should each village strive to be nearly self sufficient, growing its own food, weaving its own cloth, depending on its own artisans for its needs in simple tools and services, exercising almost complete self-government and having the fewest possible contacts with neighbouring village, the State, the nation and the outside world ?

D. If spinning and weaving were widely adopted as a cottage industry in all villages, where could a market be found for the enormous amount of cloth they could produce ? With relatively few weavers there is a glut in the market for khadi.

E. Do Indian people want such modern amenities as unlimited electric power, automobiles, telephones, bath tubs and sanitary plumbing, radios, television, electric refrigerators, hospitals and schools, the services of well trained doctors, nurses and teachers and the endless modern conveniences and services enjoyed by Western nations ? To build such conveniences and provide such services would require countless factories and training centres and the migration of millions of rural people to cities to provide the necessary labour.

Can industrialization and migration of labour be harmonized with the Gandhian philosophy of self contained villages ?

5. Do you know of any early extension movement in or near this community ?

Chapter 7

THE COMMUNITY DEVELOPMENT PROGRAMME IN INDIA

India attained her independence in 1947. Her leaders, keenly aware of the poverty of life in rural India, in 1950 set up a Planning Commission to formulate a plan that could bring self help to the villages by providing expert guidance. The plan conceived by the Commission to bring self sufficiency and economic and social development to villagers came to be known as the Community Development Plan. First projects under this plan were launched in 1952. It was hoped that one quarter of rural India could be covered by this service in 1955-56, one half by 1958 and the whole country by 1961. In spite of many grave problems these goals are being achieved.

WHAT IS COMMUNITY DEVELOPMENT ?

Community Development is a Plan that recognises:

1. That 80 per cent of the population of India live in villages; that their life is one of abject poverty, utterly lacking in the amenities enjoyed by the working classes in many nations; that their outlook on life is apathetic and the hope of spontaneous leadership for improvement is almost nil.
2. That most villagers are partly unemployed many months in the year; that if this immeasurable manpower could be creatively employed in building facilities demanded by a satisfactory scale of living, village life could be revolutionized.
3. That any attempt to bring improvement of upgrading in village life by governmental edict or command would fail.

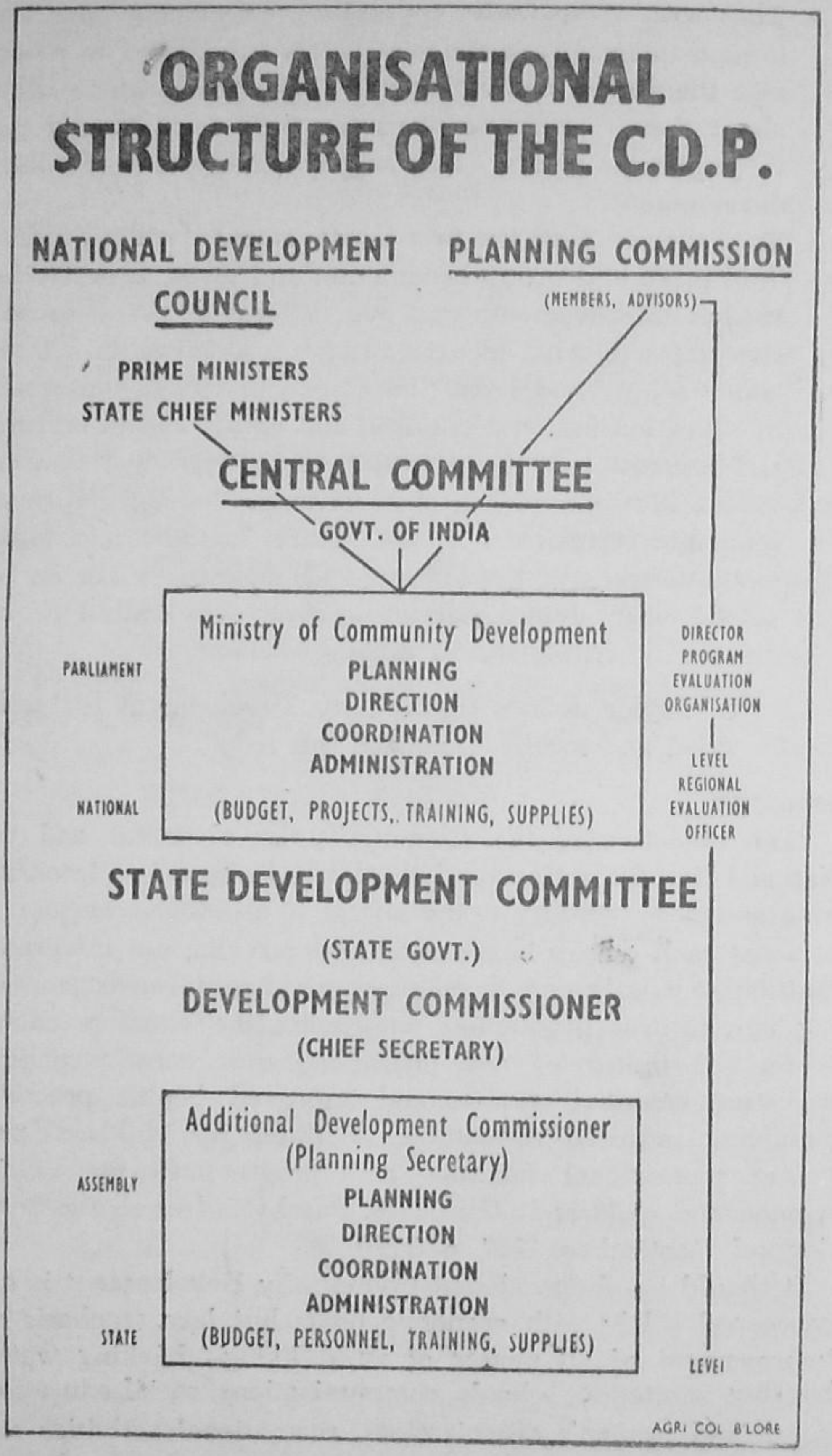
4. That with sympathetic counselling expert guidance and limited financial assistance villagers can be led to recognise their most immediate and acute problems, to think about them, formulate plans for their solution and put these plans in action. Self help is the keystone of village development.
5. That success with the first improvement develops individual pride and group satisfaction and leads to desire for further improvement; that over a term of years, successive improvements in agricultural production, in a clean water supply and health measures, in village industries, in education for both children and adults and in cultural and recreational opportunities can completely transform village life, not only in physical amenities and improved economic status, but in the mental attitude and behaviour patterns of the villagers. Hopelessness can be replaced with determination, apathy with ambition, indifference with pride in accomplishment.

Carl C. Taylor defines Community Development as "technically aided and locally organized self help".

OBJECTIVE

"The objective of the Community Development and the National Extension Service, (the latter being a less intensive programme, but similar to the former in all other respects), is to assist each village in planning and carrying out integrated multiphase family and developmental plans towards increasing agricultural production, improving the existing village crafts and industries and organizing new ones, providing minimum essential services and improved health practices providing required educational facilities for children, providing recreational facilities and programmes for village women and children." (Dr. J. S. Patel, *Madras Agricultural Journal*. September, 1957, p. 359).

It should be observed that Community Development is not concerned solely with economic fields but lays emphasis on improvement of all phases of rural living—drinking water, housing, sanitation, schools, communications, social education, youth and women's organizations, recreational activities and cultural revivals.


ORGANISATIONAL STRUCTURE OF THE C.D.P.
NATIONAL DEVELOPMENT COUNCIL
PRIME MINISTERS
STATE CHIEF MINISTERS
PLANNING COMMISSION
(MEMBERS, ADVISORS)
CENTRAL COMMITTEE
GOVT. OF INDIA
PARLIAMENT
Ministry of Community Development
PLANNING
DIRECTION
COORDINATION
ADMINISTRATION
(BUDGET, PROJECTS, TRAINING, SUPPLIES)
NATIONAL
DIRECTOR PROGRAM EVALUATION ORGANISATION
LEVEL REGIONAL EVALUATION OFFICER
STATE DEVELOPMENT COMMITTEE
(STATE GOVT.)
DEVELOPMENT COMMISSIONER
(CHIEF SECRETARY)
ASSEMBLY
Additional Development Commissioner
(Planning Secretary)
PLANNING
DIRECTION
COORDINATION
ADMINISTRATION
(BUDGET, PERSONNEL, TRAINING, SUPPLIES)
STATE
LEVEL
AGRI COL BLORE

JOINT DEVELOPMENT COMMISSIONER

(DIVISIONAL COMMISSIONER)

JILLA PARISHAD DISTRICT LEVEL

Deputy Development Commissioner

DEPUTY COMMISSIONER

PROJECT EXECUTIVE OFFICER

(SUB DIVISION OFFICER)

PANCHAYATH SAMITHI BLOCK LEVEL

Block Development Officer

PLANNING COORDINATION ADMINISTRATION

PROJECT EVALUATION OFFICER LEVEL

Specialists
Block Extn. Officers

Field Staff
Gramasevaks

Office Staff
Ministerial Staff

ORGANIZATION

The responsibility for the Community Development Programme rests with the Ministry of Community Development in Central Government, and in the Secretariat of Planning and Development at the State level. The charts on pages 48 and 49 show details of organization.

Rural India will ultimately be laid out into approximately 5000 Blocks. As nearly as possible each block will cover 60 to 100 villages and a population of 60,000 to 100,000 people.

Two types of Blocks were originally planned: Community Development and National Extension, later redesignated Stage—(1) Blocks and Stage—(2) Blocks. The significant difference is that a Stage-I Block is provided Rs. 12 lakhs of assistance in the first 5 years. It then becomes a post-intensive Stage-II Block and receives only Rs. 5 lakhs.

Each Block is provided with the following staff: Block Development Officer· responsible for the successful implementation of the programme in the entire Block. He is the leader of the team. Extension Officer for Panchayat. Extension Officer for Agriculture responsibility for the agricultural improvement in the Block. Extension Officer for Animal Husbandry responsible for all animal husbandry and veterinary programmes. Extension Officer for Co-operation responsible for the organization of co-operative societies.

Social Education Organizer (Male), Social Education Organizer (Female). These officers explain the programme to the people and enlist their participation. The women organizer pays a special attention to programmes for women.

Gramsevaks—One such worker for each 5 to 10 villages.

To assist a Stage-I Block to achieve intensive development additional personnel are assigned to it as follows :

Medical Officer.
Lady Health Visitor.
Mid-wives.
Health Instructor.
Industrial Supervisor.

Since we are especially interested in agricultural improvement in the Block, it would be well to study further the

duties of those workers chiefly concerned with agricultural improvement.

BLOCK DEVELOPMENT OFFICER

The B.D.O. is the captain of the team. His workers in agriculture talk over with him plans they have formulated for agricultural improvement and receive his endorsement and support. He should ever study the various aspects of life in his Block villages and suggest to his officer lines of attack on their problems. He is the spark plug, the leader who inspires action with his assistants. He is frequently untrained in agriculture, but he must have a sound working knowledge of all programmes for agricultural improvement. He must work closely with village organizations since without their support no worthwhile programme can be implemented.

It is not a requirement that the B.D.O. have a B.Sc. (Ag). He is responsible for village reconstruction not only in agriculture but in all fields.

AGRICULTURAL EXTENSION OFFICER

No improvement in village living-standards is possible without an increase in agricultural production. Food is the first basic necessity of life. A hungry man cannot be interested in health measures, sanitation or education until his hunger has been met.

The Agricultural Extension Officer and his assistants should follow definite plans for assistance to the cultivator in every phase of food production. Among his primary duties may be listed:

1. Procurement and distribution of improved seeds.
2. Procurement and distribution of fertilizers.
3. Organizing demonstration plots.
4. Organizing Agricultural Associations.
5. Organizing and working closely with village agricultural associations.
6. Teaching insect and plant disease control.

The Agricultural Extension Officer must be well trained in all phases of agriculture. He should be a graduate of a

recognised College of Agriculture and hold a B.Sc.(Ag). degree.

GRAMSEVAK

The role of the Gramsevak in the programme for rural development is well described in the *Manual on Community Development.*

"The Gramsevak is the most important person in the administrative machinery of Rural Development especially in that he is a multipurpose worker common to all departments. He should generally perform such functions as are assigned to him by the Extension Officers for Agriculture, Animal Husbandry, Co-operation and Panchayats. He should also assist the Social Education Organizers. He should always reside in one of the villages within his Block and serve as a common channel between the villagers and the Government departments for all development activities.

"The Gramsevak should be of real help to the villagers and should acquire a first hand knowledge of the local conditions, needs and difficulties. Being the sole channel for the development activities, he should maintain continuous and intimate touch with the villagers and enlist their co-operation. He should devote the major part of his time to actual field work, instead of aimlessly touring from village to village.

"He should carefully study the conditions in the village, the attitude and habits of the villagers and the mental conditions of the villagers. He should also concentrate on the duty prescribed for him and make proper use of the villagers in order to improve the local conditions in the village. He should prepare a comprehensive and integrated village plan under the direction of the Block Development Officer. These plans should not be based merely on the official surveys, but on the wishes and actual needs of the peoples.

"He should know all the families in his Block personally and intimately and then set about to give these families agricultural improvement plans, taking into consideration their needs and resources. He should maintain a chart for each family, detailing what part of the programme had touched the family."

When the Community Development Programme first started the needs for Gramsevaks was so great that men for such

positions were given only 6 months training. This was extended later to 12 months then to 18 months. Today 2 years training is demanded.

Questions for Study and Discussion

1. Since increase in food production is rated the No. 1 problem of the nation should not a B.Sc. (Ag.) degree be a requirement of all applicants for the position of B.D.O. ?

With such training would he not have a vastly greater knowledge of and sympathy with the programme to increase agricultural production ? What is your opinion ?

2. According to the *Manual on Community Development* the Gramsevak "is the most important person in the administrative machinery of Rural Development". He is the contact man with the villagers."

Discuss these statements about Gramsevaks. Some are true, some may not be true.

A. In nearly all cases he is a city reared young man with no background in agriculture.
B. In theory he must have finished high school to be accepted for training as a Gramsevak but for a variety of reasons many are accepted who have had less than a high school education.
C. The Gramsevak has many masters. He must obey the orders of the B.D.O., the Agricultural Officer, the Animal Husbandry Officer, the Panchayat Officer, the Officer for Co-operatives, the Health Officer and others.
D. He must make frequent and extensive reports but seldom has an office of his own in which to work.
E. He has had only 2 years training to prepare him for service in half a dozen fields. This is inadequate.
F. Since his knowledge of agriculture is so limited and he is usually obliged to refer questions on practical farming to his Agricultural Officer, cultivators have little confidence in him and do not seek his advice.
G. His superior officers frequently have so little respect for his knowledge and skill in various fields that he is used by them merely as an errand boy.
H. In view of the fact that the agricultural programme is the most important single programme in village uplift and that 70 per cent of villagers are working in agriculture, should it be required that all Gramsevaks have a B.Sc. (Ag.). degree, and be paid in accordance ?

3. When careful consideration is given to the number of different fields in which a Gramsevak must have sound basic

knowledge and skill, the need of two years training cannot be questioned. It is probable that in the future the training period for this important work may again be profitably extended.

4. Divide the class into teams of two men. By appointment have a team spend a full day with each officer in the nearest Block, accompanying him in his work. Have a team accompany each Gramsevak in a typical day's work.

During the day each team should question each extension worker about his job, the programme on which he is working, the problems he is finding and how they are met. Record all observations, comments and criticisms in a note book.

In class again have each team make a full report and lead a class discussion on their observations.

What strong points were noted in the Community Development Programme?

What weak points were observed?

In what ways might the whole Community Development Plan be made more effective?

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Chapter 8

RURAL INDIA

The dictionary defines culture as "The sum total of ways of living built up by a group of human beings which is transmitted from one generation to another".

The Indian culture has been developed over thousands of years. There is positive evidence of human habitation on this great sub-continent at least 4000 years ago and more fragmentary indications of life much earlier. During these forty centuries or more there has developed a culture, a mode of living recognised by anthropologists as distinctively Indian. The beautiful work of Indian artisans in stone, wood and ivory, the paintings and sculpture of Indian artists, the poetry and philosophy of Indian writers, all bear the trademark of Indian culture. Of still greater interest to the anthropologist is the development through the centuries of certain broad social, religious and philosophical customs and beliefs that gained universal acceptance and circumscribed the lives of untold millions of Indians through past centuries and at least in part are current in the lives of Indian people today—the concentration of life in small, self-contained villages, joint family, the gradation of society into castes, the belief that cattle are sacred.

It is probable that in their origin, these beliefs and traditions served a useful social purpose. Now, however, after centuries of foreign rule, India is free and independent. In January 1950, following the adoption of her constitution, India became a Sovereign Democratic Republic, dedicated to equality of all men under a socialistic welfare State. Her leaders want to foster production in all fields, to industrialize the nation and abolish poverty.

It is possible that some of the ancient traditions and beliefs will impede progress, particularly in the villages. Consider each individually. Hold open class discussion. The very

essence of democracy is free discussion. When all factors have been considered and debated place your stamp of approval on factors that are helpful and suggest modification or abolition of those that would hinder progress in India.

India is a nation of rural people. Throughout the several thousands of years of her troubled history her people have been predominantly rural and even today approximately 80 per cent of her great population of 438 million live in villages

with 70 per cent directly engaged in agriculture. Community development is concerned with upgrading the lives of these countless millions. Extension workers just entering the field should have at least a broad, overall knowledge of major factors influencing the lives of the rural people with whom they will work.

VILLAGES

Scientists in the field of anthropology have evidence that the primitive ancestors of the human race lived on this earth hundreds of thousands of years ago. They were a nomadic people. Associated in families and small tribes they wandered continually in search of game and of wild fruits and seeds, their only source of food. In the passage of endless

centuries man learnt that if seeds were planted, plants would grow and he invented crude hoes to aid him in such planting. Fertile spots would be planted, then the tribe would continue wandering in search of wild foods until time to return to the plantings for harvest. Later years brought the invention of the plough. This made possible a more stable and assured food supply. Grain could be raised and stored for periods of need. Man ceased his wanderings, built permanent shelters in small villages and entered a higher phase of social existence. Each scattered village made claim to its land and stood ready to defend its right of possession. The type of village established, its social and political organization and the division of work among its families, varied widely in different parts of the world, but in all cases it marked the establishment of a stable agricultural economy.

The first establishment of village life in India is clouded in the mists of the past. We do know that for many, many centuries the history of India was the history of her villages. In pre-British years and for many years after she had firmed her control, each village was a self contained, self sufficient and self prepetuating unit. A. R. Bhaskaran* described certain features of such villages in these words: "Each of these village communities was based on a fixed form of division of labour, which directly linked agricultural and domestic industries and guaranteed to every member of the community some customary share out of the total produce.

"The products of the community were largely for immediate and local use. Certain pieces of land were marked to all the non-cultivating families. A certain proportion of agricultural produce was guaranteed for them. The proportion

* A. R. Bhaskaran was graduated from the College of Agriculture at Coimbatore. He has served in a dozen or more positions in Agriculture and Extension and has had wide experience in Community Development work.

He was assigned as District Agricultural Officer at Coimbatore with the thought that he might eventually head the Extension Wing to be organized at the College of Agriculture but after only five weeks of contact at the College, the Government deemed his services more important in Soil Conservation and he was posted elsewhere.

Grateful acknowledgement is made of his generous help and assistance given during his short stay at Coimbatore.

was calculated either on the basis of the number of acres cultivated, or the quantity of the crops produced, or the number of ploughs used in cultivation or in some cases on the basis of the number of dependents in the non-cultivating families. The land allotted to these non-cultivating families was generally cultivated by the families in the community on a produce sharing basis. Thus, the organization was based on a close unit between handicrafts and agriculture. There was little use for money. The only major outside contact for these communities was with the State, to which they generally paid a fixed land revenue in kind."

Another interesting description of such villages was given by Sir Charles Metcalfe in the *Minutes of Evidence,* Committee of the House of Commons on Affairs of the East India Company in 1832: "The Village Communities are little republics having nearly everything they want within themselves. They seem to last where nothing else lasts. Dynasty after dynasty tumbles down, revolution succeeds to revolution; Hindus, Pathans, Moghuls, Maharashtras, Sikhs, English are masters in turn, but the village communities remain the same. The union of village communities, each one forming a separate State in itself, has, I conceive, contributed more than any other cause to the preservation of the people of India through all revolutions and changes they have suffered."

There can be no question but that the small villages, "little republics having nearly everything they want within themselves," held India together through centuries of troubled times. Today in modern India more than 300 million of her vast population still live in her 558,000 villages. Today's villages are not as isolated nor as self-sufficient as those of the eighteenth century and earlier. The British introduced better communications—roads, railways, the telegraph and telephone. The industrial civilization of Western nations began making an impact. India attained her independence. A strong foment of discontent with desperate poverty and isolation of traditional life is growing and a demand for more and better foods, better housing and better living is everywhere evident. It is the role of the Community Development staff to lead villages through self planning and self help to the attainment of a higher standard of living.

VILLAGE LAND RESOURCES

There is of course wide variation in the population of villages and in their land resources. A. R. Bhaskaran comments, "A village usually consists of from 100 to about 5,000 acres. Places which have good irrigation facilities are formed into small compact villages, while those depending on rainfall for their water requirements are often divided into villages having a large acreage of land. This followed because the amount of land revenue to be collected from a village is fixed at a particular level. To collect a particular sum of land revenue, villages varied in their extent from a small area over a fertile piece of land to a wide area with the lands low in fertility.

"Classification of land itself into areas reserved for food crops, for cash crops, for plantations, for forests etc., is not usually done. Therefore, it will be found that the land resources of a particular village area are being exploited in the most unsystematic manner. However, this tendency has not resulted in chaos, due to the primary necessity to produce the food requirements of the village from the agricultural area of that village itself and also to produce its requirements for cloth and that of basic necessities".

Table 1 is taken from the 1951 Census—Coimbatore District. It shows the population figures, occupational divisions and land resources of seven villages and is more or less typical for that part of Madras State. A Study of this Table reveals many points of interest.

Population. Total	..	17,689
Range per village population	..	582 to 5876
Total engaged in Agriculture	..	12,677—(72 per cent)
'Total non-agricultural population		4,799
Total acres of land	..	16,178
Land per capita	..	91 acres
Total cultivators and dependents owning all or a part of the land they cultivate	..	7,764
Total cultivating labourers and their dependents	..	4,913
Total non-cultivating land owners and dependents	..	213

TABLE 1

Taluka Village	*Cultivation of land owned & leased & their dependents*	*Cultivating labourers & their dependents*	*Non-cultivating owners of land & their dependents*	*Non-agricultural population*	*Total population*	*Total cultivated areas in acres*
Avanasia Nelluthur Erode	236	267	2	77	582	1250
Singanallur Coimbatore	1309	1	1	469	1780	1460
Vadavalli Palladam	2799	1524	114	1439	5876	2470
Pongalur Dharapuram	1110	1032	28	1244	3414	3038
Puthur Pollachi	1583	1230	26	856	3695	4530
Mullipalayam Udamalpet	245	75	—	353	673	430
Pukulam	482	784	42	361	1669	3000
	7764	4913	213	4799	17689	16178

(1951 *Census hand-book*, Coimbatore District)

It is probable that the relatively large number of non-agricultural population in these 7 villages is due to the closeness of several of the villages to the city of Coimbatore, where many thousands find employment in cotton mills.

VILLAGE INDUSTRIAL RESOURCES

A. R. Bhaskaran gives a general description of village industries in these words: "Village industries in India are mainly only those which function as auxiliaries for the profession of agriculture. Industries in the villages produce materials like small iron bars to serve as shares for the wooden plough, iron rings to serve as cart tyres, a variety of small tools like sickles and hoes, and the simple implements such as *mummutties* (shovels) and crow-bars. Skins of the dead cattle and other animals may be tanned and used for mote buckets and manufacture of foot wear. Carpentary thrives only by the production of wooden ploughs and carts. It will be seen that the support of these industries is only agriculture and not any other. However, nearly every village has a thriving spinning and weaving industry on a cottage scale throughout. This has been due to the utter necessity to produce the cloth requirements of the village in the village itself. Therefore, the description, that the village is a 'small republic' in India without any dependence on the areas outside is largely true."

We have taken a quick, general picture of Indian villages as they were formed in centuries past and as they largely exist today. The standard of living in villages is deplorably low. To raise this standard very materially is the ambition of Extension and Community Development. What are some of the factors that affect the efforts of Extension workers—factors that must be seriously studied in formulating programmes for upgrading village life ?

FACTORS AFFECTING EFFORTS TO UPGRADE VILLAGE STANDARDS

A. R. Bhaskaran continues his comments. "What then are the factors which bar the achievements of these basic needs ?

Over Population

"The population of India is very high. In some places like Kerala the density of population has reached four thousand and more per square mile.

"Over-population affects directly the standard of living of the people in that the country's production of food has to be shared over the entire population and when that is done the share of an individual would be either low or enough depending upon the number of individuals who share. We know we are also one of the most underfed nations in the world. We know we should have about 2,600 calories of food per day to have vigorous health but we average only 1700 calories at present. Our population grows at the rate of more than seven million a year. Therefore one of the primary necessities of our country is the consideration of steps to take to check this over population and bring it down in the course of a few years to a manageable level".

Ill Health

"The problem of ill health is a serious one. A large per cent of villages have a contaminated water supply. The filthy habit of using dooryards, roads and ditches in place of latrines continually spreads many types of diseases, especially dysentery and diarrhoea. Prejudice against and fear of preventive innoculations costs thousands of lives yearly. Each year Calcutta experiences a cholera epidemic; yet in spite of an educational campaign by health authorities urging all citizens to accept free innoculation only 400,000 out of several million were innoculated in 1958 and the usual epidemic followed with hundreds of deaths. Millions of villagers depend for treatment on local quacks with no scientific training whatever or resort to traditional charms or rituals for curing disease. There is widespread lack of knowledge of scientific medicine.

"There is a crying need for training thousands of doctors and stationing them in rural areas and for the training of thousands of nurses and the building of thousands of hospitals".

Extension workers can be leaders in educating the people to depend on proven, scientific methods in preventing and curing disease.

Illiteracy

(A. R. Bhaskaran) "We have also the unenviable reputation of a very high illiteracy among our masses. We may say that all our disabilities such as over-population, ill-health, superstitions and poverty in general are due to lack of education."

The minds of people who can neither read nor write are narrowly prescribed. They know only what they can see or hear. They have little contact with the outside world, know little or nothing of national or State issues and cannot vote intelligently. A democratic form of government can never develop its promise with an illiterate electorate.

Eighty per cent of adults in India are illiterate. In Madras State the composite estimate of Indian school-men interviewed in one educational study was to this effect.

40 per cent of boys and girls of elementary school age are never enrolled in school. 75 per cent of boys and girls who enroll in the first elementary form, drop out before finishing all 5 years of elementary education. Only 60 per cent of those who finish the 5 elementary forms enter High School and only 50 per cent of those who enter stay in school through the completion of form 6.

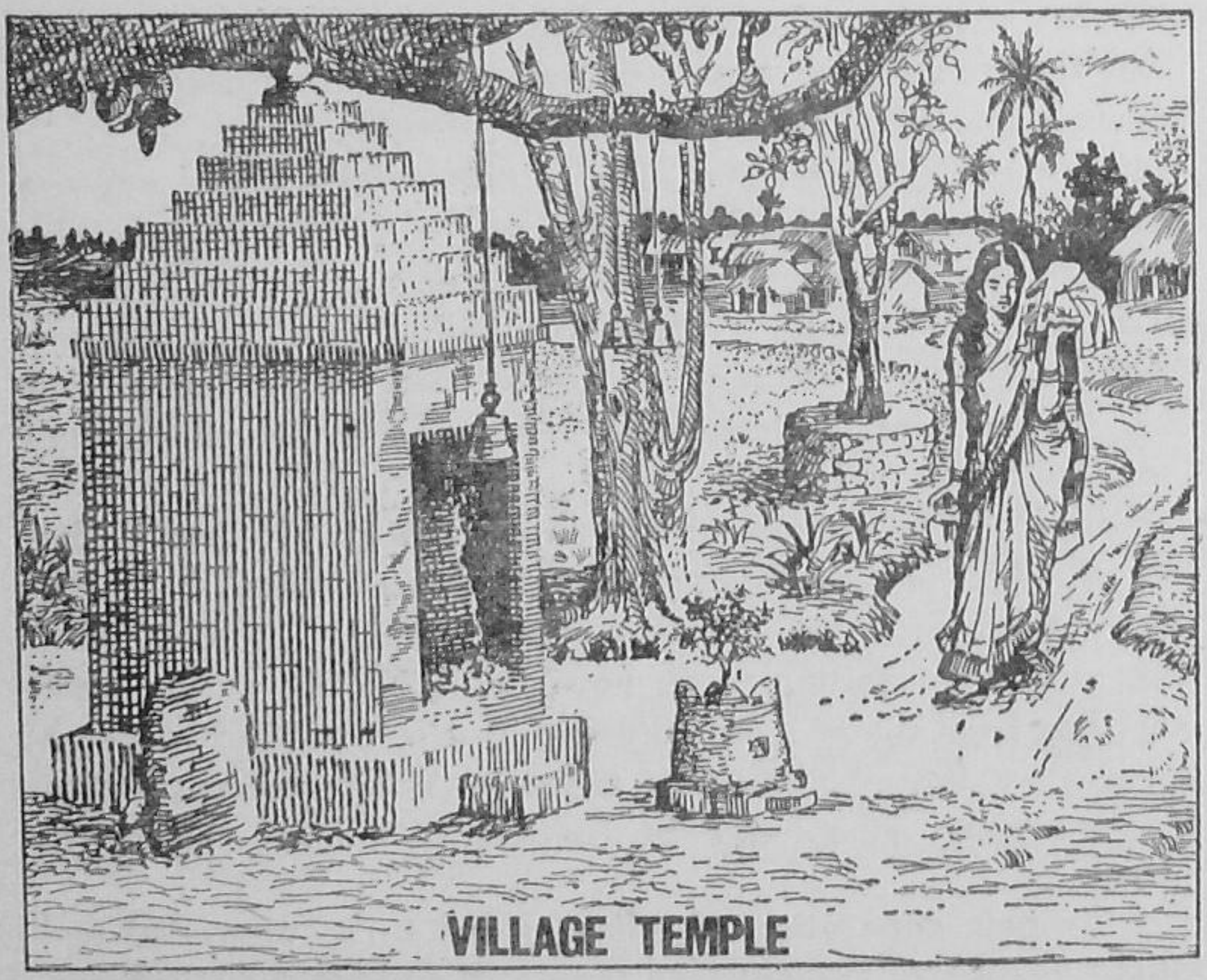
Indian leaders in government and education are greatly disturbed with such conditions. They have endorsed an immediate programme for building more schools, training more teachers and enrolling more boys and girls but only a good start has been made. An editorial in a leading Indian newspaper gave the estimate that there were 73 million children of elementary school age in India and only 29 million in school.

If the new generation of villagers are to be upgraded and taught to discard ancient traditions and superstitions in farming and in living and to develop faith in modern, scientific methods, schools must be provided for education. Extension workers should be enthusiastic in their support of the De-

partment of Education in the great movement to provide adequate schools and teachers for all of the boys and girls in all villages and so insure a literate people in the next generation.

RELIGION IN RURAL INDIA

In the primitive stages of all societies, including India, there developed through the ages a traditional religion that includes polytheism, magics, ghosts, charms, and various superstitions. It developed as an attempt of ignorant people to explain the forces in their environment in which they stood in constant fear—rain, high winds, thunder and lightning, diseases and plagues. To each phenomenon they assigned a god and sought continually to propitiate Him by prayers and sacrifices. Through the years, it came to dominate every aspect of their lives. It coloured their thinking, their emotions and their practices in every day living and is reflected in all of their forms of folk lore and art.



VILLAGE TEMPLE

The hold of religion on rural people the world over is much stronger than on urban people. The intelligentsia in urban society tend to turn from religious beliefs based on fear to

those based on philosophy and reason and thus become less credulous and superstitious.

Traditional religion in rural India gave a position of firm leadership in all aspects of life to the priestly classes. They exhorted daily prayers in the home to the family god or goddess. Each caste generally worshiped a special deity and when possible maintained a caste temple. Every street had its own deity where prayers must be offered in addition to prayers at a village temple. Priests conducted the sacrificial offerings of grain and animals, and even human sacrifices were known many, many years ago. These sacrifices to various and almost innumerable gods and goddesses were to turn their wrath and gain their favour, insuring to the worshippers good crops, freedom from disease and injuries, protection from floods and general prosperity in living.

In early days villages were isolated. They were indeed little republics, self sustaining, self governing with little contact with their neighbours and no contact with the world beyond. Life in the village was completely circumscribed by religion.

With the coming of British rule and at an infinitely accelerated rate since independence, this isolation has been broken. Roads and railroads, telephone and telegraph, daily newspapers and other such impacts of modern civilization have breached this isolation. The beginning of industrialization has promoted a certain amount of mass movement. The establishment of Centre and State Governments has robbed the local panchayats of much of their previous authority. New ideas are topics of conversation, questioning of ancient beliefs is growing. Rural India has become a forum for discussion of ancient doctrines and the reappraisal of these traditional beliefs in the light of twentieth century knowledge.

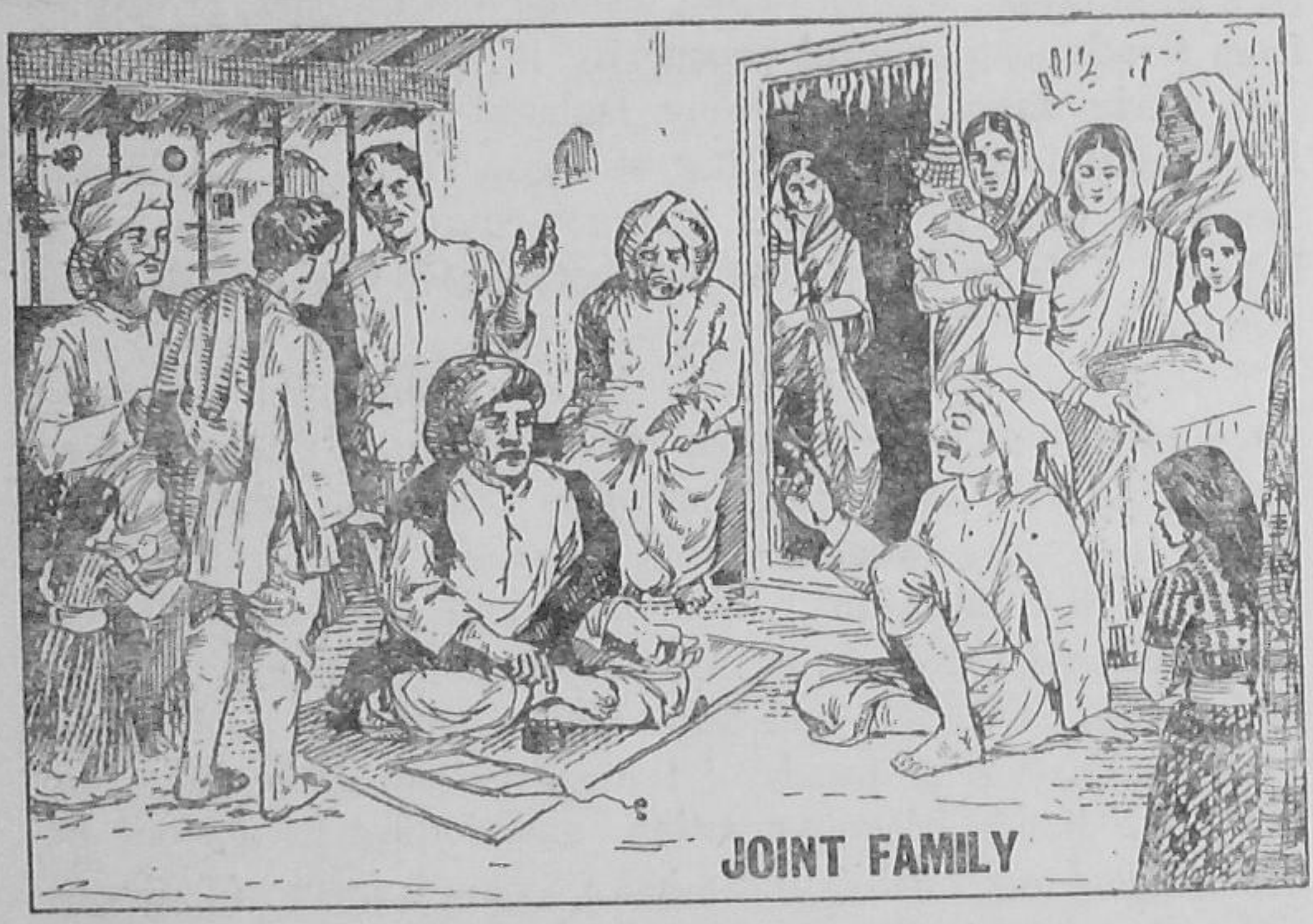
Extension workers cannot remain entirely aloof from this discussion. They must wisely support that which is good in ancient tradition but advocate change where tradition is illogical, unscientific and where it impedes progress.

JOINT FAMILY SYSTEM

The most important institution in rural societies the world over has been the family. This is especially true in

India. The family has been the hub of life itself for all its members. In it they have found their economic, their social and their occupational life.

For centuries the joint family system has been nearly universal in rural India. Its members work together in the common occupation of food growing, each being assigned tasks in keeping with his age, experience and strength. Each receives a share in the products of his toil. Property is held in common, usually managed by the eldest member of the family. The father or eldest male member holds nearly absolute authority over every member. He assigns work, manages the common property, arranges marriages. Final authority on all matters is vested in him.



Working together and living together, obeying a common authority, it is not surprising that the members of a joint family even think alike and have a common viewpoint on all matters. Individuality and initiative of young people tend to be stifled and needed changes difficult to achieve.

A. R. Bhaskaran describes joint families in these words: "The joint family system is a characteristic feature of Hindu Society. In India there may be living together at any given time perhaps three generations that together constitute a single home. The undivided Hindu family is ordinarily joint

not only as regards property but also as regards food and work. The head of the family (the oldest male member) may be regarded as a sort of trustee, administering the property of the family and regulating their affairs for the general economic and spiritual welfare of its members and he is empowered to take any course of action calculated to achieve this end. The women of the household have a separate family head with corresponding authority on matters of internal domestic economy. The earnings of every member are thrown into the common stock. They are then drawn as required by the head of the family to meet the needs of all. Thus, the joint family at best fosters self discipline, sacrifice, obedience and reverence. It also makes superfluous state provision in the shape of old age pension or poor relief. Everyone is guaranteed at least a bare subsistence. Orphans are protected, widows are cared for and the crippled well provided.

"However, the defects of this system are disturbing. One of the main defects is the absence of a correlation between reward and effort.

"The best stimulus to strenuous endeavour is the certainty of reaping at least part of the profit from an individual effort. This stimulation is wanting in the joint family. It happens frequently that whether one works or idles away his time he is certain of being looked after. The climate in such a joint family is not conducive to the development of individuality, initiative and enterprise as it is the duty of everyone in the family to simply receive orders and obey them. The head of the family is the only exception. Due to the spreading out of the income of a few over every one in the family, accumulation of capital becomes a rare possibility, thus shutting out opportunities for large-scale enterprises. The development of family affection has its beautiful side but it encourages stay-at-home habits making for immobility of labour. It stifles individual ambition."

In earlier days the joint family system in rural India undoubtedly served a useful purpose. It held the family as a close-knit unit in times of stress or of prosperity. It insured at least bare living for all but it stifled individual thinking, offered no reward for individual initiative, discouraged ambition and immobilized labour.

Western civilization and the industrial age that have raised the standard of living to a level never before known, was developed by encouraging individual initiative. The person who by his own thinking and work devised a new method or process of value to the public received some of the profits that accrued. The key note of progress has been personal ambition and initiative.

THE CASTE SYSTEM

During the long centuries of her history there developed in India a system of caste that cannot find parallel in the history of any other major nation in the world. Though slowly breaking down under the impact of an industrial age, caste still plays a predominant role in Indian society, especially in rural areas. Extension workers in villages may occasionally find the caste system of some small advantage in their work of upgrading village life but more frequently it interposes serious handicaps. They cannot be successful without having in mind a clear picture of caste and the role it plays in rural life.

In his excellent study *Introduction to Rural Sociology in India,* Dr. A. R. Desai comments:

"Numerous theories have been advanced to explain the origin, development, crystallisation and ultimate petrification of the caste system....

"In India, caste largely determines the function, the status, the available opportunities as well as the handicaps for an individual. 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 the rural area. Even land ownership exists frequently on caste lines. Due to a number of reasons, administrative functions have also been often divided according to castes, especially in the rural area. Caste has, further, determined the pattern of the complicated religious and secular culture of the people. It has fixed the psychology of the various social groups and has evolved such minutely graded levels of social distances and superior-inferior relationships that the social structure looks like a gigantic hierarchy pyramid with a mass of untouchables as its base and a small stratum of elite, almost equally

unapproachable, at its apex. The Hindu society is composed of hundreds of distinct self-contained caste worlds piled one over the other.

"... Caste appreciably fixes the food and dress habits or the choice of utensils and other articles of its members. This ... reacts on and influences production.

"... Religious life is determined rigorously by caste, especially in the rural area .... While in cities religious practices are slowly shrinking, in villages they flourish luxuriantly even now. It is the caste that rigidly determines the place of its member in the religious life of the people.

"Caste plays a big role in determining the nature and the personnel of the leadership of the rural society. Caste leaders are generally leaders also of the social, economic, political and ideological life of the rural society. As a consequence of this, caste struggles are often coeval with social, political, economic and ideological struggles in the rural zone."

Thus, we see over many centuries the development in India of a system that has divided society into a thousand castes and sub-castes. At the top are the priests and scholars with authority and privileges that breed in them a confidence in their own superiority not necessarily from accomplishments but just from the right of birth. By descending scale in privileges and authority at the lower end are castes denied through the years all aspirations, social, economic, political or educational, that breeds in them a spirit of inferiority, futility and abject docility.

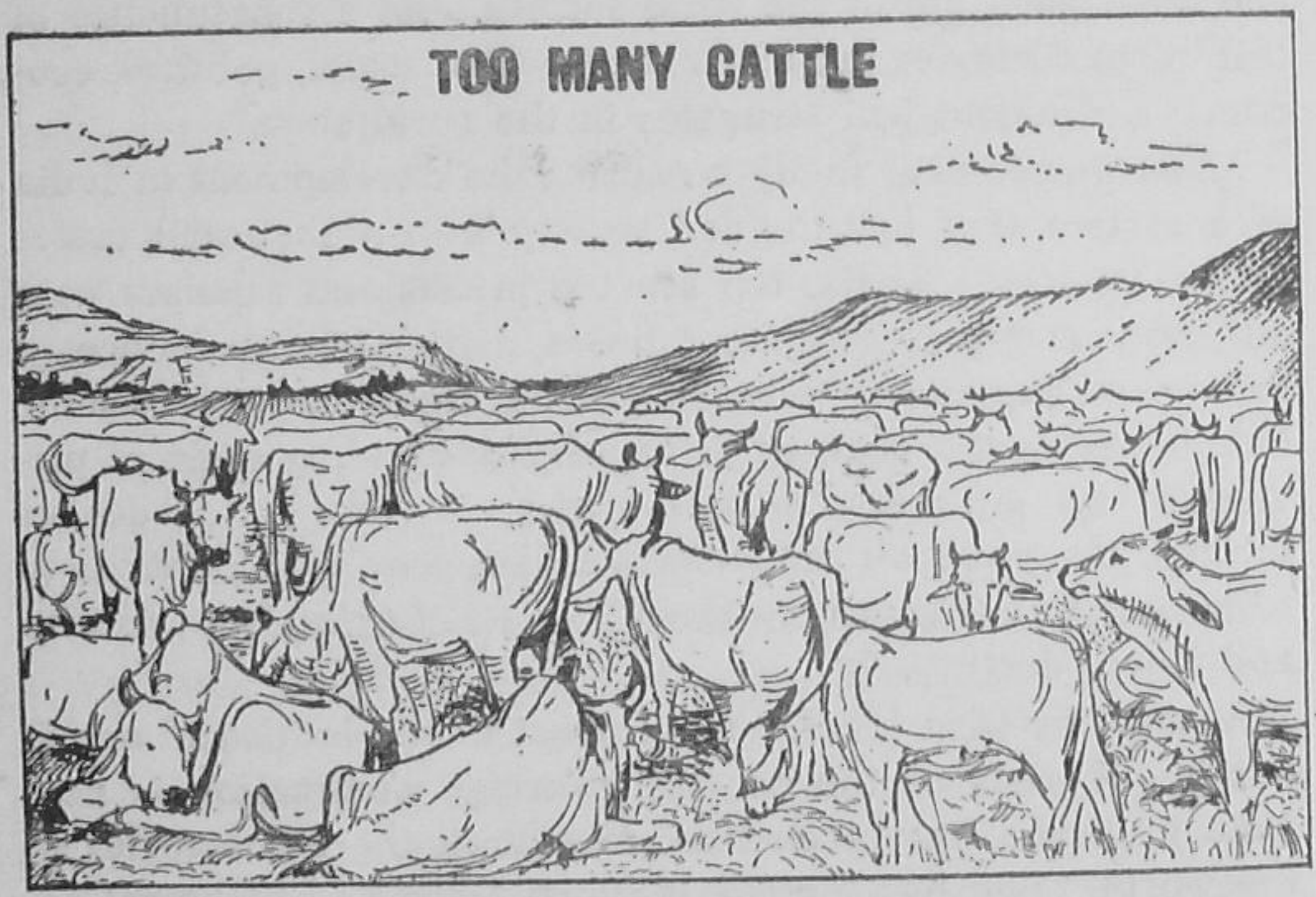
A new day is at hand. The impact of the industrial age is felt in all parts of the country. Foreign domination is now history. India has taken her place with the democracies of the world. She has invited Western loans and technical assistance in bringing about her own industrial and agricultural development. What effect on the caste system will follow this new development? What is the attitude of democratic India toward caste?

Dr. Desai comments, "The Constitution of the Indian Union has assumed as its postulate the individual citizen and not caste as the unit of Indian Society. Secondly, it has laid down equality of citizens and not hierarchically graded privileges based on the caste as the principle of State legislation. It has

chosen as its objective a democratic social order free from inequality and special privileges. Finally, the existing socio-economic structure is also based on the principle of contract between free and equal individuals and not on caste privilege. Individual contract and not caste status is the basis of all rights and responsibilities today."

THE PROBLEM OF TOO MANY CATTLE

India has great wealth in cattle. Without bullock power for agricultural work and to a large degree for transportation the country would be paralysed. At the same time cattle numbers have become a very serious threat to the food supply of the nation. The point has been reached where cattle are competing with people for food.



Sometime in the remote past the people of India were converted to the belief that cattle were sacred and their flesh forbidden as food, the only major nation in the world to adopt this belief. Even when cattle become old, diseased and useless they may not be killed. This was unimportant while the human population was relatively small and the amount of land sufficient to support both people and cattle. The explosive increase in human population since 1920 has greatly changed this situation.

India today has a population of 438 million people who are increasing each year by at least 8 to 10 million. Indian leaders predict a population by 1980 of 520 million or more and it is probable that this figure is a serious under estimation. Yet with today's population of 438 million, the average Indian is underfed even though the government has imported several millions of tons of food each year. With present population there is less than one acre of productive land per person.

India's cattle and buffalo population has increased to 204 million — nearly 25 per cent of the estimated cattle population of 855 million in the whole world. By comparison the United States has 97 million, China 74 million, Russia 65 million, France 17 million and Japan 3 million. In addition India has some 38 million sheep and 56 million goats.

To grow more food for human consumption is a major target in the Third Five-Year Plan. To accomplish this end it is planned to bring under cultivation many millions of acres of present waste land. Since cattle have quite largely depended for existence on grazing unfarmed land, every such acre brought under cultivation lessens the remaining acreage that cattle can graze. Even now cattle in general are sadly underfed. Poor nutrition is the most serious of problems in livestock management and production. This, and its relationship to cattle population, is recognized by India's own estimates that the present available feed supply is adequate for about 58 per cent of the existing livestock population. The milk yield of Indian cattle is among the lowest in the world and the size and work capacity of many of her bullocks is very low. Poor breeding stock is of course a factor in this condition but the principal reason is lack of sufficient food. Animal husbandry and dairy experts who have studied this problem are agreed that with well bred cows fed a balanced ration, the present milk production could be realized from much less than one half the present number of milk cows.

Many of these comments were based on an editorial on the cattle problem by K. Santhanam in, *The Hindu*. He stated: "The Hindu notion of sanctity is not confined to non-killing and non-eating of cattle flesh. Even dry

cows and buffaloes are not put to work. It is difficult to understand this prejudice as peasant women do their full share of agricultural work. If the people can be persuaded to discard this prejudice and use dry cows and buffaloes for ploughing, the cattle population can immediately be reduced by about 40 millions, which will be a great saving to national economy ....

"Increased production and use of animal vaccines and serums even though the quality standard of such products is low and an increase in the number of government operated veterinary dispensaries and vaccination centres, have reduced livestock mortality. It is estimated these factors are accounting for an annual increase of at least 6 per cent in the livestock population and as veterinary services are further improved the increase will become greater. The increasing livestock population, especially cattle, results in a greater pressure on the cultivable areas as livestock and human compete for food."

With human population in India already at an average density of 700 per square mile and still growing and with cattle and buffalo population well over 200 million and still growing the land of India even when farmed scientifically will be unable to produce enough food for both. Already there is active competition between people and cattle for food. How do you think this problem can best be met ?

Questions for Study and Discussion

1. In your field practices talk with the older men in several villages.

Have they any idea when the village was first built on its present site ?

How old are any of the buildings in the village ?

Are there enough artisans in the village to care for village needs ?

Are they compelled to call for outside workmen for certain needs ?

Is the village self supporting in food or are food materials purchased from outside ?

Do local spinners and weavers supply fully the village need for cloth ?

Do they produce a surplus for outside sale ?

Are villages in this community very largely self sufficient in all ways ?

If, not, in what fields do they depend on outside assistance ?

Is the idea of complete self sufficiency for each village a worthy ideal ?

Will it lead to progress and steady improvement of village life ?

How will it harmonize with the dream of widespread industrialization ?

2. From a book on state statistics find the density of population per square mile in this state.

If all lands were well farmed and all resources intelligently utilised what do you believe would be the maximum density of population per square mile that could be supported ?

3. Make a list of all epidemic diseases reported in this Community in the last three years.

What caused them ?

Could they have been prevented ?

Are proper measures being taken to prevent a recurrence ?

As you visit villages in your practicals, make a list of health hazards you can note. Discuss these in class. How can they be eliminated ?

Are any measures being taken to eliminate them ?

What three diseases cause the most deaths in India every year ?

What doctors are available to care for illness in the villages you have visited ?

What is their training ?

4. What per cent of children of elementary school age (5 to 11) in the villages you have visited are enrolled in school ?

What per cent of those enrolled in school continue attendance until they have finished Form 5 ?

5. Hold a class discussion on the role of religion in village life.

Make a list of all the phases of living that are affected by religious beliefs.

In your review of religious beliefs closely held in villages are there any beliefs that conflict with scientific evidence affecting farming or health practices ? If there are instances of such conflict, should extension workers strive to change such beliefs ?

6. List the desirable features of the joint family system.

List the questionable or undesirable features.

Is the joint family system a handicap to the rapid spread of industrialization and the newer and fuller life in India ?

Why is the joint family system disappearing much more rapidly in cities than in rural areas ?

7. Make a list of the castes and sub-castes found in the villages you have contacted.

Can members of a low caste become leaders in general village affairs ?

Can they seek election to the village panchayat with hope of success ?

Are they free to leave the occupation of their fathers and find work in new fields ?

Would they be accepted in new occupations ?

What are the opportunities of low caste children in seeking a good education ?

What are the chances of a man of low caste, even though he had unquestioned honesty and outstanding ability, of being elected to high political office ?

Why are caste lines less restrictive in cities than in villages?

Is the caste system holding back industrialization ?

Do you believe that India, now a democracy, should totally abandon all caste lines ?

Should this be done immediately or gradually ?

How soon do you believe all caste lines may disappear ?

8. The problem of too many cattle in India, and their competition with people for food, is a very serious one. There are many millions of old, diseased or worn out and useless cattle and buffaloes. Yet they all consume food needed by useful cattle. What can be done with them ?

Since all cattle calves are saved, there are far more bull calves than are needed for breeding or for work animals. How can their numbers be held in check ?

With approximately 50 million milk cows India does not produce nearly the amount of milk needed. The cows are largely poorly bred, under size and only half fed. One half the present number of cows would produce more milk than current production were they well bred and well fed, making possible a reduction of millions of cows. How can this be brought about ?

In the editorial in *The Hindu* by K. Santhanam, it is stated, "Old and useless cattle, like our beggar population, form an ugly feature of Indian economy .... The simplest way to deal with useless cattle is in my view to reserve certain forest areas and let them loose there. In any case they should not be allowed to eat away the little grass and fodder available for the milk and plough cattle in our crowded villages". Does this mean to turn them out to be eaten by panthers and tigers ? Do you agree to that solution ?

Indian scientists estimate that the number of livestock is increasing 6 per cent each year. In 1956, India had 204 million cattle and buffaloes. With the 6 per cent increase each year what will their number be in the year 2000?

What can be done to solve this problem ?

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Chapter 9

CHARACTERISTICS OF RURAL PEOPLE

From the earliest dawn of history man has been a gregarious being. He did not want to live alone. He felt the need for close membership in a group—first his family group, then the tribe or village community. For untold centuries his family and his small community constituted his whole world. It is only in comparatively recent years that intelligent men have expanded their attachment and loyalty to their state and nation and it is hoped the day is now at hand when that attachment and loyalty will be further expanded to include the brotherhood of all nations.

For uncounted centuries each Indian village was the whole world for its people. Distant travel was nearly impossible. No transportation was known save the bullock cart or camel. For most people their world ended only a few miles from their village. Science had not yet advanced and they knew no explantation for the phenomena of nature—thunder and lightning, high winds, torrential rains and raging floods, droughts and pestilences. They accepted these forces as the manifestation of the illwill of a god and even today such acceptance is common. It is not surprising that after countless generations of village-living certain well defined characteristics of rural people have developed—viewpoints, beliefs, attitudes and practices that have become an integral part of their very being.

Extension works with human beings. It seeks to bring about desirable changes in the attitudes, the habits and the practices of individuals, of family groups and of the village community. The wise extension worker will thoughtfully study the characteristics that through the centuries have been stamped so firmly on the rural mind and that in many instances are antagonistic to the introduction of scientific methods for upgrading rural living standards.

GENERAL CHARACTERISTICS OF RURAL PEOPLES

1. The rural attitude is fatalistic. Throughout the centuries man has done nothing to control the forces of nature, hence he never can. What is, is meant to be and cannot be changed.

2. Very few cultivators regard agriculture as a commercial enterprise. They see it only as subsistence farming. For centuries the primitive methods of cultivation handed down from father to son have stood the test of time in producing a scanty but certain minimum of food. Hence any suggestion for a change in methods is regarded as an unwarranted gamble.

3. For generations villagers have lived with little or no knowledge of the outside world, in almost complete spatial and mental isolation. Knowing only their own customs and practices they look with strong misgivings at innovations or suggestions for change. They possess an innate resistance to change.

4. Rural people are suspicious of all strangers. In their experience outsiders have usually exploited country people. Representatives of government have frequently come to collect an onerous tax. Private buyers from outside have cheated cultivators by paying them too little for the meagre produce they had to sell. Beware of all strangers!

5. Fear of ridicule is inborn in villagers. Even though a farmer may be inwardly convinced that a new method would increase his yield, he fears to employ it lest it fails and subjects him to the ridicule of his neighbours for having departed from traditional ways.

6. New methods frequently require additional investment for new seed, fertilizer or improved implements. The fear of losing his scanty capital decides many farmers to play safe with old methods.

7. Villagers are usually strongly family centred. Any decision to break with tradition and employ a new method must usually be a family rather than an individual decision. In many cases it must be a group decision involving several families.

These characteristics of rural people are found today in Indian villages. The wise extension worker is aware of them. He knows that at the start of an extension programme villagers will be resistant to new ideas or methods; that individuals can

seldom be led to make a decision; that early decisions will be made by leaders. He will cultivate the various caste leaders, religious leaders and leaders in the panchayat and seek their endorsement for the employment of improved methods.

Questions for Study and Discussion

1. Most villagers have very little knowledge of the outside world, even of their own state or nation.

By what means can an extension worker broaden their interests and viewpoints by bringing such knowledge to them?

2. Science can fully explain the forces of thunders and lightning, the cause of heavy rains and floods and the causes of epidemic diseases.

Should an extension worker try to give such explanation to villagers that they may understand the forces of nature?

3. National leaders decry the lack of national unity. They know that if India is to become a strong and great nation every citizen must first feel proud that he is an Indian citizen and the welfare of his country must come ahead of any other consideration.

Instead, there is constant bickering and struggle for selfish interests between States, between language groups, between communal groups, between religious groups.

What can an extension staff do in their work with rural people to promote pride in the fact that they are Indian citizens and that the interests of all India must come ahead of any other considerations?

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Chapter 10

EXTENSION WORKERS ARE TEACHERS: BASIC LAWS OF LEARNING

EDUCATION has been defined as the production of changes in human behaviour. Extension workers are continuously striving to bring about changes in the behaviour of cultivators and their families. They want cultivators to discard ancient methods of soil preparation and follow new techniques. They strive to show cultivators the advantages of better seed, of chemical fertilizers, of effective insecticides and with the profits that will follow their use to provide more and better food for their families, better clothing, better housing and happier living. This is teaching in its truest sense.

Every extension worker is a teacher. In the villages where he works are many teachers in elementary and secondary schools. They are primarily concerned with preparing their young pupils for adult living. They meet them daily in a classroom to which the pupils come more or less by compulsion. They teach formally organized courses in sequence—subject-matter that frequently has little use to boys and girls at the moment but that will be important in later life.

The extension teacher has no fixed classroom. His classroom is wherever he meets people. It may be a field, a home, a hall in a village or under the shade of a tree. His pupils range in age from boys and girls in Youth Clubs to gray haired men who are village leaders. His teaching is not by courses of study formally arrangd, but is on any problem of immediate importance in farming or rural living. His assignment is broad and at the same time specific:

1. To bring to his villagers knowledge of improved methods in farming that will make their work less arduous, more productive and more profitable.

2. To develop in them new skills and abilities.
3. To develop in them new attitudes and ideals, to discard ancient superstitions and replace them with a scientific attitude.

To be a successful teacher an extension worker must understand the basic principles that govern the learning process.

MOTIVATION IS BASIC TO LEARNING

Cultivators will not learn merely because the extension worker *wants* them to learn. They must have a *reason* for learning anything new.

People will learn if they can satisfy a basic need through learning. Sometimes this need may be felt only vaguely but it must be there if learning is to be effective.

The basic needs, wants and desires of people have been classified as follows:

1. The desire for security — economic, social, psychological and spiritual security.
2. The desire for new experience—adventure, new interests, new ideas, new friends and new ways of doing things.
3. The desire for affection or response—companionship, gregariousness and social mindedness; the need for a feeling of belonging.
4. The desire for recognition—status, prestige, achievement and being looked up to.

A successful extension worker must understand the basic wants of the individuals with whom he works. He then can show them how new knowledge, new methods, new skills will help the individual meet these wants. The most powerful motive for learning is to show an individual that the learning will be of value to him in attaining something that he wants.

ESSENTIALS IN ADULT LEARNING

There is an old and very true saying—"The teacher has not taught if the pupil has not learned". Since an extension worker is a teacher he should thoroughly understand the principal factors in adult learning.

1. Adults learn most rapidly when they have a strong desire to learn,

A cultivator has a crop that is being damaged by insects. He knows his crop will soon be destroyed unless the insects are killed but he does not know what spray to use, how to mix it or how to apply it. He comes to an extension officer for advice. He is eager to learn and will learn rapidly because there is a strong desire on his part to learn how to save his crop.

The desire to learn must be stimulated in many people by the extension officer. He must show them that learning a new method is important to them and will make them a higher income or add to their satisfaction in other ways. He then will have them in the frame of mind where they will *want* to learn.

2. Adults learn best when they have clear goals.

An adult learns best when he knows exactly what he wants to accomplish.

An extension worker has observed in a certain village the acre yield of paddy is very low. He holds a meeting with the farmers to discuss paddy production. He convinces them in the discussion that their yields are far too low and that they can increase their yields at least 50 per cent by growing an improved variety and by using chemical fertilizer. He fixes a goal in their minds—a 50 per cent increase in paddy yield. The cultivators are then eager to learn the methods by which this goal can be reached.

Set simple and direct goals in only a very few fields. The individual will become confused if too many goals are set. Set only one or two goals and teach how they may be reached. When these goals have been attained set new ones.

3. Adults learn best when they put forth an effort to learn.

Each individual must do his own learning. No one else can do it for him. Learning something new is never complete until it is put into practice. In teaching a new knowledge or a new skill the extension worker must follow through with each cultivator until the skill or knowledge has been put into practice. Only repetition or continued practice will completely establish the new learning as a habit.

4. Adults learn best when they receive satisfaction from what they have learned.

Adults learn best when they receive some reward from learning. This reward may be in the form of more profit from the sale of a crop grown by improved methods, in the satisfaction from a home improvement or in the esteem of their neighbours for leadership in a village improvement project. In every case success and reward from some new learning always disposes the individual favourably towards more learning. Satisfaction from one learning experience stimulate desire for learning in other fields.

STEPS IN TEACHING

The extension worker is a teacher. He is continually working to bring about desirable changes in human behaviour. If he is to meet success in his efforts, he must understand and follow the logical steps in teaching.

1. *Getting the Attention of the Learner* : Most cultivators are quite unaware of the great improvement in farming methods that have been developed by scientific research and how the employment of these methods can make farming so much more profitable. The first job of the successful extension teacher is to direct the attention of the cultivator to the newer method of farming suggested by the Research Institute.

2. *Stimulating the Learner's Interest* : When the attention of the cultivator has been directed to the newer method the next step is to appeal to his interest by showing him how the new method may be of value to him; how it may save him labour, or increase his yield and profit.

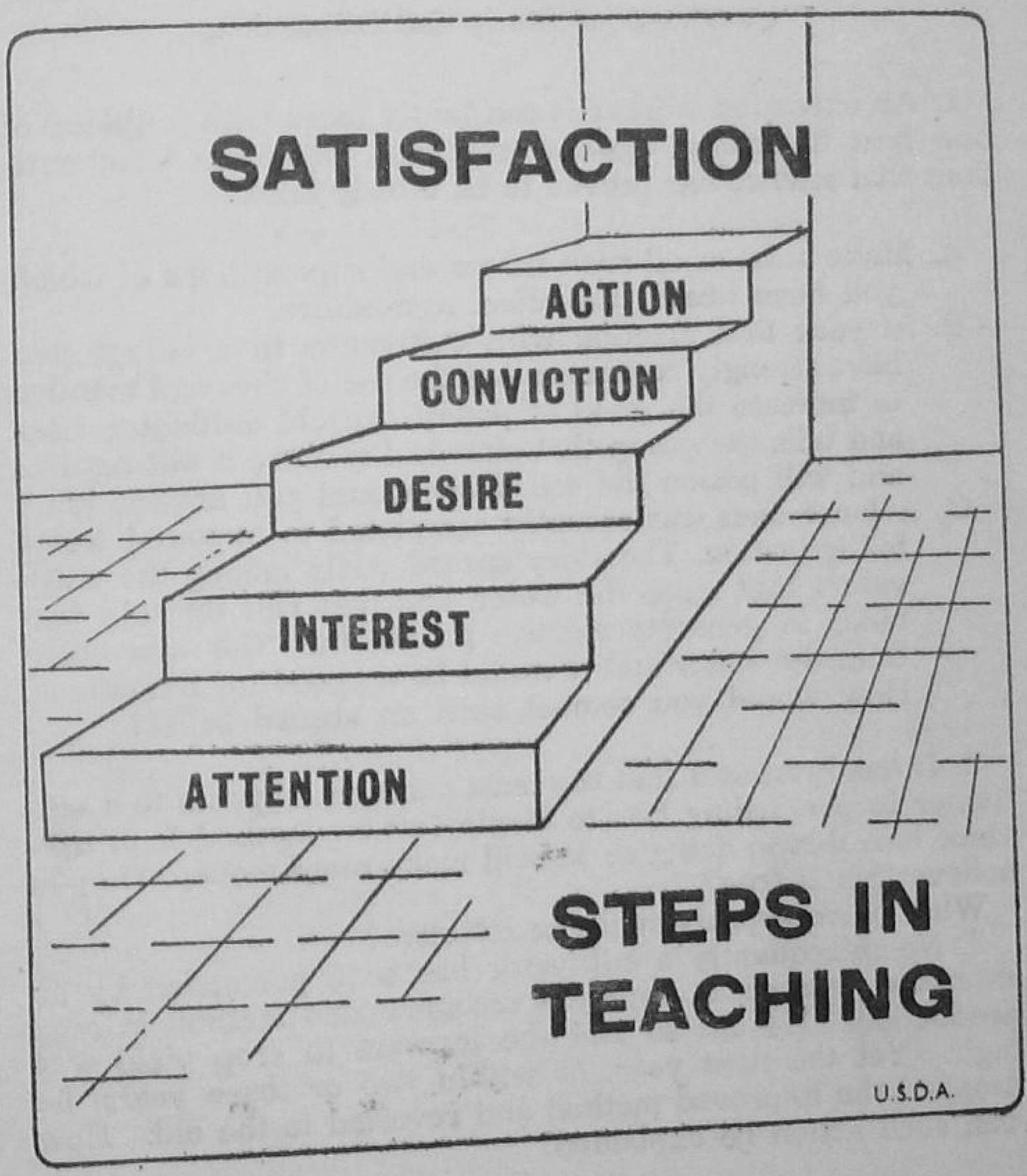
It is important that only one idea should be presented at a time or the cultivator will become confused. Concentrate on one improvement and how it may be employed.

3. *Arousing the Learner's Desire for Information* : When the attention of a cultivator has been directed to a new method and his interest aroused in the possibility that this new method may be of direct value in meeting his want, the cultivator will want to get all possible information on how the new method may be employed to his advantage.

4. *Convincing the Learner that He should Act* : An extension teacher has directed the attention of a cultivator to a new method, he has stimulated his interest, supplied him with all information on the new method. The next step is to convince

him that he must put the new method into operation. When a cultivator through the above steps has become convinced that the new method will lead to profit and satisfaction for himself, this is not hard to do.

5. *Getting Action by the Learner*: Teaching is without value unless converted into action. The extension teacher must do everything possible to make action easy. If the improvement requires fertilizer or an insecticide or new equipment, the extension worker must take the responsibility of arranging for its purchase by the cultivator at a convenient source and at a fair price. The cultivator by himself cannot do this and he will not act if there are blocks in the way of action.



6. *Making Certain that the Learner Obtains Satisfaction from His Action*: The extension worker has a follow-up job. He must help the learner evaluate the progress made, measure an increased yield and strengthen the satisfaction obtained. A cultivator that meets a want by the successful application of a new method becomes a local leader in influencing his neighbours to satisfy their wants by following the same practice and he finds prestige and satisfaction in teaching and helping them. Further, when a cultivator has employed a new method and realised profit and satisfaction from its employment, he gains confidence in his own ability to learn and is ready to try yet other new methods.

Questions for Study and Discussion

1. An extension worker is constantly faced with problems of how best to combat age-old traditions, taboos and superstitions that science has proved to be utterly false.

A. Make a list of all such taboos and superstitions of which you have heard that affect agriculture.
B. In your first meeting with cultivators in a village you have strongly recommended the use of chemical manure to increase the yield of paddy. An old cultivator rises and tells the group that chemical manure is not natural and will poison the soil. How would you answer him?
C. A large dam was recently completed to impound water for irrigation. The story spread widly among the cultivators that since the water was first run through turbines to generate electric power, the "life was taken from the water and it would be no good for irrigation". How would you combat such an absurd belief?

2. It has been said that the most successful appeal to a cultivator in persuading him to employ a new method is to convince him that in doing so he will make more money. Do you believe this is true?

What other appeals might be effective?

3. No infrequently a cultivator has been persuaded by an extension worker to employ a recommended method in crop production. He did so and the increase in crop yield was high. Yet the next year, or within two or three years, he dropped the improved method and reverted to the old. How can such action be explained?

4. True learning has not taken place until there is a change in human behaviour. Such a change in behaviour does not usually follow a single exposure to or explanations of a new idea. There must be repetition of suggestion.

As an extension worker you have noted the low yield of paddy on the village lands. You want the cultivators to use commercial fertilizer to increase their yields. You call a group meeting of cultivators and have a good attendance. You explain to them the benefits that will follow the use of commercial manure. They listen attentively but are not fully convinced.

What method other than words can you employ in this meeting to convince them that they should use commercial fertilizer?

The cultivators leave the meeting not yet convinced to the point of action. What "follow-up" methods or "repetition" methods can you then employ to bring them to the point of action?

REFERENCE

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Chapter 11

THE RELATION OF EXTENSION, RESEARCH INSTITUTES, AGRICULTURAL COLLEGES AND OTHER AGENCIES

THE peoples of the world are hungry. It is said that more than half of the world's population go to bed hungry every night. The Second World Survey made in 1952 reported that per capita food production had dropped almost 15 per cent below the pre-War level. A few countries like the United States, Canada, Australia and New Zealand where population is low in proportion to land resources have food surpluses for sale in the markets of the world. Many other countries may have a surplus of one kind of food that they will sell or barter for other foodstuffs in short supply but the sum total of food in the world is insufficient for the people of the world. Each year this shortage grows more acute as world population continues to double every forty to fifty years.

In the past ten years India has had to purchase millions of tons of wheat, rice and other food grains to augment home production. Even then the common people do not get enough food for full vigorous health and the 438 million people in India are increasing by 8 to 10 million every year, adding a demand for more than two million tons of food each year over the amount needed the year before.

Will the day come when people of the world will face starvation? No one can tell what conditions may be in another 500 years, or even in another 100 years. We do know, however, that present food production can be very greatly increased by the employment of scientific methods of farming that are now known, and still further increased by still more scientific methods that will inevitably be discovered by the army of agricultural scientists all over the world who are engaged in research.

Three great departments of learning are the agencies that must carry the responsibility for bringing about ever increasing food production. They are: Research, Teaching and Extension. They must work as a team. If any of the three fail in their role, it will be as though all the three had failed. Although each is a separate department they are interdependent and only their sun total efforts can develop greater food production.

1. RESEARCH INSTITUTES

At Agricultural Research Institutes, in laboratories with test tubes and microscopes, on plots of land under controlled conditions, our best scientists in Chemistry, Plant Pathology Genetics, Entomology, Agronomy, Animal Husbandry and many other fields are working daily to learn more of the laws of nature and through an understanding of these laws, direct the processes of production to greater efficiency. Through plant breeding new varieties are developed that are heavier in yield, higher in quality and more resistant to disease and insect damage. New fertilizers are formulated, new insecticides compounded and their qualities proved under actual field trials. Animal husbandry men try new schemes of breeding and new plans in animal nutrition that will make our herds and flocks more productive. Nearly all we know today of advanced production methods was discovered and proven by research scientists through careful, painstaking study and experimentation. It is heartening to know that research never ends. We have as yet scarcely scratched the surface of what can be known. Almost every day announcement is made by some research scientist or team of scientists of some new knowledge in food production that has been discovered and proved.

The end goal of agricultural research is not the completion of an experiment nor the development of a new hybrid nor the formulation of a new fertilizer, then to be written up by the researcher and filled in a library. The end goal of all agricultural research is the widespread adoption of the new process by cultivators with resultant increase in production. This the research scientist by himself cannot bring about.

2. THE AGRICULTURAL COLLEGE

The next step in teamwork is by the College of Agriculture. To the College each year comes a small army of the brightest young men in the country. The College of Agriculture has three or four years in which to train them in the science of agriculture. All must be given certain basic courses in Mathematics, Chemistry, Bacteriology, Botany, and other sciences so that they may understand and appreciate their later study in Agronomy, Horticulture, Animal Husbandry and all agricultural fields in which they are taught the latest and most scientific methods of production. These methods were developed in Research Institutes. Thus, the latest findings of research become the study of young men in College. These young men rarely become farmers. Perhaps a few will go out as managers of large farms, more will go into private industry or, after post-graduate work, will become teachers or research scientists. But a very very large number will be posted for field work in *extension*.

3. AGRICULTURAL EXTENSION

The third step in teamwork in bringing the results of research into actual practice on the land is Agricultural Extension. Trained in College in the latest scientific methods in food production, trained as well in the philosophy and methods of extension, college graduates go to villages as extension workers and through personal contacts with cultivators, demonstrations, group meetings, news letters, radio and all other extension methods teach the cultivators scientific methods in food production and influence them to employ these methods. Only when scientific methods are actually employed by cultivators can the final goal of Research, Teaching and Extension be achieved.

The extension worker has a second and very important role. He is in daily contact with cultivators. He talks with them and works with them. He sees at first hand the problems perplexing them and it is his opportunity to bring to the attention of research agencies new problems facing the cultivators that can be solved only by research study. He is the contact-man between the farmers and Research Institutes. He sees new problems that arise in farming and brings them

to the Research Institute with request for their assistance in finding a solution.

India plans by 1961 to have Extension Service covering all of her more than 500,000 villages.

Thus, we have a chain. Improved methods developed in research are taught to young men in College, who, in turn, through extension education bring the methods into actual employment by cultivators. If one link of the chain is weak this goal is not attained.

As we study the organization and functioning of Research, Teaching and Extension in India certain weaknesses become apparent: certain improvements can be suggested.

1. Research is sometimes too departmentalized, so much so that there is not full co-operation between agronomists and soil specialists, between plant breeders and plant pathologists or other specialists in their respective sciences. In a research problem a scientist in any field can be assisted greatly by fellow-scientists in other fields. Such research should be a team project rather than an individual responsibility.

2. Research scientists should not live and work in an ivory tower of seclusion. Their results can be of widespread value only by being taught to many others. There should be much closer co-operation between researchers and teachers. Each would be better in his own field if he had experience in the other. If research men could do a limited amount of teaching and teachers be permitted to carry on certain research problems both would profit. Closer teamwork would follow. Each would be better in his own field because of his intimate knowledge of the other.

3. Research scientists by the absorbing nature of their work have too little contact with actual farms and farmers. They are too divorced from the farmers' problems. Many times they carry on exhaustive research on problems of little value to cultivators.

With their close knowledge of science, research workers should be called frequently to assist in extension field work as subject matter specialists. With an extension worker they should visit farms, talk with farmers, learn of troublesome farm problems at first hand. It will show them the fields in which there is immediate need for research and guide them in

laying out research problems that will be of greatest value to cultivators.

4. This holds equally true with college professors. Agronomists who year after year teach their subject to classroom students only, Animal Husbandry instructors who never see a flock or herd under farm conditions, entomologists who teach only in a museum, soon lose touch with actual farming and farm problems. Their teaching gets in a rut, repetition year after year of the same set courses. Successful teaching of agriculture can never be divorced from the farms of actual cultivators. Professors of agriculture as well as research specialists should visit actual farm and assist in extension meetings to keep them in close touch with ever changing farm problems.

5. Extension workers need the same close continual contact with their College of Agriculture and Research Institutes. True, when they leave the campus and are posted in extension they serve under a separate department of Government. It is so easy to feel that they are independent, to develop jealousies and rivalries with Research and Teaching. It is so easy for each agency to adopt a "hands off" attitude with the others, to refuse all co-operation. This greatly lowers the effectiveness of all. Only through unselfish teamwork between Research, Teaching and Extension can the right kind of research be directed, taught in the College and carried by Extension to cultivators so that scientific methods will be employed and food production be increased.

America is fortunate that from the start the administration of Research, Teaching and Extension was entrusted to the College of Agriculture in each State. The Deam of the College of Agriculture is responsible for the functioning of all three services. With a common head and common direction, jealousies have been avoided, co-operation assured and the spirit of teamwork highly developed.

Common administration of the three services in India does not at present exist but steps are being taken in that direction in several States. As a minimum, mutual respect and close co-operation between the respective responsible leaders is necessary. Without co-operation and close teamwork, the common goal of increased food production and the upgrading of the lives of cultivators cannot be attained.

PRIVATE OR VOLUNTARY AGENCIES OR SOCIETIES

The goal of extension is to educate people to recognise their own problems and work out their solutions. Private agencies or societies such as a Grapegrowers' Society or a Poultrymen's Association are groups of farmers who have a common interest and meet periodically to exchange experiences, discuss problems and seek newer and more efficient methods of production. When needing help, they call for the services of an extension officer. Such societies are working for the betterment of agriculture. Extension has a duty to promote such societies and assist in their organization and to encourage and assist in the programme of the organization.

DEVELOPMENT AGENCIES

Village development is a many-sided task. Agricultural extension is given the responsibility of working with cultivators to the end that production of food be greatly increased through the employment of scientific methods in farming. Other agencies and departments have been organized to initiate and carry out development in many other fields of village welfare.

A few of the important Government agencies working for village improvement are listed here:

Department of Public Health.
Department of Co-operation.
Department of Public Instruction.
Department of Rural Industries.
Department of Agriculture.
Department of Animal Husbandry.
Department of Horticulture.
Department of Sericulture.

With such agencies extension should understand the objectives of the agency and the work they plan in a village and should pave the way for their effective work by explaining to villagers the need for the services of the agency and what the agency will strive to accomplish for the village. Extension should always establish and support a friendly working relationship with the personnel of the agency.

Questions for Study and Discussion

1. Make a list of the many ways in which the College of Agriculture can be of service to agricultural extension officers in the field.

Make a list of all ways by which an agricultural extension officer in the field can be of service to the College of Agriculture or to the Research Institute.

2. Extension at present is administered by its own department in State Government. Were an agricultural extension officer to request help from the College of Agriculture in solving a farm problem would the State Director of Extension or his own B.D.O. object on the grounds that he was asking for assistance from an outside agency?

3. You have assisted in the organization of a private society of grapegrowers and in helping them set up a good working programme. You have attended their first three meetings. Officers of the new society now insist that it is your duty as their local agricultural officer to attend every meeting of the Society.

How would you explain to them that it will be impossible for you to attend every meeting and that it is not your duty to do so.

4. Study the control and administration of the College of Agriculture, of the Research Institutes and of Extension in this State.

Is each given its direction by a separate body of Government?

Is there any provision in the law that these three services should co-operate closely and act as a team in helping solve the problems in agriculture?

In your years at the College of Agriculture and in your contacts with the Research Institute and with agricultural extension have you seen instances of co-operation and teamwork?

If in your opinion close co-operation and teamwork is lacking, what changes could you suggest in control and administration of the three services that would promote the needed teamwork?

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Bliss: *Spirit and Philosophy of Extension Work.*
Kelsey and Hearne: *Co-operative Extension Work.*
Horace Holmes: *Co-operative Agricultural Extension.*

CHAPTER 12

IDENTIFYING RURAL PROBLEMS AND PLANNING SOLUTIONS

NO MEMBER of a Block staff in any Community Development Block needs to be convinced of the number or the enormity of the problems facing village life in India. An extension worker making a first visit to any village in his Block could not fail to note the low crop yields, fragmented land holdings, limited employment, poor roads, dirty cluttered living, evidences of poor health, poor housing, poor or no educational facilities for the children, too many cattle of very inferior quality—these problems and many more are quickly apparent. They are the basic causes of the very low scale of village living. Leaders in the new Indian democracy are determined that the nearly eighty per cent of the population of this country, who live in villages shall be assisted in a great uplift that will make village life wholesome and happy. That is why Government has organized a nationwide Extension Service to help villagers help themselves.

Undoubtedly an extension worker, on fire with enthusiasm to upgrade village life and impatient with slow improvements has wished at times that he had autocratic power to marshal all adult villagers in work squads, order this squad to build a needed school house, that squad to clean the village tank and farmers to employ all improved practices that he would direct. It is fortunate indeed that such authority can never be exercised. Improvements brought about by compulsion would lapse and be forgotten as soon as the directing authority had departed. Several countries under dictatorial rule have tried to bring about improvements by mandate but in every case met with such widespread resistance from the affected people that their efforts ended in failure. An extension programme does not give commands. It starts with the

felt needs of a people and through education assists the people in finding solutions to their own problems.

When an agricultural extension worker begins his first work in a village his practised eye will immediately note the apparent deficiencies in agricultural practices that are responsible for the low yields but he must remember that the starting point of any village improvement must be a felt need of the people. People can be led to work energetically to realize a felt need where as their attitude would be listless and indifferent toward the solution of a problem that they considered unimportant, even though such problem was really urgent. The extension worker therefore will first try to learn the thinking of the villagers as to their needs. He will:

1. Make friends with individuals in the different sectors and groups in the village and by asking tactful questions will encourage them to talk freely of what they believe to be primary needs.
2. Contact local leaders both individually and in groups and discuss village needs with them.
3. If there are local committees of any kinds he will seek their opinion.
4. He will counsel with farmers, both tenants and owners.

A composite of such contacts will usually develop clearly the problem or problems with which the villagers are immediately concerned.

It has been emphasized that a successful extension programme must begin with *felt needs* of the poeple. This does not preclude the extension officer, by tactful questions, hints or suggestions helping villagers to recognise important problems of which they may be unaware. It is both his privilege and his duty to offer guidance in helping villagers identify fields in which improvement is needed and to choose for action those fields where the need is most urgent.

When an agricultural extension worker first tries to determine the most common felt need, he usually finds the villagers discontended with the amount of food produced. As years have passed by the population of the village increased, more food was needed, but crop yields remained very low. The

felt need then was for more food. Low crop yields was the problem.

The problem is now established and the extension worker writes it down. Next he thoughtfully lists the causes of the problem. He may list:

1. Poor tillage from following age-old methods and using primitive tools.
2. Use of old, low yielding varieties. Lack of knowledge of new, scientifically bred varieties.
3. Use of poor seed.
4. No measures taken against plant diseases or insect damage.
5. Little or no use made of compost manure.
6. Little or no use made of commercial fertilizers due to complete lack of knowledge of their power and value.
7. Uncertain water supply and improper use of available water.
8. Fragmented land holdings that make impossible the use of modern tillage tools.
9. No use made of green manure through lack of knowledge of its value.

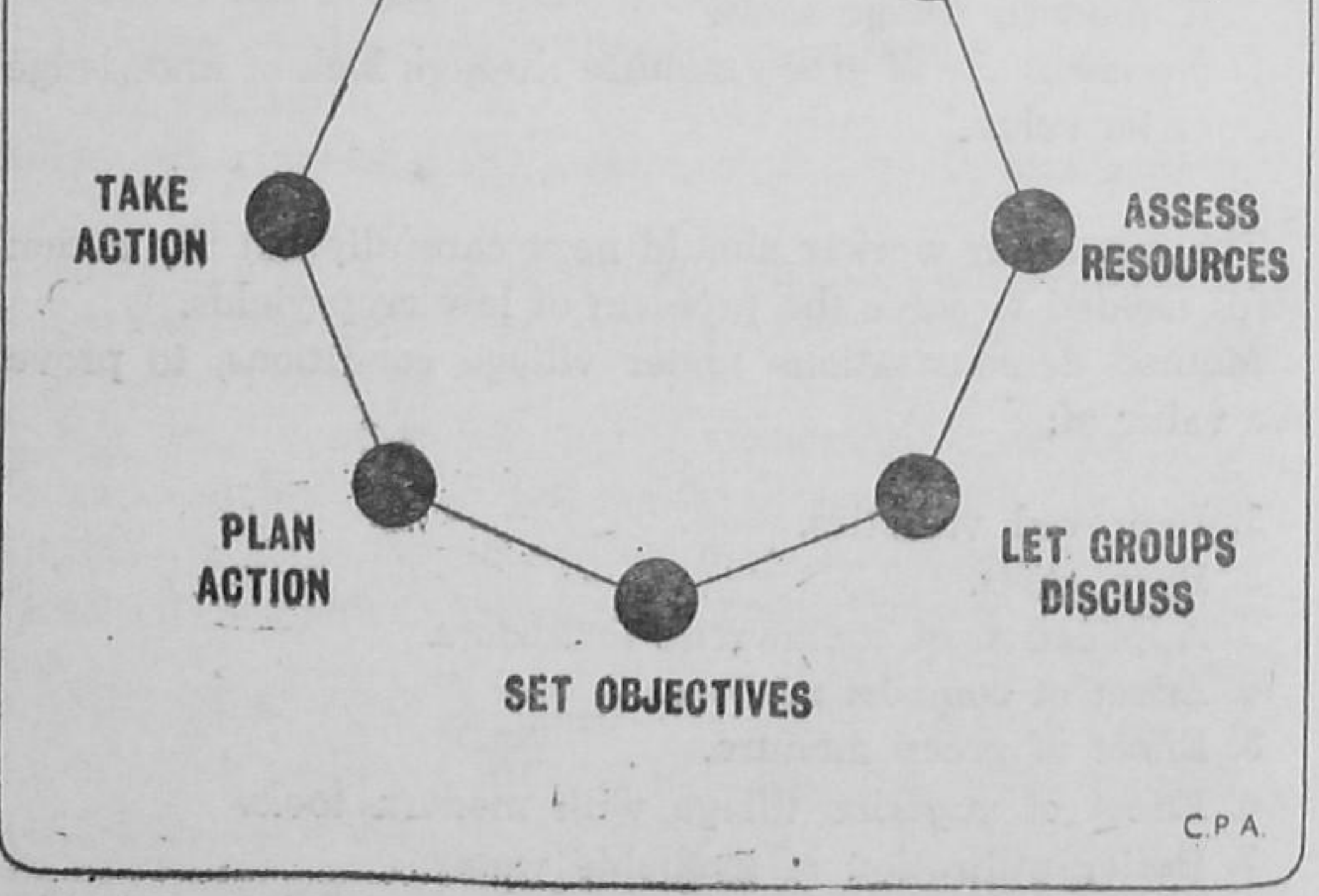
The extension worker should next carefully list the action steps needed to solve the problem of low crop yields.

Method demonstrations under village conditions, to prove the value of:

1. Improved varieties.
2. Pure seeds.
3. Application of commercial fertilizers.
4. Effect of compost manure.
5. Effect of green manure.
6. Effect of superior tillage with modern tools.
7. Better utilization of available water.
8. Improved practices that help store and retain water in the soil.

When the problem, the basic causes of the problem are carefully considered and action steps to solve the problem

have been so outlined and presented to and approved by the Block Development Officer, the agricultural extension workers will have a clear-cut plan for their own guidance. It will not be presented intact to village leaders or to villagers.



Rather, through village leaders, by individual contacts and group meetings, extension workers will strive to lead the villagers to (1) recognise the problem, (2) probe for the

reasons it is a problem and (3) formulate their own objectives for its solution. To aid the villagers in reaching sound decisions and in starting an action programme they will use every tool in the extension tool bag — individual contacts, group meetings demonstrations, films and slides, tours and exhibits. When the people recognise a major problem, carefully consider its causes and unite on a plan for its solution it becomes a *peoples'* action programme and real results will be achieved.

(Adapted in part from *Guide to Community Development* by Ensminger).

There is an old saying that "nothing succeeds like success". If agricultural workers can wisely guide village farmers to a real success in their first and sometimes timid break with traditional methods and the employment of scientific recommendations, they will find in the farmers a pride in accomplishment that will make much easier their guidance in further problem recognition and action programmes for improvement.

Questions for Study and Discussion

1. You have all visited villages in the college block. In class discussion make a complete list of all conditions you have observed that need immediate improvement. Have a classmate write the list on the blackboard.

The instructor will then divide the class into teams and assign one problem to each team. Each team will then work out the causes of the problem assigned to it and an action programme for its solution.

The chairman of each team will then present the causes and the action programme before the whole class for additions or corrections.

2. Land fragmentation frequently leads to pieces of land so small or so irregular in shape that good tillage is impossible.

What can an agricultural extension worker do to correct this condition?

3. What reasons can you suggest why all attempted programmes for the improvement of agricultural production by Government enforced measures have failed?

Why did farmers resist?

4. Experienced extension workers in agriculture have reported that their efforts for improvement have sometimes

been handicapped by a complete apathy on the part of farmers—a belief that "what is has always been and always will be" and no change is possible.

Can you suggest how such an apathetic attitude can be changed?

REFERENCES

Ensminger: *A Guide to Community Development.*

How to Achieve Village Group Action, Indo-American Tech. Co-op. Programme.

Chapter 13

EXTENSION METHODS

EXTENSION METHODS CLASSIFIED

The extension worker is always a teacher. He must anticipate the varied learning situations with which he will be faced. He must plan the teaching activities he will use and the teaching tools most appropriate. Success in bringing about desired changes in behaviour with his learners frequently depends on the teacher's skill in arranging the best learning situations and in using the most effective methods of teaching in that situation.

Extension teaching makes use of the same general methods of communication that are in use in other fields of teaching. In college a professor of Agronomy lectures to his class. He is using oral instruction or the spoken word. Following the lecture he leads his class in discussion. This is a group meeting with all participating. He shows slides illustrative of his lecture. This is visual instruction. From his platform before the class he carefully shows them how to use delicate scales—a method demonstration. He leads the class to the fields in the college farm to witness the difference in fields of experimental varieties. This is a result demonstration. As the class is dismissed, he gives each student a sheet of directions for a laboratory exercise. This is instruction by use of written words.

These basic methods, modified or combined as occasion may demand, are the tools of the extension worker also but employed in a totally different setting than a college classroom and with totally different objectives. The extension worker may teach an individual cultivator by the roadside or a group meeting of thirty in a village. In the same class he may have illiterate and highly literate individuals with varied interests. He is not teaching an organized course of

study. His course of study is the immediate problems of the cultivator and his family, the solution of which will lead to greater production or happier living.

The end result of all education is to bring about desirable changes in human behaviour. Whether the extension worker is attempting with an individual or with a group to develop an awareness of a problem or of steps in its solution, the effectiveness of his efforts will be strongly influenced by his choice of teaching methods. He must have a thorough knowledge of the capabilities and the limitations of each method and its adaptability to varying situations. A careful study of each method, of its advantages and its limitations is essential.

In many teaching situations an extension worker will find that the use of two or more methods will be much more effective than the employment of any single method. Research has proved this to be true. The summary of such research studies will be presented a bit later.

Extension methods may be classified in various ways. We will consider two classifications as they appear in U.S.D.A. circular 495.

METHODS CLASSIFIED ACCORDING TO USE

Individual contacts	Group contacts	Mass contacts
Farm and home visits.	Method demonstration meetings.	Bulletins.
Office calls.	Leader training meetings.	Leaflets.
Telephone calls.	Lecture meetings.	News stories.
Personal letters.	Conferences and discussion meetings.	Circular letters.
Result demonstrations.	Meetings at result demonstrations.	Radio.
	Tours. Schools.	Exhibits.
	Miscellaneous meetings.	Posters.

Individual contacts are many times concerned with a request for information on some special problem of the cultivators.

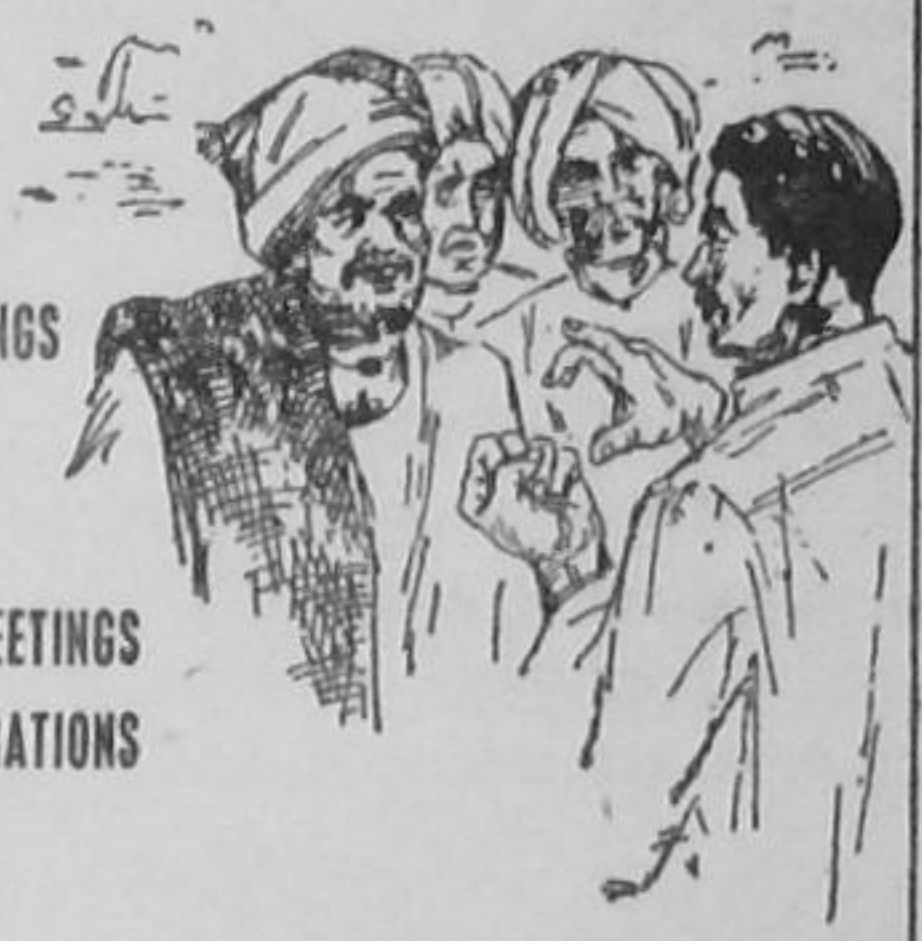
EXTENSION METHODS CLASSIFIED ACCORDING TO USE

Individual Contacts

- FARM & HOME VISITS
- OFFICE CALLS
- PERSONAL LETTERS
- RESULT DEMONSTRATIONS

Group Contacts

- METHOD DEMONSTRATION MEETINGS
- LECTURE MEETINGS
- LEADER TRAINING MEETINGS
- CONFERENCES & DISCUSSION MEETINGS
- MEETINGS AT RESULT DEMONSTRATIONS
- TOURS
- SCHOOLS
- MISCELLANEOUS MEETINGS



Mass Contacts

- BULLETINS
- LEAFLETS
- NEWS STORIES
- CIRCULAR LETTERS
- RADIO
- TELEVISION
- EXHIBITS
- POSTERS

Group contacts involve meetings with a small group or in some cases with a large group of individuals who have a common problem or interest. All kinds of meetings on any subject are included.

Both individual and group contacts are face to face. Mass contact methods are employed by extension workers to bring information to great numbers of people. Several methods widely used by extension workers in literate and developed countries have little present value in India but will become increasingly important in future years as illiteracy is conquered. Included would be telephone calls, circular letters and radio.

METHODS ADAPTABLE FOR PRESENT DAY INDIA INCLUDE

1. Direct contacts.
2. Result demonstrations.
3. Method demonstrations.
4. Working with village leaders.
5. Visual aids of all kinds.
6. Bulletins (limited use).
7. Tours.
8. Specimens, models and exhibits.
9. Dramas and songs.
10. Block information centres.

METHODS CLASSIFIED ACCORDING TO FORM

Written	Spoken	Objective or Visual
Bulletins.	General and special meetings of all kinds.	Result demonstrations.
Leaflets.	Farm and home visits.	Exhibits.
News articles.	Office calls.	Posters.
Personal letters.	Telephone calls.	Motion pictures, charts, slides and other visual aids.
Circular letters.	Radio.	

Method demonstration meetings.
Meetings at result demonstrations.
Meetings involving motion pictures, charts and other visual aids.

METHODS CLASSIFIED ACCORDING TO FORM

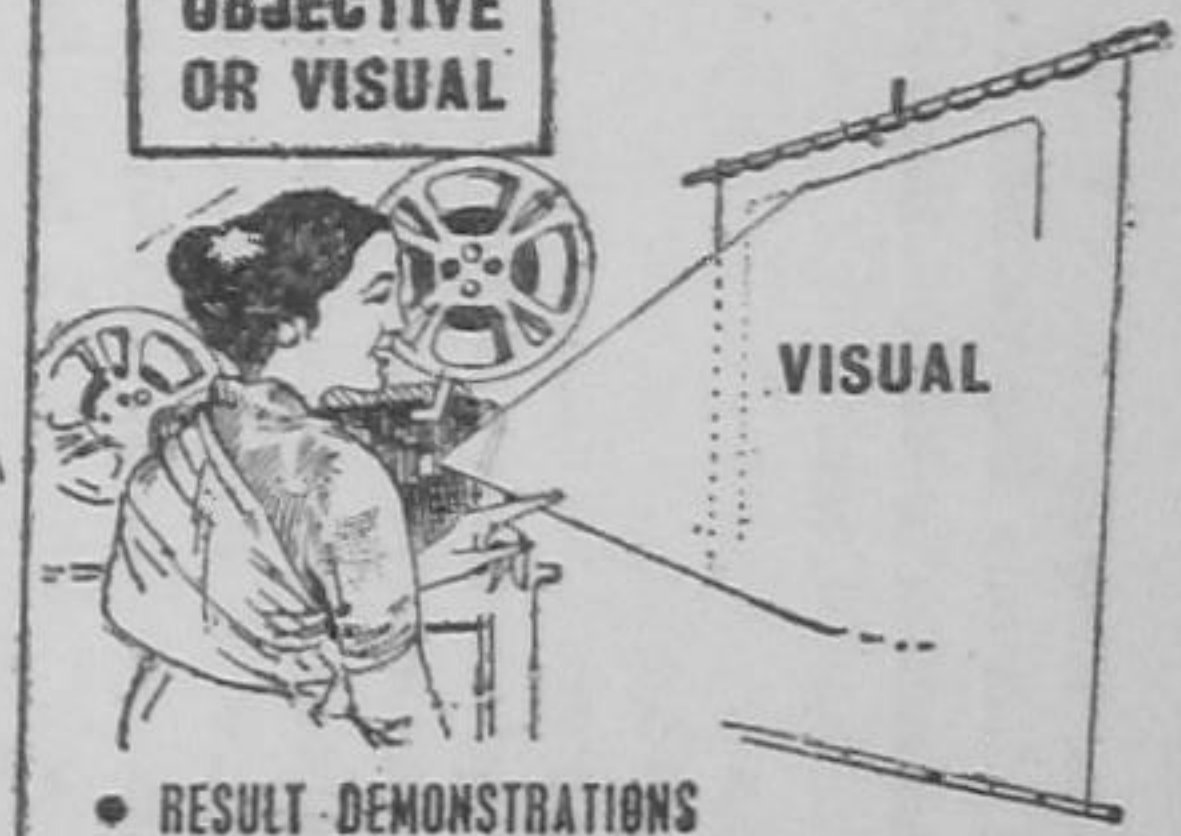
WRITTEN

- BULLETINS
- LEAFLETS
- NEWS ARTICLES
- PERSONAL LETTERS
- CIRCULAR

SPOKEN

- GENERAL & SPECIAL
- MEETING OF ALL KINDS
- FARM & HOME VISITS
- OFFICE CALLS
- TELEPHONE CALLS
- RADIO

OBJECTIVE OR VISUAL



- RESULT DEMONSTRATIONS
- EXHIBITS • POSTERS • MOTION PICTURES, CHARTS, SLIDES, & OTHER VISUAL AIDS.

METHOD DEMONSTRATION MEETINGS
MEETINGS AT RESULT DEMONSTRATIONS

MEETINGS INVOLVING MOTION PICTURES
CHARTS, AND OTHER VISUAL AIDS, TELEVISION

INDIRECT INFLUENCE

AN ANALYSIS OF EXTENSION METHODS

We have named and classified the various methods most commonly employed in extension education. Each one is worthy of individual study. We should ask:

What are its advantages?

What are its limitations?

How effective has it proved in influencing cultivators to employ improved practices in their farming operations?

A few years ago an exhaustive study of the effectiveness of various extension methods was made in the United States. A complete list was made of the improved practices that make farming efficient and profitable. Thousands of farmers were then visited and each asked to tell how he had been influenced to adopt and put into practice the improved methods in evidence on his farm. Had it been because of a personal visit by an extension worker to his farm? Had he learned of the new practice and been persuaded to try it in a group meeting of farmers called by an extension worker? Had he learned of the new method and its advantages through study of a bulletin sent to him by the College of Agriculture, or read of it in a farm paper or learned of it over the radio?

In our study of various methods in extension education the effectiveness of each as shown in the American study will be included as a matter of interest. These findings of course would not closely apply to India. American farmers are highly literate, usually subscribe to atleast one farm paper and can be reached daily by radio. Indian conditions are very different and the results of the American study would not apply here. They are, however, indicative of the manner in which farmers learn.

INDIVIDUAL CONTACTS

A. *Farm Visits*

Purpose of visit may be:

1. In answer to a request for help by a cultivator.
2. To secure a co-operator in setting up a result demonstration.
3. To get assistance in arranging a local meeting.
4. To influence the individual on some specific improved practice such as trying a new variety.

5. To obtain information on local conditions and people.
6. To build good public relations by calling on key individuals, elected officials or officers of local organizations.

In U.S. each agent has an average of 2000 farm families and makes 400 individual visits each year.

Advantages

1. A farm visit gives the extension worker first hand knowledge of farm and home conditions and the point of view of farm people.
2. It builds confidence on the part of farmers in the extension worker.
3. It contributes to the selection of better local leaders and demonstrators.
4. It develops good public relations.

Limitations

1. A farm visit requires a relatively large amount of agent's time.
2. The number of such contacts that can be made is definitely limited.
3. The time of visit is not always opportune for the farmer.
4. There is danger that the extension worker may visit progressive farmers only and neglect those families where personal contact is most needed.

Effectiveness

13 per cent of improved practices adopted by farmers was attributed to influence of farm visits.

Office Calls

U.S. average per agent 1102.

The agent's office must be conveniently located. The office should be kept neat and attractive. The agent should show sincere interest in visitor's problem. The agent should keep record of all calls. Some calls may need a follow-up.

Advantages

1. The caller is likely to be highly receptive to learning.
2. An office call is economical—use of agent's time.
3. An office call shows interest and confidence by the farmer in extension programme.

Limitations

Office contacts are removed from the farm and may not reflect the real problem or accurately reveal pertinent conditions.

CORRESPONDENCE

TELEPHONE CALL

OFFICE CALL

INDIVIDUAL CONTACT

Teaching Effectiveness

8.4. per cent of all practices changed as the result of extension teaching was credited to office calls.

Telephone Calls: (*not applicable in India*)

U.S.—1952-8,575,000 calls.

Usual purpose of calls: To request bulletins, to make programme arrangements, to arrange for 4H. Meetings.

Effectiveness

Less than 1 per cent of approved practices adopted was attributed to influence of telephone calls.

Personal Letters

A good letter should be:

1. Complete—give all necessary information.
2. Concise.
3. Clear.
4. Correct.
5. Courteous.
6. Neat.
7. Be written in simple language.

Effectiveness

3·3 per cent of approved practices adopted was attributed to the influence of personal letters.

Demonstration

A demonstration is a very effective method of teaching a skill, and a most convincing method in showing the value of improved practices. Especially in the early stages of extension training, it is probable that no other method carries greater conviction with cultivators.

RESULT DEMONSTRATION

When an agricultural extension worker approaches his work with villagers he finds them following many deplorable practices. Their methods of preparing the soil for seeding is very ineffective, they sow inferior seed of an inferior variety, they use no fertilizers and fail to control weeds. Yet the practices they follow are the traditional practices handed down from past ages and they know no other. They know that by following these traditional practices a certain minimum harvest is assured. The extension worker may tell them that an improved variety, fertilization and better tillage practices

will double their yields but the villager feels he cannot afford to gamble. Only when a result demonstration lets him actually see the results of recommended practices will he be convinced of their great value and be willing to try them at least on a part of his land.

The result demonstration is of particular value in India where extension training is just developing. No other method will prove more successful with villagers who until now have had little or no contact with extension training.

A result demonstration is not a matter of discovering new truths but of proving research findings of experiment stations and of establishing confidence on the part of both extension teacher and farmer.

Types of result demonstrations.

1. New varieties of crops.
2. Value of fertilizer.
3. Weed and insect control.
4. Orchard spraying and management.
5. Poultry practices.

Success depends upon these factors.

1. The extension worker must decide exactly what the demonstration should show.
2. He should carefully select the demonstrator write out instructions and personally supervise the start of demonstration.
3. Frequent supervision by the extension worker is necessary.
4. A meeting or tour to show the results to other farmers and to compare records should always be held.
5. The extension worker should take pictures of the result demonstration in its successive stages, prepare tables showing increased yield and quality and take specimens for use in exhibits and other meetings. He should report results in press, on radio and on bulletin boards.

Limitations

1. A result demonstration requires a large amount of extension worker's time.
2. The cost is high per practice changed.

3. Good demonstrators are hard to find.
4. Few people see the demonstration at most convincing stage.
5. The teaching value is frequently destroyed by unfavourable weather.

Effectiveness

6 per cent of approved practices adopted was attributed to the influence of result demonstrations. In India the percentage would undoubtedly be very much higher, as this method is especially suited to the early stages of extension work in a community.

GROUP CONTACTS

Method Demonstration

A method demonstration is to teach a *skill.* The purpose of a result demonstration is to prove to cultivators that extension recommended practices will increase yields and quality and profits. The method demonstration does not try to prove the value of scientific methods. It teaches how to do certain work. It is always interesting to cultivators and

especially when the demonstration is conducted by the extension worker, it increases their respect for the worker. They see that an extension worker does not merely talk about things. He is able to do actual work.

In U.S. in 1952, 780,000 meetings were held. 16,600,000 persons attended. Average attendance per meeting was 21.

Examples of method demonstration subjects:

Seed treatment for paddy.
Pruning.
Spraying.
Handling an improved plough.
Treating seed grain.

The extension worker must plan the demonstration in every detail. He should:

1. Outline operations in logical steps.
2. Identify key points.
3. Carefully select materials and tools.
4. Arrange for diagrams or other teaching aids.
5. Rehearse demonstration until perfect.
6 Make sure all the audience can see and hear him.

In giving demonstration he should:

1. Explain purpose and show application to local problem.
2. Show each operation slowly, step by step.
3. Emphasize key points.
4. Invite questions on every step.
5. Invite members of audience to repeat demonstration.

Advantages of method demonstration

1. It teaches needed skill to many people at one time.
2. Seeing, hearing, discussing and participating stimulate action.
3. It builds confidence in extension worker if demonstration is skilfully performed.
4. Local leaders easily learn simple demonstrations and can repeat them with other groups.
5. Promotes personal acquaintance between the demonstrators and the cultivators.

6. Influences changes in practice with many people at a single meeting.

Limitations

1. It is frequently difficult to insure that all members of the group can see clearly.

2. With certain demonstrations considerable equipment must be transported to the meeting places.

3. Requires a certain amount of showmanship not possessed by all extension workers.

Effectiveness

8·3 per cent of approved practices adopted was attributed to the influence of Method demonstrations. This method should prove very effective in India.

GENERAL MEETINGS

Sometimes called school-institute-forum-conference, discussion group-project meeting-club meeting.

Where: May be held in a home—on a farm, in a field in any building.

Method: May be lecture, informal discussion or showing films or movies.

Purpose: It enables a large number of people to acquire subject matter information.

Sharing knowledge and experience with others is stimulating. General meetings are of great help in the development of local leaders. It gives excellent opportunity for the discussion of agricultural policies or public problems.

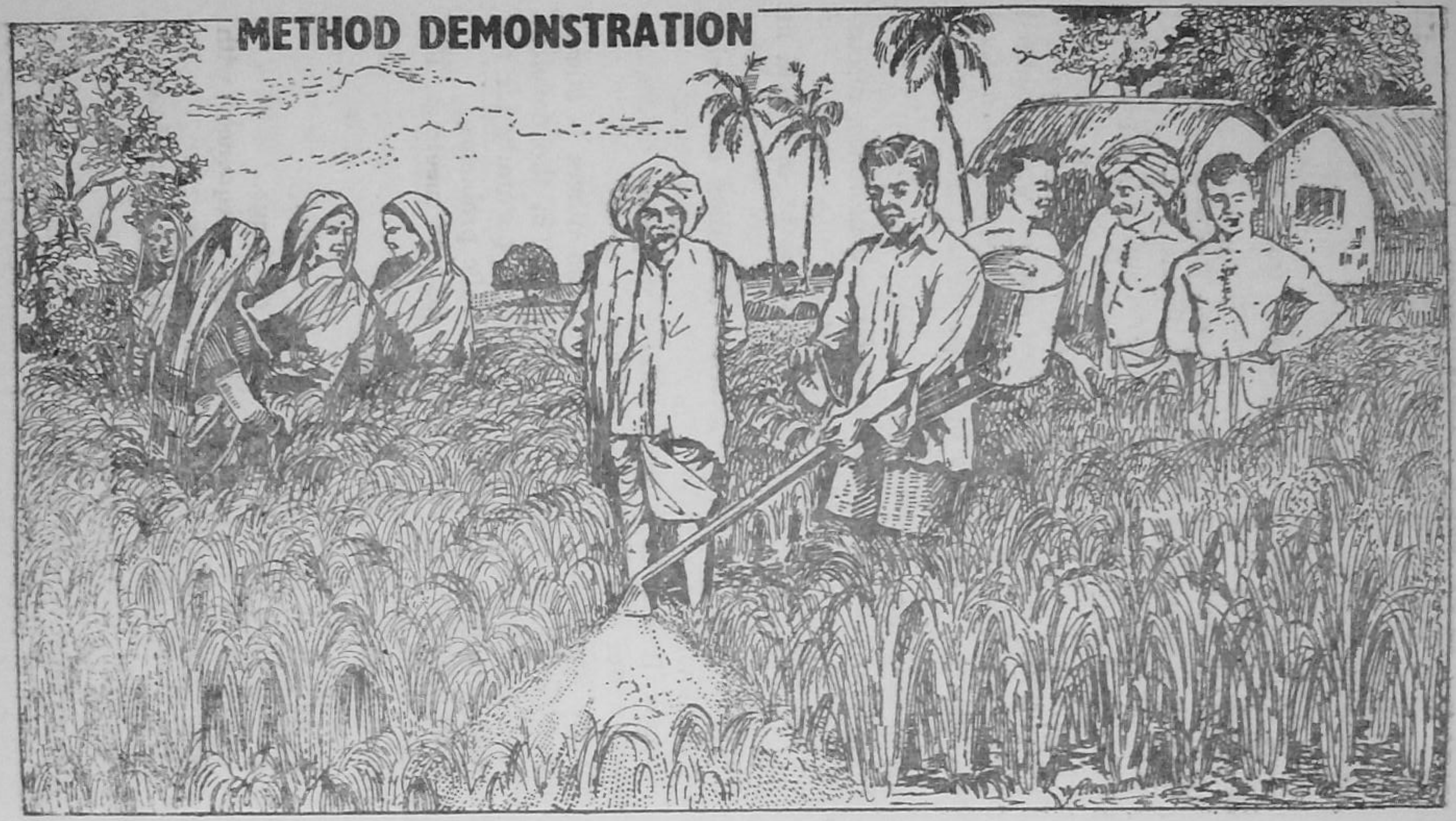
In U.S. in 1952 the average agent held 74 meetings. The average attendance was 60 persons.

Essentials of a successful meeting:

1. A subject of interest to audience.
2. The meeting should start with a challenge.
3. Ideas should be presented in logical sequence, with ample opportunity for questions and answers.
4. Wherever possible discussion should be supplemented by visual aids.

After exhaustive general discussion a summary should be presented and conclusions drawn.

METHOD DEMONSTRATION



A General meeting may take the form of:

1. A lecture and discussion.
2. A symposium—this is a short series of talks by 2 to 5 speakers, each with different subject matter or viewpoint, to be followed by question from audience directed to any of the speakers.
3. A panel discussion.
4. A programme planning meeting.
5. A field or farm meeting.
6. A tour.
7. An achievement day.

Advantages

A general meeting reaches a large number of people. It is economical of agent's time. It is adopted to any line of subject matter. People like to get together. It stimulates conviction to act. It has great news possibilities.

Limitations

A wide difference in education and interests of audience may create a difficult teaching situation.
The only available meeting place is often inadequate.

Effectiveness

Ranks third in importance. 15·2 per cent of approved practices adopted was attributed to the influence of general meetings. In India this method is of very great importance.

MASS MEDIA METHODS

A. *Bulletins, pamphlets, leaflets*: In U.S., they are written by State or Federal information Specialists. They are distributed by extension workers at farm calls, office calls, extension meetings, by mail. In 1952 about 50 million were distributed. Average county agent distributed 2500 a year.
To be effective:

1. A bulletin must be plainly written in short sentences and simple words.
2. It should cover one subject only.
3. It is most effective with attractive covers, illustrations and large, easily readable type.
4. It must be written in regional language.

Advantages

1. People usually have confidence in printed page.
2. It can be read and studied at leisure and kept for future reference.
3. The information given is definite, well organized and readily adaptable.
4. It reaches many people at low cost.

Limitations

1. Not suited for teaching illiterates or people with limited education.
2. Frequent revision is necessary to keep up with research.
3. Information prepared for general distribution may not fit local conditions.
4. A bulletin or leaflet is impersonal. It lacks the social value of meetings and personal contacts.

Effectiveness

7·5 per cent of approved practices adopted was attributed to the influence of this method. With the present rate of illiterates, the value of printed materials in India is much lower than in literate countries.

B. *News stories*: In U.S. 85 per cent of the adult population read 1 or more news papers and 65 per cent read 1 or more magazines. 80 per cent of rural families take either a daily or a weekly newspaper and 70 per cent subscribe to 1 or more magazines.

In 1952 extension workers published 900,000 news stories. News stories are not of great value at present in India but in years ahead will become valuable as illiteracy is conquered.

Extension news stories may cover any subject of interest to rural people such as:

1. Results of a field demonstration.
2. A review of the findings of scientific research.
3. The story of the accomplishments of local farmers.
4. The story of local Youth Club activities.
5. Directions for control methods for epidemic insect invasions.

Advantages

1. News stories give information to large number of people, many of whom might not otherwise seek information from extension worker.

2. People believe what they see in print.
3. A paper entering home each day or week makes information timely.
4. News stories are the least expensive method of influencing people to adopt approved practices.

Limitations

1. Of no value where people cannot read.
2. Writing a good news story requires special training.

Effectiveness

11·8 per cent of approved practices adopted was attributed to the influence of news stories.

C. *Circular letters*: The average agent in U.S.—77 per year.

Advantages

1. They reach large numbers of people including those who do not participate in extension activities.
2. They reach people quickly with timely suggestions.
3. They are adapted to a wide range of subject-matter.
4. They influence change of practices at low cost.

Limitations

1. Special equipment necessary for duplicator.
2. The influence of a circulator letter is limited to people who can read intelligently.

Effectiveness

3.3 per cent of approved practices adopted was attributed to the influence of circular letters.

D. *Radio*: In U.S. 9. per cent of all farm families have a radio (98 per cent of urban families).

Use: Extension workers use radio extensively. 1952, they gave 168,000 radio programmes. Their purpose:

1. To give market information.
2. To inform the public of extension activities.
3. To advertise meetings, tours, field demonstrations.
4. To teach improved farm practices.
5. To invite public to write for bulletins on subjects in which they are interested which supply greater detail and may be kept for reference.

6. To give emergency information on weather, storms, means of combating invasions of insects or diseases.

Advantages

1. Radio programmes are especially fitted to handle emergency information.
2. Reach people who cannot read.
3. Reach people who cannot attend extension meetings.
4. Build interest in other extension activities.
5. Broadcasts by State subject-matter specialists back up teaching by local extension workers.

Limitations

Broadcasting facilities are not everywhere available.

Frequently extension programmes are given poor time for farm listeners.

Frequently extension programmes lose out in competition with entertainment.

Effectiveness

1·3 per cent of approved practices adopted was attributed to the influence of radio.

E. *Television*: Not worth discussing at present.

F. *Exhibits*: An exhibit is effective in interesting people in extension services but it is ineffective in influencing them to change to better practices. It is still a good extension tool and should be used by all extension workers.

In setting up an exhibit:

1. Decide on subject and places it can be used.
2. Make a complete diagram.
3. Assemble materials and set up exhibit.
4. Properly label all parts.
5. Have informed representative present to explain exhibit and answer questions.

Advantages

1. Many people see exhibit.
2. An exhibit promotes understanding and goodwill toward extension.

Limitations

1. Exhibits are relatively expensive in terms of extension workers time and costs.

2. Few people are influenced to adopt better practices.
3. The vast majority of those in attendance are seeking recreation.

Effectiveness

0·8 per cent.

G. *Teaching by Local Leader* : In 1952, in U.S., 1,200,000 unpaid local leaders took active part in some kind of extension work, averaging 11 days work each. This equals 50,000 persons employed full time.

Following meetings in which they are trained they:

1. Repeat method demonstrations.
2. Conduct result demonstrations.
3. Give talks at meetings.
4. Make calls on neighbours.
5. Arrange and advertise meetings.
6. Assist with tours, achievement days and exhibits.
7. Promote and lead Youth Clubs.

Studies have shown that the average local leaders in the U.S., works 11 days a year in leadership activities, influences 12 people to make 25 changes in farm practices.

Local leaders may serve by request of extension worker, be elected by neighbours at a meeting, be appointed by a local committee, volunteer their services.

The important factor is that a local leader must attend a training class to fit him for his work.

This Table shows the relative effectiveness of trained viz., untrained local leaders as shown in U.S. study.

	Number of leaders	*Days per year worked*	*Farms influenced*	*Practices changed*
Training meetings attended ..	515	14·0	13·7	31·9
Training meetings not attended ..	227	6·7	9·3	12·2

Advantages

1. Local leaders are themselves better taught because of their experience in teaching others.

2. People accept a new idea best from a local person who has given it a practical test.

3. A local leader is available for frequent personal consultations.

Questions for Study and Discussion

1. The Block Officer receives a letter from an intelligent cultivator who lives many miles away and cannot conveniently come for personal counsel. He has heard that the Research Institute has developed a superior variety of cotton named F.H. 31. He wants to know in what way this new variety is favourable and where he can obtain seed.

Each member of the class will draft a personal letter in answer to the cultivator's question and give it to his instructor. The instructor will read selected letters, good and poor, to the class for kindly criticism in class discussion.

2. In a village in a newly opened Block a cultivator has been found who is willing to use 1/2 acre of paddy ground for a result demonstration of a new variety of paddy and the use of chemical fertilizer.

Divide the class into team of 4 members. Each team will then prepare a written plan, step by step, for the conduct of the demonstration.

Compare in class discussion the plans prepared by various teams.

3. Divide the class into new teams of 4 members. Each team will then prepare a method demonstration on a subject of their own choice and present it before the class for criticism.

4. Each member of the class will write a 400 word news story of the successful activities of an imaginary Youth Club. Compare them before the class.

Each member of the class will write a 5 minute radio broadcast telling of the completion of a new school house in village by the united efforts and work of villagers under the leadership of the local extension worker.

REFERENCES

Extension Teaching Methods, U.S.D.A. Circular 495.
Kelsey and Hearne: *Co-operative Extension Work* chaps. 18-29.

Chapter 14

FACTORS INFLUENCING ADOPTION OF PRACTICES

THERE are few factors other than the teaching methods used by the extension worker to bring about desirable changes on the farm that may influence the acceptance and adoption of recommended practices by cultivators. Although these factors are outside the control of the extension worker, an awareness of them may be of value in helping him select the best teaching tools for the particular situation.

A very interesting summary of a member of carefully conducted studies in the United States of the effect of certain factors on the rate and number of improved agricultural practices adopted is given in *U.S.D.A. Extension Circular* 425.

AGE IN RELATION TO ADOPTION OF PRACTICES

Age group	*Per cent of total*	*Per cent adopting a practice*	*Number of practices adopted per 100 farmers*
Farmers and agricultural practices (1,978 farmers in 5 areas)			
30 years and below ..	10	78	295
31 to 35 years ..	11	78	287
36 to 40 years ..	15	80	321
41 to 45 years ..	14	82	320
46 to 50 years ..	13	74	301
51 to 55 years ..	11	77	284
56 to 60 years ..	10	73	283
61 years and above ..	15	68	223
No age given ..	2	74	182

It is apparent that age is not a significant factor in affecting the adoption of improved farming practices. The ability of

people to learn may slowly decrease with advancing age but it is fully counter-balanced by the interest shown by older people in learning of improved practices that will help solve farm problems.

EDUCATIONAL TRAINING IN RELATION TO ADOPTION PRACTICES

Classification group	*Per cent of total*	*Per cent adopting a practice*	*Number of practices adopted per 100 farmers*
Farmers and agricultural practices (2,895 farmers in 7 areas)			
Some college	4	94	515
Some high school but no college ..	14	88	388
Grade school only ..	79	78	277

Previous education is a very significant factor in affecting the rate and number of improved agricultural practices adopted. Farmers who had had some college training adopted materially more improved practices than those who had had high school training only. In turn, farmers with some high school training adopted new practices in greater numbers than did their neighbours whose early education had ended with grade school.

Since 80 per cent or more of cultivators in India are illiterate, this study suggests to Indian extension worker the need to intensify their efforts if they are to persuade a majority of their cultivators to adopt improved practices in farming. Educated farmers know that science has much to offer them and seek the help of the extension worker. Those with no formal education must be sought out and persuaded to use improved methods that will benefit them so greatly.

This study indicates that the number of improved practices adopted increased with the size of the farm. It is probable that with his much greater investment in land, machinery and livestock, the owner of a large farm calls more frequently for the assistance of the agricultural extension worker.

It is interesting to note the summary of other carefully conducted American studies of factors that might affect the ac-

ceptance of extension teaching and the rate and number of improved practices adopted.

A. The number of improved practices adopted and used on an owner's farm or on a farm managed by a tenant were nearly equal. The fact of land occupancy by ownership or by renting did not affect the extent of use of extension information.

B. There was no measurable difference in the employment of extension taught practices between farmers living within 10 miles of an extension office or farmers living beyond that limit. Further, no difference was noted in the number of such practices employed by farmers living on improved highways or those living on unimproved roads.

C. Farm families that rated high on a socio-economic scale employed more improved practices on their farm and in their home than did families with a low rating.

D. Farmers who had had contact with extension workers employed many more improved practices than did farmers who had not had such contact.

Questions for Study and Discussion

1. In Indian extension experience are operators of large farms more receptive to extension recommendations than are operators of small farms?

2. Has a land reform act been passed in this State?

What are its provisions?

How does it affect the owner of a large well managed farm?

Does it make investment in recommended extension practices such as better varieties of seeds use of insecticides and increasing use of chemical fertilizer an attractive investment?

Do owners of large farms refuse to make such investments that would increase production fearing that their land may be taken from them at any time by the State for division among landless peasants?

What law in this State governs tenancy?

Does it make such investments attractive for a tenant?

4. In a group meeting with thirty cultivators you have told them that by using improved tillage practices, pure seed and commercial fertilizer they can increase their yield of paddy by at least fifty per cent. You have shown a film showing how this can be done. A cultivator answers that he has no doubt that fifty per cent increase in production is possible by using

the method you have recommended, but more intensive tillage, pure seed and commercial manure will cost many rupees; that if many cultivators increase their production fifty per cent there would be so much rice on the market that prices would go down and the cultivator would not get back his investment.

How would you answer this argument against using improved methods?

REFERENCE

Extension Teaching Methods, U.S.D.A. Circular 495.

Chapter 15

GENERAL MEETINGS— GROUP DISCUSSION METHOD

We have studied individually the various methods that may be employed by an extension worker in educating cultivators in improved farming methods. We have listed the advantages of each method, recognised its limitations and shown its effectiveness and measured in the American survey.

The group contact methods are widely used because they are saving an extension worker's time. In a group meeting he may influence from twenty to forty or more cultivators whereas the same time spent on individual contacts would probably influence only one person. One method of group contact—the group discussion method— is so successful that it is worthy of special study. On any subject on which the cultivators have had some experience or background the group discussion method is highly adoptable for these reasons.

1. Each member of the group has a chance to contribute his experience or thoughts on the subject. This gives him a feeling of satisfaction and importance. He feels part of the group.

2. All members learn from other members' opinions and experience.

3. The instructor learns how much the group members already know. At the same time the points that the group do not know are brought to light and become the points of teaching for instructor.

SUCCESS FACTORS IN LEADING A GROUP DISCUSSION

A. *The Leader must be Prepared*

1. He must know everything possible about the subject to be discussed.

2. He must have a clear conception of what he wants to teach.

3. He must have a clear conception of how he will lead the discussion to develop and teach the lesson. How he will "Lead the Group to Decide".

B. *Getting Ready*

1. Arrange the group in a circle so each person can see everyone.

2. Provide table, space, blackboard, chalk and eraser.

3. Make everyone comfortable.

4. Learn the name of each person. Self-introduction is a good plan.

5. Announce that everyone will remain seated, including the leader, during the discussion.

6. Emphasize that everyone is to take part in the discussion. The leader must not dominate the discussion himself.

7. Have ready all possible aids on the discussion such as charts, tables or lantern slides.

8. Start on time. Close on time.

Start with a leading question that will invite discussion. Suppose you have called the meeting to discuss increasing rice production by the use of the Japanese method. You might start by asking: How do the Japanese grow so much more rice per acre than we do? (All India average yield of paddy per acre is 1,200 pounds. Japan 3,400 pounds).

Or

Our production of rice does not meet our needs. How can we grow more per acre?

Or

Is there any way by which we can make a larger profit from our paddy land?

If a member of the group has had experience in using the Japanese method, use his experience.

Shri. R. Shetty (Farmer in district).
Old method 1300 pounds per acre.
Japanese method 2200 pounds per acre.

Have groups figured out probable costs of each method and probable profits, using their own experience or show cost figure kept by R. Shetty?

The leader should now guide the discussion on:

1. Best variety for this community.
2. Growing seedlings.
   Making a raised seed bed.
   Selecting good seed.
   Planting seed.
   Caring for seedlings.
3. Growing the crop.
   Preparing seed bed.
   Fertilizing.
   Transplanting seedlings.
   Caring for crop.
   Insect and disease control.

For the Leader:

Are you ready for the meeting?

1. Have you reviewed every detail of the subject? Can you supply experimental data on all points?
2. Do you have a clear mental picture of how you want the meeting conducted—opening questions, illustrations, visual aids, exhibitions to be used?
3. Address questions to the group, not to any particular member.
4. Let every one have opportunity to present his experience or suggestions.
5. Do not cut a speaker short because you may disagree with his suggestion or viewpoint.
6. Interrupt speech-maker tactfully.
7. Do not let discussion get off the track. You are leading a meeting on a definite subject. Keep it there.
8. If some detail is neglected, bring it up with a question, i.e. we have not discussed the amount of seed needed per acre. How much do you think is needed?
9. Start class in time—close in time. An hour and a quarter is long enough for any class.
10. Cover every angle of subject to the point of complete understanding. Take two or more nights if needed.

Questions for Study and Discussion

1. You are meeting for the first time with the group. You try to start discussion by throwing out a lead question. The group is timid. No one makes a comment. What would you do?
2. How would you shut off a group member who wants to make a long speech?
3. How would you answer an opinionated member who tells you flatly that what you have told of commercial fertilizer increasing crop yield is untrue; that commercial manure poisons the soil so that the next year nothing will grow?
4. How would you answer a member who advances a traditional belief or superstition that contradicts a proved scientific method?
5. How would you stop a member who tries to bring a political discussion into the meeting?

REFERENCES

Kelsey and Hearne: *Co-operative Extension Work*, chap. 27.
Extension Teaching Methods, U.S.D.A. Circular 495.

Chapter 16

VISUAL AND AUDIO-VISUAL AIDS

Extension workers are teachers. They are eager to teach cultivator the new, scientifically proved methods by which farming can be made easier and more profitable. To teach there must be a means of communication between the teacher and the people he would teach.

Too often the extension worker depends upon the spoken word as the only means of communication with village people. This is a bad mistake. His teaching can be made much more understandable and effective if he will communicate his ideas through the eye of the cultivator as well as through the ear. The old saying "One picture is worth ten thousand words" may be an exaggeration but it contains a lot of truth. We learn by seeing even more than we learn by hearing. We learn best when we both see and hear. A researcher in this field summarized his findings in these words; When visual aids are used with a lecture, about 20 per cent of the information is understood and acted upon by the hearers. When the lecturer used words alone, only 5 per cent of the information he developed was understood and acted upon. Visual aids increase up to 3 times the effectiveness of a lecture.

Fortunately there is available a great variety of devices that make possible teaching through both hearing and seeing. These are called visual aids or audio-visual aids as the case may be.

A visual aid is a teaching device that can be seen but not heard.

An audio-visual aid is a teaching device that can be heard as well as seen.

A good teacher makes use of visual aids and audio-visual aids on every possible occasion. Such aids:

Capture and hold the interest of an audience.
Clarify the lesson taught and vitalize instruction.
Bring experiences in activities outside the person's environment. They broaden his world.
Build and sustain interest.
Make clear instructions that cannot be made clear with words only.

VISUAL AND AUDIO-VISUAL AIDS

An extension worker has at his command a great number of devices that will serve as visual aids and make his instruction clearer, more understandable and more interesting to his learners. Many of them are very inexpensive and can be made from simple materials.

BLACKBOARD

This is an indispensable aid. It can be made from a piece of plywood and should be about 30 by 40 inches painted with blackboard paint, hinged in the middle for easy transportation.

The teacher can focus audience's attention by placing on the board the topic of discussion, then the solutions as they are developed. He can make illustrative drawings, develop charts and graphs and figure cost problems with his learners.

By following certain simple rules the use of a blackboard can be made most effective.

1. Keep a damp cloth at hand so that blackboard can always be kept clean.
2. Write in large letters.
3. Do not talk as you write.
4. Face group after writing and continue the discussion.
5. Do not use abbreviations.
6. Use coloured chalk. Yellow is preferable for night meetings.
7. Stand beside the blackboard, not in front of it.

Many uses can be made of a blackboard. It can be covered with a piece of flannel to serve as a flannelgraph or with a clear white cloth to use as a screen in showing strip film.

PHOTOGRAPHS

Photographs, particularly local photographs, are keenly interesting to villagers. Arranged in the right order on a bulletin board they can show in detail the steps in a new method, the results of a demonstration, successful Youth Club projects. Villagers are keenly interested in pictures of the successful conclusion of a village improvement project such as a new road or a new school house built by their own efforts. They love photographs of local festivals or dramas. They love to see themselves and their neighbours in a photograph. One of the first pieces of equipment an extension worker should buy is a good camera.

Good photographs should show action—show people as they really are. Do not use photographs that are out of focus, not clear, or too small.

All that has been said of photographs is equally true of pictures from any source. Pictures and photographs are especially valuable in teaching illiterates.

Good photographs can be used very successfully both as an instructional device and as an interest-builder.

POSTERS

A good poster, usually 20 by 30 inches or larger can strongly reinforce a campaign for a given improvement. It should be planned to promote a single idea such as "Use chemical fertilizer on paddy". It should use only a few simple words and as nearly as possible tell its story in pictures. Bright colours add to its attraction. It should be prominently displayed in a place where people will see it every day.

Merely displaying a poster will not in itself bring action for a desired improvement but it has high value in adding emphasis to a campaign being conducted by an extension worker for a given improvement.

Many excellent printed posters for various desired improvement can be obtained by the Block staff from the State Agricultural Information Officer. In addition an imaginative extension worker can make his own posters to meet local needs, using local photographs in place of drawings.

FLASH CARDS

Flash cards are a series of drawings or pictures or cartoons on cards about 18 by 22 inches that, shown in sequence, tell the story of a single improvement under discussion. Usually the story is completed on 10 to 12 cards.

The extension worker stands before his listeners and introduces the subject with only the first card showing. When he has explained the story shown on the first card he flashes it behind the others and the second card is on view. As he talks he invites questions of comments from his listeners as each card is displayed. Great care should be taken that everyone can clearly see each card. Flash cards are not adaptable to audiences of more than 30 people.

When properly used flash cards hold audience's attention and are very effective in introducing a new idea and developing group discussion. They are most effective when printed in two or more colours.

To use flash cards effectively an extension worker must:

1. Be thoroughly familiar with each card and the key point it is emphasizing.

2. Hold the cards against the body and slowly rotate to right and left as he talks so that all of his audiences get a square view of each card.
3. Use simple village language.
4. When the explanation of the key point illustrated by each card has been completed, invite questions and discussion from the audience. When villagers ask questions and offer comments, it provokes a keen interest—the first step to action.
5. Be enthusiastic. Develop showmanship in telling the story developed in sequence on the cards

FLANNELGRAPHS

A flannelgraph is a very popular and a very effective method of visualizing to a group the story or lesson told by an extension worker.

A flannelgraph is easily made. Cover a blackboard or a sheet of heavy cardboard with a tightly drawn piece of flannel. Some workers have used khadi, but flannel is a bit easier to use. When pictures, cutouts, photographs, drawings, charts or letters have flannel or strips of sandpaper pasted on the black, they will stick, when pressed firmly to the flannel covered board. They can be removed quite as easily and quickly as they were put up, for most groups a board 3′ by 4′ is large enough. Objects on such a board can be clearly seen at 25 feet. The board should be placed high enough so all in the audience can see it clearly. It may rest on an easel, be braced on a table top or may be secured to a wall.

A flannelgraph makes possible a "build up" story. The extension worker collects or prepares in advance a series of drawings, pictures, or cartoons that shown in sequence tell a complete story. They should be big, bold pictures. He presses number one on the flannelgraph and tells the story it pictures, then the next picture and the next until the story is completed. It is a dramatic way of presentation. The audience is kept wondering how the story will end and their close attention is insured.

A flannelgraph presentation can be a very effective tool in teaching.

FILM STRIPS AND SLIDES

A film strip is merely a series of still pictures in a roll, usually with the individual pictures arranged in sequence to tell a story or to explain the steps in an improved practice. There may be only 20 pictures on a roll or in some cases 50 or 60 pictures may be needed to fully tell the story. A simple projector is necessary to show such pictures. Slides are individual pictures usually in colour that also require a projector.

Film strips and slides are very effective extension tools. People like pictures. They learn quickly through pictures. Pictures broaden their understanding and favourably affect their attitudes toward scientific methods. Through the pictures on a film strip an entire new process can be explained. Then, too, at no great expense an extension worker can take 35 mm. local pictures and have them made into a film strip or into slides. Such local pictures showing success with scientific methods are of great value in persuading other villagers to adopt the same methods.

An extension worker should always preview a film strip and be thoroughly acquainted with its story before showing it to an audience. During the showing and again at its conclusion questions and general discussion should always be invited. No group meeting can be termed a success unless there has been active audience participating in the form of questions, comments and discussion.

FILMS

People like to see films. They will come a long distance to attend a meeting where they will see a film. Many people who cannot be interested in attending another kind of meeting will come eagerly when it is advertised that a film will be shown.

A film builds interest and holds the eager attention of people. It teaches through the eye as well as through accompanying words.

Both recommended practices and simple 'how-to-do' skills can be taught by film. For example, a film on better ploughing can show an improved plough, its parts, how it is hitched to bullocks and how it is handled in the field as well as, in subsequent scenes, the effect of better ploughing on crops.

Better than any other medium a film can show a complete process and the necessity of a series of improved practices if the best final result is to be achieved. A film on growing paddy can emphasize the need of an approved variety of seed treatment, of thorough seed bed preparation, fertilization, disease and insect control that the employment of only one or two of these improved practices will in no way insure greatest yield. All must be followed for maximum yield. This is an important lesson to literate or illiterate persons.

The extension worker should give a short talk before showing the film telling the audience the purpose of the meeting and the film. Usually no talking should be done until the picture is finished but thorough discussion and questioning should be encouraged at its end.

Films should always be used as part of a campaign for a specific improvement and be supported by posters, discussion meetings and demonstrations.

BULLETIN BOARD

The extension worker should erect a bulletin board in every village. Made of soft lumber about 3 feet by 6 feet it should be placed in a prominent place in the village where the people will see it daily. It must be protected from the weather. On it can be posted:

Announcement of coming meetings or events.
Photographs showing local activities.
Photographs showing successful projects in near-by villages.
Reminders of jobs not yet started.
Instructions and progress reports for jobs underway.
Pictures from magazines that have village interest.
Posters.

Displays on the bulletin board should be changed regularly and announcements kept up to date. People will learn to go out of their way to see the new materials.

Through a bulletin board an extension worker can keep in constant touch with the villagers. A bulletin board can take the place of a local newspaper.

FOLK SONGS, FOLK DANCES, PUPPET SHOWS AND DRAMA

Villagers are universally fond of singing, of folk-dancing and dramas. In most villages there are few opportunities for entertainment. People will attend local talent-entertainment with great interest.

The extension worker should capitalize on this interest. He can usually find a local person who can write a song that can entertain and at the same time teach a lesson on some needed improvement. A drama can be written locally that also has a lesson, or in some cases copies of suitable one act-plays can be secured and employed. At the beginning of an evening song or drama and again at its end the extension worker may give a very short talk on the needed improvement shown in the singing or drama.

All that has been said of folk songs, folk dances and drama is equally true of a puppet show. The extension worker can find local people with talent for such acting and can train them with very inexpensive equipment to put on a show that is both entertaining and instructive.

In organizing an evening song, folk-dancing, a puppet show or drama, an extension worker not only creates an opportunity for a short, useful lesson on an improvement but builds good public relations with the people of the village. They know he was the one who organized the entertainment they so greatly enjoyed and feel a growing friendship for him.

TOURS

A well organized tour can be one of the most effective teaching aids for an extension worker. The lesson of the value of a new variety, a new practice, or a new implement can best be taught when people can see the improvement. When people from one village actually see the improvements already realized in neighbour villages they are inspired to return home and start action in their own village for the same improvement. A well organized tour or field trip makes these things possible. It provides the learner with first hand information in rural life situation.

The extension worker with the help of such local leaders as he may invite to assist is responsible for all arrangements for a tour. He must have clearly in mind the purpose of the

tour and the lessons he wants to emphasize. He must set the time of the tour when those lessons can best be taught and shown. He must work out a time-table showing when the tour is to start, where to go first and succeeding stops throughout the day. Transportation must be arranged, tools and equipment provided if needed, provision made for drinking water and refreshments. He must have advance agreement with villagers or cultivators to be visited and have them prepared to give short explanation of projects to be seen. At the end of the tour or at a meeting called later, there should be a general discussion and question period on what was seen and the lessons that should have been learned. Pictures taken on the field trip by the extension worker will help greatly in later meetings to recall the lessons learned on the trip.

MODELS, SPECIMENS AND EXHIBITS

If it is impossible for an extension worker to take cultivators to see the object of a lesson the next best procedure is to bring specimens or models to a meeting. When discussing a new variety of crop, in a meeting, he should have specimens of the crop for the cultivators to see and handle. This means of course that the extension worker must foresee this need and collect and preserve representative specimens of both plant and seed during the growing and harvest seasons. Models of implements, houses, compost pits and sanitation devices can usually be obtained from staff headquarters for use in a meeting. The best place to study any subject is in the field, but when that is impossible, specimens and models add greatly to the interest in a meeting and to the effectiveness of teaching.

An exhibit set up at a *mela* or fair gives opportunity to present a new idea to a larger number of people. An exhibit should present only one idea. It should be simple, attractive and large enough to be seen and understood by people as they slowly walk by. An exhibit should tell a simple story. Only a few items should be used in its display. Most exhibits are much more successful if an extension worker is constantly stationed at the exhibit to explain, answer questions and emphasize its lesson.

Study people as they pass the exhibit. If they pause a moment for study the exhibit is successful. If they merely glance

at it as they pass, it will not convey to them the message you intended.

No college student needs to be convinced of the value of visual aids in the learning process. He remembers clearly the professor, learned in his field, who merely lectured to his class and put them to sleep. He remembers also the professor who illustrated all of his lectures with models and specimens, with posters, charts, drawings, and graphs, and with occasional films that lent themselves to his subject, who held the keen interest of his class and left with them a real understanding of the subject studied.

There is need, however, of practice with all future extension workers in making and using the visual aids so necessary in their future work. In the classes in practicals the instructor will teach his students how to select and preserve the specimens for which they will have such vital need when they, in turn, are teaching extension recommendations to cultivators.

Questions for Study and Discussion

1. Divide the class into teams of four. The class instructor will choose a subject such as "Crops Must Be Fed".

Team No. 1. will prepare an original poster illustrating this lesson.

Team No. 2 will work out a series of 10 to 12 flash cards that teach this lesson.

Team No. 3 will compose a flannelgraph to teach the same lesson.

Team No. 4 will write a puppet show on the subject.

Team No. 5 will write a short drama to present the lesson.

Team No. 6 will design an exhibit that would teach the lesson.

If there are more than six teams the same assignment may be given to two or more teams but each team will work independently.

When all teams have completed their preparation each team will present its work before the whole class for comments and kindly criticism.

2. As various crops approach harvest season, each student will select in the field a typical specimen of the plant and of its seed and under his instructor's direction will dry the specimens and mount them on cardboard. Similarly, at the season when they can best be found, he will collect and preserve specimens of plant diseases.

3. To acquire skill in map-making each student will make a map of the college farm that shows in colours the acreage of fields in different crops.

4. For experience in making a graph, such student will construct a pie or circular graph showing the acreage devoted to the various crops on the college farm.

5. From figures given in chapter 1 on the increase in population in India since 1891 construct a bar graph showing the acceleration in rate of growth of total population.

6. Divide the class into teams of 6 members and have each team set up an exhibit that teaches a lesson on a subject chosen by the team.

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Chapter 17

AGRICULTURAL PROGRAMME PLANNING

It is impossible for workers in any field of human endeavour to do effective work without a plan for the work. The builder of a cotton mill must have a carefully prepared blueprint or plan that shows the exact size of the building and its various rooms, how the foundation is to be laid, the walls constructed, the roof supported and the cement mixtures to be followed in all parts of the building. When a mountain-road is to be built engineers must make detailed surveys to establish the exact route and grades to be followed and not a shovelful of dirt can be moved until the plan is completed. The Central Government could not start the implementation of a single project in the Five-Year Plan until its leaders after exhaustive study had decided exactly what projects should be attempted, the scope of the various projects and the financial allocation that could be given to each. All of these considerations and decisions were put in writing so that the plan could be followed through exactly. By putting the plan in writing and publishing it widely it became not only a directive for workers in its execution but invited the study of every intelligent citizen. This made every citizen feel that it became his plan, that he would be vitally affected by its success and that his personal support was needed.

THE BASIC PRINCIPLES OF EXTENSION PROGRAMME PLANNING

Extension programme planning must always be a co-operative venture between trained extension workers and the villagers whom they seek to aid. This is a fundamental principle of extension education.

The philosophy of extension programme planning is well expressed in these quotations.

"The fundamental purpose of any educational enterprise is to teach persons how to think and not what to think. It is the function of the extension service to teach people to determine accurately their own needs and the solution of their own problems, to help them acquire knowledge and to inspire them to action; but it must be their own action out of their own knowledge and convictions." (M. C. Burritt, Farmer Extension Director, New York, U.S.A.)

"The naive assumption that any group of persons will fall in with any plan about which they have not been consulted and which has not taken the social situation into account has been proven false so often in history that its survival is one of the world's mysteries." (Kolb and Bruener : *A Study of Rural Society*)

"If the programme is to become a sustained, living village self help programme, it is essential that the leadership for planning and implementing programmes in the villages come from the present and yet to be developed leaders of the villages. Likewise much of the responsibility for continuous planning and development must come from village-credited and village-led organizations, including among others such groups as Panchayats, Co-operatives, Youth Clubs, Women's organizations, Farmers' Associations, Recreation Clubs, Village Development Councils etc." (*A Guide to Community Development*—Esminger).

WHY IS EXTENSION PROGRAMME PLANNING IMPORTANT ?

Extension programme planning must always be a co-operative venture between trained extension workers and the villagers whom they seek to aid.

When carefully and mutually prepared it gives, to the extension worker a written plan for action detailing the present situation in the village, the problem or problems of most immediate importance and the method of solution to be followed. It helps to establish priorities and time sequences

among the various activities specified in the plan. It keeps his attention focussed on a predetermined action programme and prevents confused and ineffectual wandering into other fields towards objectives of lesser importance. It sets objectives towards which progress can be measured.

To the villager it gives the feeling of being an important part of the plan. He has been consulted in the formulation of the programme. He has offered suggestions that were carefully considered and included. It becomes not simply a Government programme but the village programme in which he has a responsible part.

To the Block Extension Organization it gives a programme to be followed that can be carried through continuously even though there be varied changes in personnel. New men have the blueprint to carry on where departing fellows have left off.

CONSIDERATIONS IN PROGRAMME PLANNING

Extension workers must never lose sight of the fact that extension is a "self help" programme. It is not a plan for village improvement imposed on a village by high authorities. It is a plan to lead villagers to recognise the reasons for their extreme poverty and pitiably low scale of living and offer technical assistance in finding solutions that villagers themselves may carry out.

Extension workers must recognise that development in each village must begin with those problems that the villagers at that moment recognise as important to their well-being and toward the solution of which they are willing to work. Such problems must become the start of the programme even though in the judgement of the extension worker some other problem is more important.

STEPS IN PROGRAMME PLANNING

1. *Meeting the people.* The Block staff—Gramsevaks, technical specialists and the Block Development Officer, working in pairs should make repeated visits to every village to learn the problems of the village by talking with the villagers and by making personal observations. They should identify local leaders, meet the members of the village

panchayat, call on representative cultivators. They should learn with what conditions the villagers are most discouraged, what problems the villagers consider the most important. While all villages will have many common problems, each village will have special problems of its own. One village may have ample water for its paddy land, another be suffering an acute shortage. One village may have satisfactory roads to market, another may have nearly impossible roads.

On these visits the crop specialist will make notes on the condition of crops, the animal husbandry specialist on the numbers of livestock, evidence of disease and lack of sufficient grazing. The people of each village must be studied. Is the village of one caste or multi-caste? Who are the cultivators, the landless labourers, the artisans, the Harijans? What religious significance does the village place on livestock? In what superstitions do they firmly believe? All people of all occupations, castes or economic status should be included in a programme for village uplift.

2. *Identifying village problems.* Each extension worker should make a written list of the problems he has had reported in personal interviews with villagers of all occupations, castes or ranks. He should make note of the problems the villagers consider most important. He will add other problems from his observation. For those problems with which he feels competent to deal, he will list the causes for the problem, then suggestions for solution. For those beyond his training he will await solution suggestions from specialists in that field. Among the problems which result in poverty and low living standards in the village he will usually find the following, each desperately in need of solution:

A. Very low crop yields.
B. Too many cattle of very poor breeding, scantily fed.
C. Fragmented land holdings too small, widely separated and irregular for efficient tillage.
D. Poor health.
E. Poor housing, dirty village conditions, lack of sanitation.
F. Poor roads.
G. Poor schools or none at all.
H. No recreational facilities.

These and many other problems will surely be uncovered and identified as major causes of the deplorably low living standard of villagers. They are largely problems that will respond to the self-help approach.

3. *Listing causes and solutions.* Each problem has a cause. Most problems have a solution. The extension worker should carefully list the causes of each problem, and his suggestions for its solution. For example:

Causes of low crop yields

1. Low yielding varieties are grown. Cultivators have no knowledge of higher yielding varieties developed by Research Institutes or are unable to obtain good seed.
2. Only traditional farming methods are followed with the use of primitive tools.
3. No knowledge of the value of compost manure, green manure or chemical fertilizer.
4. No knowledge of plant protection from diseases and insects.
5. Lack of credit at reasonable interest.
6. Lack of knowledge of improved methods developed by Research Institutes, and inbred resistance to any methods other than traditional ones in use for centuries.

Solutions to the problem of low crop yields should then be carefully prepared.

Set up under village conditions carefully planned result demonstrations directed by the Gramsevak that will prove to the villagers the value of:

Improved varieties and pure seed.
Compost manure.
Green manure.
Chemical fertilizer.
Improved tillage practices.

4. *Hold staff conferences.* Staff conferences should be called by the Block Development Officer to consider the problems of each village, their causes and suggested solutions with special emphasis on those problems suggested by villagers. Specialists in the various fields will add their

recommendations. Special problems of individual villages will be considered. Then a plan for each village will be finalized showing :

Objective of the plan.
Problems to be attacked.
Their solution.

Then will be added a plan for action:

What
Why
When
Where
By whom
} The programme is to be carried out.

This part of the plan will list the extension methods to be used — personal visits, group meetings, visual aids and field-trips. It will include a calendar of visits and meetings. It will list local leaders that will assist in carrying through the plan. It has further value in serving as a reminder to the extension worker to have certain supplies and teaching aids ready at given times.

Extension is a continuous process over many years. Not all village problems should be tackled at the same time. It is highly advisable that the extension work at first concen- trate his efforts on a very few problems that have a high probability of success. Success with first problems will stimu- late confidence on the part of villagers and increase their enthusiasm for active participation in later programmes for village improvement.

Carefully prepared plans to solve a given problem, formu- lated in consultation with villagers and mutually agreed upon, go far to make them feel that the programme is a village programme, that each individual is vitally concerned and must give his best efforts in support.

It is to be regretted that too little effective planning is yet to be found at village, circle or block level. There is instead a very strong tendency for ready-made objectives and goals to be handed down by higher authorities with the expectation that they will be implemented and attained by field staffs. This is quite the opposite of true extension philosophy that believes firmly that improvement program-

mes can succeed only when the villagers who will be helped by the programme have had a major part in its planning, have adopted it as their own and because it is their own programme carry it through.

The strong tendency for higher authority to hand down objectives and goals to field staffs is usually true in a young extension service. The needs of India are great, Central planners set up economic objectives and targets that they feel must be attained in the next year or in the current Five-Year Plan. They regard extension as a major tool in the attainment of their plans. These targets are handed down through state, circle and block levels and the Block Development Officer, with his assistants, direct the Gramsevaks to work toward the attainment of these targets rather than to help develop programmes that truly reflect the felt needs of the villagers. This procedure is quite in keeping with the heritage of strong Central administration left by the British where all policies and programmes were determined by the highest authority and the execution charged to local agencies. Further, since the Central Government is offering large sums of money to subsidize rural improvement there is a feeling that poverty-stricken villages should gladly fall in line with any programme that is suggested for their improvement. This viewpoint is wholly wrong. Villagers as individuals and as members of traditional community organizations frequently have very different views as to what the village wants and needs and they hold an instinctive distrust of a new outside organization that attempts to dictate their wants.

National targets cannot be achieved through compulsion. They can be attained through education only. Extension workers should fully explain to rural people how and why these physical targets were set up and what their accomplishment will mean to village people. They should try to enlist the support of villagers in the attainment of worthy national targets but they should never forget that the development of an increasing capacity of rural people to recognise their own problems and to make wise decisions based on adequate knowledge is the basic goal of extension. The co-operative process of programme planning needs to be emphasized in all inservice training of extension workers.

Summary

Living standards in Indian villages are deplorably low. Poverty is universal. Land is in scarce supply, farming methods are obsolete, farming tools are primitive, acre yields of crops are very low. Health conditions are poor, housing inadequate, dirt and cluttered living self-evident. Eighty per cent of adults are illiterate, schooling for children neglected. Unemployment is very serious. Perhaps most serious of all is the apathy of the people, the assumption that conditions have always been like this, hence they always will be.

To rebuild Indian villages, to upgrade all phases of rural life, to bring to the people a feeling of self respect, to kindle their ambition for continuing self-improvement is the challenge of the bold, new Community Development Plan. Into Blocks of 60 to 100 villages teams of trained extension workers are being sent to lead rural people in a great self-help programme that will bring improvement in all phases of rural living.

To accomplish such improvements an extension team must work from a plan. Repeated visits to every village with personal contacts with local leaders in all ranks of village occupations and society will emphasize the problems in most immediate need of solution. A written statement for each village specifying the problems to be attacked, the basic causes of these problems and the methods for their solution, together with a calendar that specifies when each step in the solution is to be taken and by whom, constitutes a Programme Plan. It serves as a blueprint for extension workers and keeps their efforts directed toward the mutually determined objectives. Since local leaders and representative individuals have been consulted in building the plan and it has been discussed and agreed upon in Group Meetings with the people, it gives them a feeling of being part of the plan and a strong sense of responsibility in its development.

Questions for Study and Discussion

1. Divide the class into teams of six students. Have each team spend a full day in a different village. Working in pairs talk with panchayat members, leaders in different fields, individual ryots, members of different castes. Ask each what he

believes are the problems of immediate importance in the village. List these problems. Add other village needs from your own observations.

In the next class meeting have the captain of each team report on the village visit and list on the board the problems suggested by villagers as the most important. From each list have each team select the one problem that in their judgement should be first attacked.

Have each team working together draft a plan for meeting this problem. List carefully:

The problem.
Causes of the problem.
Solution measures.
How the plan for solution will be put in action.
Extension methods to be used.
When.
By whom local leaders to be used.
A time table for action-calendar of visits and meetings.
A list of equipment, supplies and visual aids that will be needed in the campaign.

After the various teams have drafted their plan, have each team present their plan before the whole class for analysis, discussion and criticism.

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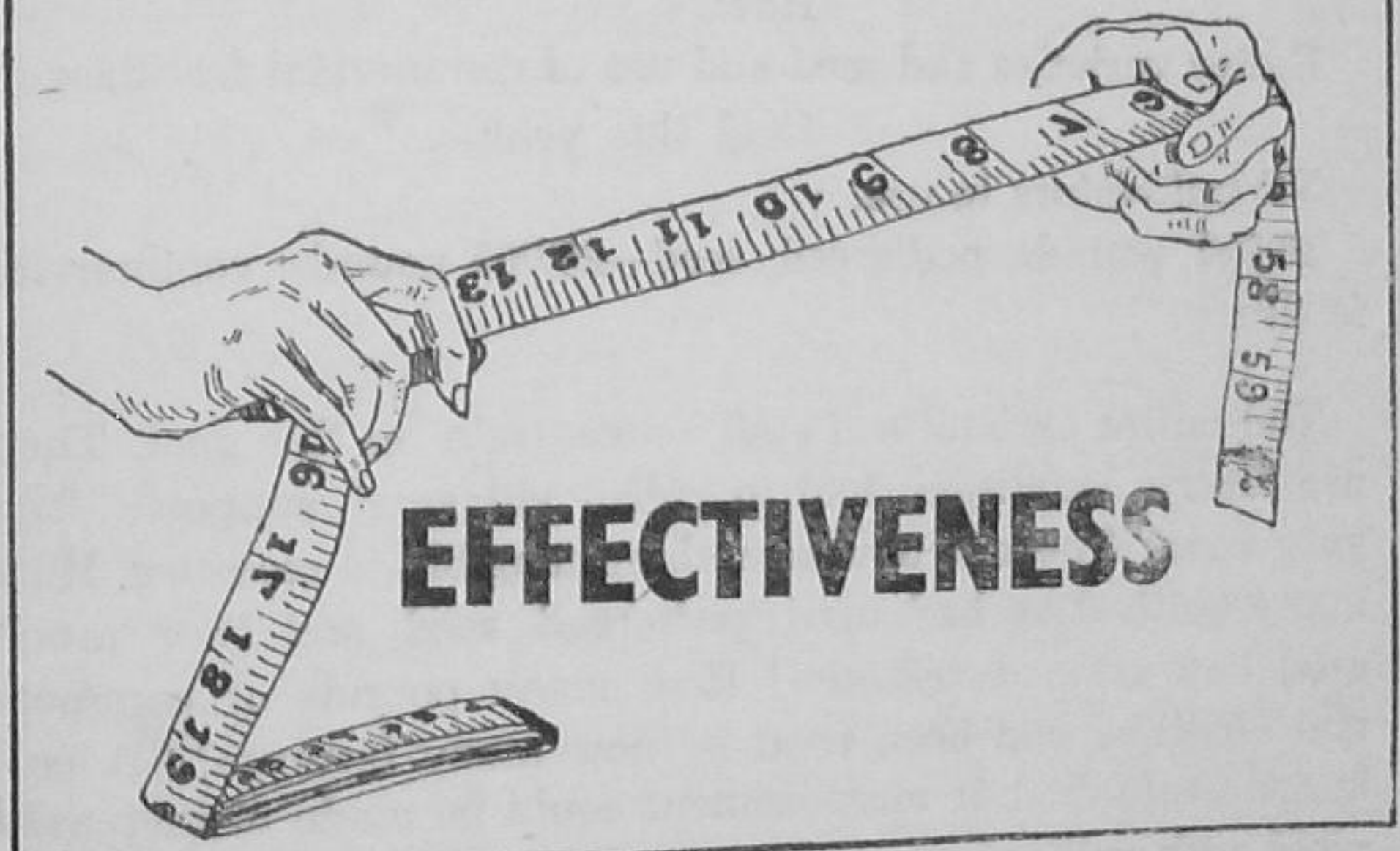
Chapter 18

EVALUATING RESULTS OF EXTENSION

THE wonderful advances in all fields of human activities that have come with unbelievable rapidity in the last two hundred years would have been impossible without a parallel development in the sciences of measurement; civil engineers can measure long distances and set boundaries that are accurate to within the fractional part of an inch. Scientists can measure the speed of a bullet as it leaves the muzzle of a rifle. Chemists can measure the amount of an impurity in a solution to one part in a million. The speed of light, the voltage of an electric current, the passing of time—all are accurately measurable. Although less accurate than physical measurements, great progress has been made in the measurement of intangibles such as innate intelligence, aptitudes and emotions.



Evaluation is measurement. The dictionary defines evaluation as "to ascertain amount of" or "to appraise carefully". To evaluate extension methods or results is to measure them, to ask the question "have they succeeded and to how high a degree?" Every activity of man should be periodically measured. Extension is no exception. In no other way can its failures be brought to light for remedial measures or its success be established.

To measure anything it must first be known what is being measured. Extension deals with people with human behaviour, attitudes and ideals. It seeks through self-help and sympathetic guidance and technical assistance to modify human behaviour and attitudes toward the end goal of happier living. To bring this about, extension workers after careful study and consultation with their villagers, set up written objectives.

General objective: To raise the standard of living.

How.

Specific objective: Increase production of food.

How.

Better varieties and seed and use of commercial fertilizer.

Goal this year.

500 cultivators to use.

10,000 pounds pedigreed seed—25,000 pounds commercial fertilizer.

The entire agricultural staff concentrate on this goal. They use every extension tool to enlist villagers' support. The year ends. There is now something tangible to measure. How many cultivators had used pedigreed seed, and how much seed had been distributed? How many pounds of commercial fertilizer had been used by how many farmers? A collected evaluation or measurement could be made of increased yield with cultivators who used pedigreed seed only and those who used both pedigreed seed and commercial fertilizer.

We earlier reviewed a very extensive American study of the effectiveness of various extension methods in persuading farmers to adopt improved practices. The effect of methods in America would in no way hold true in India but when exten-

sion is a few years old in a block a similar study could profitably be made here. Nearly all phases of an extension programme can be evaluated or measured with great profit.

EVALUATION

1. Shows the present status of a programme. This in turn points to where it should go.
2. Shows weakness or strength in methods employed and helps to readjust a programme when necessary.
3. Provides a sense of satisfaction in the achievement of a successful programme in a cause for redetermination of effort together with a reappraisal of methods employed when there is lesser success than anticipated.
4. When publicised, acquaints the whole community with extension accomplishment.

In making an evaluation it is necessary first to define exactly what is to be evaluated.

Is it to be a measurement of the success of different extension methods in bringing about adoption of improved practices; the adoption of certain skills, the percentage of realization of a given goal established at the beginning of an extention drive?

The tools that can be used in making an evaluation will vary with the object of evaluation. They include questionnaire studies, observations, records, physical measurements and reports by cultivators.

Every extension staff should carry on continuous evaluation. Evaluation is the compass that keeps an extension programme on the right course to its true objectives.

Questions for Study and Discussion

A. Block Development Officer called his agricultural officer and his Gramsevaks to his office. He said to them: "It is now 5 years since we began our work in this block. I want many measurements made of the effectiveness of our work and the methods we have employed. Fortunately we have kept many accurate records which will help in this evaluation. The agricultural officer will direct the Gramsevaks in making these studies and will summarize the findings. Much work is involved. I will assign two clerks to the Agricultural Officer to tabulate results. We are fortu-

nate in that we are near the College of Agriculture and a class of 60 men have been assigned to this block for two months of summer training. They will all assist the Gramsevaks in making the field studies. Here are the studies I want made.

B. We have records showing the number of cultivators, who in the first two years of our work were persuaded to use pure seed of an improved variety.

How many of them are still planting the improved variety? What increase in yield do they report over the last 3 years from use of improved variety only.

What increase in yield is reported by cultivators who used the improved variety and also commercial manure?

C. We have records of the number of compost pits started in our first two years. How many of these cultivators are continuing to use composts?

D. I want a study made of the drawing of a film when there has been advance announcements that a film would be shown at a group meeting.

E. I want to know the growth in number of Youth Clubs and in Youth Club membership since we began work in this Block.

I want another study made of what parents of Youth Club members think the club has done for their boy or girl.

F. I want to know if literate cultivators adopt improved practices in greater numbers than do those who are illiterate.

G. I want an evaluation of the effectiveness of the Extension methods we are using.

From the many improved practices we are advocating I have chosen six.

1. Use of improved seed.
2. Use of commercial manure.
3. Use of compost manure.
4. Use of green manure.
5. Use of improved plough.
6. Control measure for insects.

Survey all cultivators, who are using one or more of these practices and learn how they were persuaded to adopt each practice. Was it because of a group-meeting? An individual visit by an extension worker? A result demonstration? Evidence seen on a tour? Some other contact?

The instructor will divide the class into teams of 3 students and to each assign one of the studies to be made. The team will prepare a complete plan for the study and draft any needed survey forms.

When all teams reported, the instructor should choose the best plan submitted for each study and hold a detailed discussion of it with the entire class.

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Chapter 19

TRAINING AND USING LOCAL LEADERS

An average Block Extension Staff is composed of about 20 individuals trained respectively in the several fields of extension. They serve the rural people in 60 to 100 villages with a total population of 70,000 to 100,000 persons. It is an obvious impossibility for them to have the intimate adviser contact with all individuals that would best promote extension programme for village reconstruction. If the efforts of the extension worker are to reach great numbers of people they must be multiplied by utilizing the services of many local leaders.

THE AMERICAN EXPERIENCES WITH LOCAL LEADERS

It is interesting to note that in the forty-seven year development of extension service in the United States (extension service was there first established in 1914) each year has seen greater use made of local leaders. In 1951 it was reported that 1,200,000 local leaders gave active assistance in the promotion of extension programmes. Forty-six per cent of these workers were women working on adult programmes, 29 per cent were men on adult programmes and 25 per cent were men, women and older youth acting as leaders of 4H Clubs. Sample studies showed that the average local leader devoted 11 days a year to their leadership activities. Collectively this equalled the full time employment of more than 50,000 persons. This number is four times that of the total paid extension personnel. These local leaders were unpaid. They contributed their time and effort out of a sense of responsibility to their community and a desire to see the programme succeed which they had helped develop.

These local leaders presented method demonstrations at farm meetings, gave talks, made calls on neighbours, conducted result demonstrations, assisted with tour achievement days, exhibits, acted as leaders of 4H Clubs and assisted in many other ways in extension programmes. On an average each local leader influenced 12 people to make a total of 25 improvements in farm and home practices. The sum total of these improved practices employed as a result of the teaching and influence of local leaders would run into tens of millions.

One other very important lesson can be learned from the American experience. Local leaders must be trained before they can do their best work. It was found that leaders who had attended training meetings influenced 50 per cent more people to make two and one half times as many changes in practices than was true of leaders who received no training. (Extension Circular 495-U.S.D.A.)

A Gramsevak cannot reach a major per cent of the people in a village without working through local leaders. Every village had diverse interests, occupations and classes. As the Gramsevak first starts work in a village he must be alert to recognise those individuals who are the leaders in various fields—individuals whom their fellows respect and follow. He must cultivate these leaders and enlist their active support in bringing about village improvement. In certain fields he may find no natural leader. He then must cast about to find an individual with the potential of leadership and train him to assume leader's role. He will not be guided solely by his own observations but will consult a cross section of villagers of different interests, castes or occupations to find the persons to whom they look for leadership in various fields.

In his book *A Guide to Community Development* Ensminger has listed eight questions, the answer to which every Gramsevak should seek in locating village leaders.

1. What cultivators should be approached to try out a new variety of seed, keeping in mind the desire to locate the cultivators whose experience others would most likely follow?

2. What villager would make the best leader to organize and guide a village young farmers' club?
3. What villages would do the best job of organizing village recreation programme?
4. What villagers would be most likely to succeed in organizing the village to build a village school?
5. What villager would be most likely to succeed in getting the village to participate in a village-wide programme for small-pox vaccinations?
6. What villager would have the greatest influence in getting the village interested in building and using sanitary latrines?
7. What villager would have the most success in getting villages organized for literacy education?
8. What villager would likely have the greatest success in getting the village women together to decide on programmes for village women?

There is great need for virile aggressive local leadership in many fields of extension. In approaching different individuals in the village to enlist them as local leaders in one or another phase of extension, the extension agent must use sound judgement. He should contact only such men as he is convinced possess the qualities of successful leadership, which have been listed by Dr. H. E. Ramsower as:

1. Integrity.
2. Faith.
3. Perseverance.
4. Vision.
5. Planning ability.
6. Initiative.
7. Courage.

In every village an extension worker will find certain individuals who already hold positions of leadership in different fields of village life or with different village group. They may be members of the village Panchayat or members of caste groups or of interest groups. In many cases these men have risen to positions of leadership because they are strong men

who possess the native qualities of leadership and an extension worker will be well advised to seek their vigorous help in extension programmes. In other cases an individual may owe his position to heredity and may possess no desirable qualities of leadership. Such an individual should not be approached with suggestion that he led in an extension activity. Then, too, in most villages there are rival factions. The Gramsevak in seeking local leaders must be very careful not to identify himself or his extension programme with any one group. Extension serves all the people. Local leaders must be chosen who will serve all the people and not show special favours to any group or faction.

The individuals that are found to be accepted as leaders in the various fields of village interests are usually honest men above average in intelligence and ability. Such men will have opinions of their own. They may not agree with the Gramsevak on some of the programmes he would like to foster or perhaps on some of the methods to attain objectives of the programme. The Gramsevak must respect their opinions. Where the ideas of the individuals are obviously incorrect the Gramsevak should tactfully try to show the error but he must never be obstinate or domineering or insistent on his own plan. With each local leader the Gramsevak should carefully outline the problem in his field and train him in the science needed for its solution. Meetings of all leaders in a village should be frequently held and the work of each men explained so that each leader will be inspired by the broad attack on village improvement in which he is playing a part.

All men are appreciative of compliments for good work done. All members of a Block staff on every possible occasion should give public recognition to the local leaders, both individually and collectively, for their faithful services.

It is highly desirable that villagers be encouraged to think for themselves. Community development is not a programme conceived by high authority to be imposed in detail on a docile village for its own good. Community development is a self-help programme. It offers expert counsel by a Block staff but it invites and helps train the people to think for themselves, to recognise village and individual problems and to plan and carry through solutions to these problems.

Outside leadership has an important role in village reconstruction but internal leadership is even more important. Villagers are disposed to follow the advice and example of their own leaders more quickly and with greater confidence than

WHY USE LOCAL LEADERS IN EXTENSION TEACHING?

1. YOU INCREASE THE NUMBER OF TEACHERS AND MAKE LEARNING POSSIBLE TO A GREATER NUMBER OF PEOPLE.
2. YOUR TIME WILL BE USED MORE PRODUCTIVELY.
3. LEADERSHIP DEVELOPED THROUGH EXTENSION STRENGTHENS WORK IN OTHER COMMUNITY ACTIVITIES.
4. LEADERS SPEAK IN THE LANGUAGE OF THE LOCAL PEOPLE AND THEREFORE ARE OFTEN BETTER UNDERSTOOD BY THE PEOPLE.
5. LEADER TRAINING PRODUCES SELF-CONFIDENCE HELPS PEOPLE TO DO THINGS FOR THEMSELVES.
6. LEADERS CAN HELP TO ANALYSE LOCAL PROBLEMS AS A BASIS FOR PROGRAM DEVELOPMENT.

of outside leadership. A long range, never ending programme for village uplift must depend largely on developing local leaders who have imagination, enthusiasm, sound judgement and

perseverance. The effectiveness of the Block staff can be magnified many times by working through local leaders. They are an indispensable factor in bringing about village reconstruction.

Questions for Study and Discussion

1. What are the personal characteristics usually found in a successful leader? Make a written list of desirable qualities. For example, he must be civic minded and interested in the welfare of all families in the village.

2. You have studied a certain village in your nearest Block.

How many local leaders could you identify?

In what fields of improvement they were working?

What methods was each following in persuading neighbours to adopt an improvement method for their personal good or to take an active part in some plan for general village improvement?

What fields of village improvement were untouched because no local leader had been found?

If you were an extension worker in that village how would you look for a local leader in an untouched field?

To keep his enthusiasm high how often should an extension worker contact a local leader?

3. Do you believe that old men should sometimes be chosen as local leaders?

Should young men be encouraged to become local leaders?

Are there times when an illiterate might be trained for effective local leadership?

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Chapter 20

MAKING COMMUNITY DEVELOPMENT A PEOPLE'S PROGRAMME

IT HAS been the experience of every country in the world where village reconstruction has been attempted that a programme blueprinted by Government and superimposed by Government agents on villages has not succeeded. Success can follow only where it becomes a people's programme; when villagers can be led to see that improvement is possible by their own efforts under their own leaders. Every member of the Block staff from Gramsevak to the B.D.O. should constantly strive for village sponsorship of improvement programmes and village co-operative action under village leaders for its accomplishment.

THE VILLAGE PANCHAYAT AND VILLAGE DEVELOPMENT COUNCIL

In most villages the village Panchayat should be cultivated as the most influential body to sponsor a complete development programme. Its members are usually mature citizens, respected in the community and in a position of natural leadership. In starting work in a village the Gramsevak should call individually on members of the Panchayat and establish friendly relations. With each he should talk of the possibilities of village improvement and ask of each member his opinion of the one, two or three problems confronting the village that most need immediate solution. He should remember that while the Panchayat has performed many important functions in the village the idea of a broad village development programme is new to them and time will be needed for them to give it careful consideration. They should not be rushed in reaching decisions. Only after each member has been thoroughly acquainted with the possibilities in a development programme should the Gramsevak ask per-

mission to meet with the Panchayat as a body and try to enlist its official sponsorship.

If a broad development programme is to be undertaken all segments of village life, all castes and all occupations must have representation on the sponsoring body. Sometimes the membership in the Panchayat is not representative of all segments of the village and will be unable to unite all segments in planning and development work. When this is apparent the Gramsevak may be able to persuade the Panchayat to enlarge its membership so that all classes will be represented. Sometimes the idea of increased membership will meet with firm resistance. Membership in the Panchayat is an however and carries prestige. Members may feel that an enlargement of membership may dilute his honour and prestige and be unyielding in their opposition. In such case the Gramsevak should try to persuade the Panchayat to organize a village Development Council that would function under the direction of the Panchayat. Were the Panchayat to enlarge its membership new members would be privileged to take part on all matters ruled on by the Panchayat. Where a Development Council is created under the direction of the Panchayat its members would be concerned solely with development planning and programmes and the prestige of the Panchayat would in no way be lessened. The Panchayat is seldom opposed to the formation of a Development Council.

Whether the Panchayat itself agrees to sponsorship and leadership in the development programme, or whether such planning and direction is delegated to a Development Council, it must be remembered that the members of neither body, particularly at the beginning of their services, have had any experience in the new field. The Block staff through the Gramsevak and other members must work closely in all planning and development. Early programmes should be relatively simple and direct and of such nature that results can be easily measured. When villagers see the benefits of first programmes their eyes will be opened to the fact that through village-wide efforts village-wide benefits are possible. They will then work with renewed enthusiasm and greater faith on new programmes as they are planned and launched.

It should be here noted that recent action by the Central Government recommends and makes permissive for State Governments to regulate by law the election of Panchayat members. Included is a requirement that all classes shall have representation. Several states have already passed such regulation and it is under consideration in other states. Where such law has been adopted the Panchayat will represent all classes, even the lowest classes being privileged to elect one or more members according to their proportion of the village population. It should be remembered that villagers are steeped in traditions of the past. They have little knowledge of the progress of science or vision of what science can do in improving village life. A major duty of the extension staff is to open their eyes to the new world that is possible for them and to guide them in planning improvement. Without kindly and continuous guidance a few early successes may lead the Panchayat or council to undertake projects that are beyond their abilities and doomed to failure. One failure may lead a village to lose confidence in the whole development programme.

One of the best ways to educate Panchayat or council members in their duties, to fire their enthusiasm for new developments and instruct them in the elements of new success is to hold at least once each year a camp for Panchayat and council leaders. The camp should run for two weeks and be planned in season when farmers can most easily leave their work. Here may be brought together the leaders from several villages. They can exchange experiences, learn what has been done in other villages, plan together for new developments with the extension officers offering support and guidance. A leaders' training camp gives ideal opportunity for extension agents to educate leaders, guide them in new developments and spur their enthusiasm. Extension specialists will have opportunity to present new ideas. The Agricultural Officer can discuss new plans for securing and using improved seeds and fertilizers; the animal husbandry specialist may present a needed disease control method; the Public Health Officer may explain malaria control; the Social Education Organizer may outline a plan for a youth recreation programme. A spirit of competition will be engendered. Leaders from villa-

ges where the programme has been meagre will return home determined in the next year to equal or exceed the developments in neighbouring villages.

THE BLOCK ADVISORY COMMITTEE

In their endless efforts to make Community Development truly a people's programme and not a dictated plan, the Block staff will find a Block Advisory Committee a factor of great importance. The Second Five-Year Plan placed great importance on the role of the Block Advisory Committee. Its membership may be elastic. It may include an elected member of each Panchayat or village development council, the district representatives in the State Legislature, the district collector, representatives of municipal committees, and of co-operative organizations. Individuals from educational institutions and service organizations or individuals from any fields allied with development may be invited.

Members of the Block Advisory Committee should be educated men, trained in their respective fields and with broad experience and outlook. When first appointed they will probably be quite unfamiliar with the duties of the Block Advisory Committee and it becomes the duty of the Block staff to provide them with orientation. They should outline to each member, individually or in small groups, the broad objectives of community development and the organization of the extension staff for village guidance. Block staff members should take each member of the Advisory Committee on repeated visits to villages so that the new member may gain first hand knowledge of village problems and village attitudes toward their solution.

When the Advisory Committee has been given a broad view of the possibilities in community development their services can be of great value. Regular meetings of the Committee should be scheduled with items for consideration carefully prepared in advance.

Any problem of Block-wide importance should be considered by the Committee. They may review the accomplishments of programmes in progress and carefully draft recommendations for the next year's work; give assistance in the organization of co-operatives; make recommendations for

Block-wide programmes in agricultural production, public health drives, improvement in village small industries, focus attention on school needs in villages and offer plans for improvement; organize fairs, exhibits, training camps. They may, in short, offer plans and practical assistance for improvement in any or all fields for which there is evidence of need of Block-wide programmes.

A Block Advisory Committee must be brought to realize that its services are permanent. Old members may drop out and new ones join the ranks, but the role of the Committee is continuous. The Block Advisory Committee represents the people. It speaks for the people. Its members are the people. The Block extension staff will find its counsel and support of inestimable value.

The spirit of community development is self-help through local planning and action, guided by a trained and experienced Block staff. The staff alone can do little. The field is immense and their numbers are few. Even were their numbers increased a hundred fold and a full Block staff be assigned to every village any ready-made plan they might formulate would largely fail. Development must be a people's programme. The people must be led to a vision of what can be done by their own planning and action under their own leaders.

Questions for Study and Discussion

1. All members of the class should attend a Panchayat or Village Development Council meeting, and if possible a Block Advisory Council meeting. Take careful notes of the proceedings.

In the next class meeting have the various classmates give a full report of the meeting attended.

Who served as Chairman?

Who introduced the business of the meeting?

Was keen interest shown in the new business?

Did all take part in the discussion or did a very few members monopolize the time?

Did the meeting end with mere general discussion or were actual action plans laid?

In your opinion how could the conduct of the meeting have been improved?

2. You are leading a meeting of a Development Council and have outlined a proposal for village improvement that would require widespread work and participation on the part of the villagers. A village leader protests and insists that the Government should be responsible for all improvement for villages — build roads and school houses, provide teachers, dig a new village well, do all cleaning or work for malaria control and furnish free fertilizers and insecticides to cultivators.

How would you answer such position?

REFERENCE

Ensminger: *A Guide to Community Development*, chaps. 15 and 16.

Chapter 21

YOUTH CLUBS

INDIA is predominantly a rural nation. For centuries most of her people have lived in villages and followed an agrarian life. Today nearly eighty per cent of her people are villagers. A hoped for rapid increase in industrialization may draw rather large numbers of rural people to cities but this will be compensated for by the rapid increase in population. It is probable that for an indefinite future there will continue to live in villages as many people as do today.

The future of Indian villages will be determined in large measure by their boys and girls. Born in a village, reared in a village, they will continue in predominant numbers to live their lives in a village. They can be led to become one of the most potent factors in village reconstruction. Extension service in America has capitalized on progressive agricultural education with boys and girls through Youth Clubs there called 4H Clubs. Hundreds of thousands of young people trained in 4H Clubs have become leaders in rural development in their home communities. In the great Community Development programme in India the training of youth through Youth Clubs should be a major part.

WHY TRAIN YOUTH?

1. The boy of today is the man of tomorrow. Habits and attitudes formed in youth carry on into adult life. If a boy in his teens taught scientific methods in agriculture through club projects in which he uses better seeds, chemical fertilizers, insecticides and proves their value, he becomes scientific minded. He learns to question traditional methods, develops faith in practices recommended by research and extension. These attitudes remain when he becomes a man.

2. Parents love their children and usually are proud of them. Many, many times a boy trained in an improved method in a youth organization can persuade a hesitant father to break with tradition and employ an improved method in his farming far more successfully than can an extension worker. In his own home and on the family land the boy can become a juvenile extension agent.

3. In Youth Clubs young people learn to work together on group projects that benefit the whole village as well as on individual projects that benefit themselves and their families. This develops the sense of team work and co-operation.

4. In Youth Clubs, boys and girls are given the opportunity to develop ability in leadership. In working together, in playing together, in practice in public speaking and in conducting a meeting, leadership ability is developed to a high degree. This ability will carry over into adult life. Youth Club trained young people will become active, intelligent leaders in village life.

5. Youth is a period of superabundant energy. A boy can sit still for only a short while. He craves for activity. He wants to associate with his fellows, to work with them, to play with them. He has an unconscious group spirit. He wants to be identified with a group, to feel that he belongs.

Most villages offer little or no opportunity for constructive activities for young people. In a Youth Club these cravings can be satisfied. Through individual projects a youth can be taught to work alone. Through group projects he learns to work with his fellows. Through Club recreational activities he receives lessons in fair play, sportsmanship, tolerance. Through group projects that are for the benefit of the whole village he becomes civic minded. He learns that many undesirable conditions can be corrected by group action. He becomes a co-operator in plans for village improvement. Youth Club training, in short, is the finest training for intelligent, responsible adult citizenship.

SUGGESTIONS FOR ORGANIZING AND DIRECTING A VILLAGE YOUTH CLUB

1. No attempt should be made to organize a Youth Club in a village until the plan has been openly discussed and

village acceptance and sponsorship been assured. The Gramsevak can point out to the village elders and to the parents of prospective members the limited opportunities existing in the village for any type of youth activities. He can outline the type of projects that would be carried on by a well organized Youth Club, showing that in these activities young people could find outlet for their boundless energy and at the same time receive training that will make them better citizens and the village a happier place in which to live. He must enlist the support of village leaders.

2. A Youth Club should not be organized until a local leader has been found who is willing to give generously of his time for work with boys. Through repeated discussions with the Gramsevak he should be well schooled in his duties as leader and be acquainted with all details of the programme. He must be a man of mature judgement, respected in the village and one who finds pleasure and satisfaction in working with young people.

The Gramsevak should attend the organization meeting, the first few meetings of the club and an occasional meeting thereafter. The main responsibility, however, must be carried by the local leader. Without a local leader of ability and enthusiasm a club is doomed to failure.

3. Formal organization of a Youth Club should be preceded by a meeting to which the parents of prospective club members are invited. To them should be presented the purpose of a Youth Club, the activities contemplated and the benefits to the members, their families and the village in general that would follow. Not only the consent but the enthusiastic support of parents must be had if the club is to be successful.

4. When the above preliminary work has been accomplished an organization meeting may be held. At this first meeting:

A. Members should be enrolled.
B. A name for the Club should be chosen.
C. Officers should be elected and their duties clearly explained.
D. A schedule of regular meetings should be set.

E. A programme of activities should be accepted and endorsed.

5. Every club should have a programme of group projects and of individual projects.

Each member of the Club should have an individual project that will bring about an improvement in his home or on the family land. Such projects many times will be small in scope but they can be highly educational and will lead to benefits for the whole family. Individual projects should be selected by the boy, his parents and the local leader in consultation. No boy should be accepted as member of the Club who is unwilling to carry an individual project. The local leader will supervise the boy in setting up his project and will advise him on scientific methods for its conduct, referring to the Gramsevak or the Agricultural Officer if further scientific advice is needed.

Examples of Individual Club Project

Growing a garden for family use.
Starting a poultry flock with 5 birds.
Growing a calf.
A crop project using improved variety.
Trying chemical fertilizer on a small crop project.
Building a smokeless *chula*.

Examples of Group Projects

Tree planting and care of trees.
Landscaping the school-house grounds.
Presenting a drama.
Setting up an exhibit on some improved method in farming.
A public health Project.

6. Boys need recreational activities. A part of every club programme should be the organization of athletic events, short tours to places of interest, training for and presenting a drama or holding evening song feasts, or perhaps a short camping trip for the whole club. All work and no play makes Jack a dull boy. There is a need for recreational activities in every youth programme. When a bit of fun is mixed with work boys will work with new spirit. Care should be taken,

however, that recreation does not become the major objective or activity of the club.

7. Good work by boys in their youth programmes should be given recognition. Each year an Achievement Day should be held in which all the people in the village are invited to make a short tour of inspection of the projects developed by Club members. A committee of three judges should carefully judge the projects and award modest prizes for the most successful projects. This will stimulate a spirit of competition. Each boy will determine that the next year he will have a project that will be a winner.

8. After several villages in a Block have organized Youth Clubs the Block staff should organize yearly leader camps. Local leaders of all clubs should attend together with prospective leaders from villages not yet organized. The experience of current clubs should be reviewed and full discussion held on ways to make the programme more effective.

Youth Club work can become one of the most potent factors in upgrading village life. It would be given an impetus if a committee of national leaders in Extension would adopt a national name for club work, a national emblem and draw up a national constitution.

Literally millions of rural boys and girls in America found their first education in science, in agriculture and in home and community improvement through training in 4H Clubs. They have grown up into happy and successful rural citizens who are leaders in their respective communities. Youth Club education can play the same role in India.

Questions for Study and Discussion

1. Agricultural Youth Clubs in America are called 4H Clubs. The national emblem is a 4 leaf clover with the letter H on each leaf.

For what does 4H stand or what is its meaning?

2. India has no national organization of Youth Clubs. Not many have been organized and no standard pattern has yet been set for their organization. Were a Committee of agricultural leaders to set up a national organization:

A. What national name for agricultural Youth Clubs would you suggest?

B. What emblem should be adopted?
C. What age range should be admitted to membership? (In America any boy or girl from 10 to 20 years of age may be accepted for membership).
D. Do you believe boys and girls should be accepted as members of the same Club or should there always be separate Clubs? Why?
E. How often should such Youth Clubs have regular meetings?
F. What are some of the things that could well be part of the programme at Club meetings?
G. What officers are needed by a Youth Club? How should they be elected? What would be the duties of each?
H. There should be a short ritual by which all Club meetings are opened and closed. Draft a short ritual that could be used for this purpose.

3. Make a complete list of the highly desirable lessons that can be inculcated in boys and girls through Youth Club teaching and activities, such as:

Patriotism and love of country.
Pride in cleanliness and health.
Sportsmanship.

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Chapter 22

THE ROLE OF THE VILLAGE SCHOOL AND TEACHER IN COMMUNITY DEVELOPMENT

No great democracy has long endured an illiterate population. The right to vote is the right to help direct Government, to choose its leaders and to endorse or reject suggested Government policies. To make wise choices in the election of officials and to vote intelligently on public policies a voter

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must keep himself well informed. He cannot do this simply by talking with his near neighbours. He must be able to read newspapers in which public issues are discussed. An ability to read easily will broaden his horizon, give him a view of national and of world affairs, make him an infinitely

more intelligent voter and a happier citizen because of his broadened interests.

The adult population of India is eighty per cent illiterate. This is very bad but even worse is the fact that more than fifty per cent of the boys and girls who in only a few years will be adult, voting citizens, are growing up illiterate. Less than half of India's children of elementary school age are enrolled in school and many of them will not continue in school until they have finished the first 5 forms of elementary school.

The Block extension staff should play a leading role in promoting school facilities in villages that will bring the opportunity for schooling to every boy and girl in every village. They know that at least an elementary education should be the birthright of every boy and girl and that India will be a richer country when all of its citizens are literate. They know further that the village school and the village teacher can be made to play a very important role in community development. The village school should be the centre of village educational activities. The teacher should be able not only to teach village youth in the school room, he should also be a leader in educational activities for adults, helping them to recognise village problems and lending constant encouragement and guidance in their solution.

In most village schools of today the village teacher is incapable of assuming a role of leadership in village educational activities. He is very poorly trained even for his duties in teaching children and has had no training that would develop in him abilities for leadership in adult educational activities. He is very poorly paid and poorly housed. With village teacher's pay scales of around Rs. 30 to Rs. 50 per month bright young men and women are not attracted and usually only those with little ambition and an apathetic viewpoint on life will take the job. A further and very serious handicap to finding intelligent and ambitious young people for teaching is the typical village attitude of disrespect and almost contempt for teachers. The teacher is rated low in the village social scale.

Block extension workers can do a great deal to persuade villagers of the supreme importance of a good school and of a

well trained, enthusiastic teacher for the welfare of their children and for village progress. They will find it comparatively easy to interest villagers in building a satisfactory school building but more difficult to lead them to see that a good teacher well paid, well housed and accorded the respect due to a professionally trained person is much more important than a building. If necessary, steps should be taken to raise money from village sources to augment the teacher's salary. Co-operative village labour could build him a house and sufficient garden space be allotted to him. By his own abilities and efforts in village improvement a good teacher can gradually win the respect of the villagers.

A good teacher decently paid and decently housed who likes his neighbours and wins their respect will usually be contented to stay for many years as the village teacher, finding a rich satisfaction in the development of the boys and girls in his classes and in his efforts outside the classroom for village improvement. Such a teacher can be of great help to the Block staff in selling the idea of needed improvements to his villagers and in taking an active role in guiding their implementation.

A village teacher has had little or no training in village development work. To fit the teacher for his role as a major assistant in promoting village improvement, the Block staff must undertake this part of his education. If an agricultural specialist plans a programme for an improvement in agriculture, he can spend time with the teacher to fully explain in all details the scheme to be undertaken. The teacher can then become a spokesman in the village. The Social Education Organizer can enlist the teacher as an assistant in plans for a recreation programme or the presentation of a drama. After proper education in his duties, the teacher can become an able assistant in almost all development programmes promoted by the extension staff.

When preliminary work has been done to arouse the interest of teachers in the broad role they can play in community development a summer training camp provides an excellent device for intensive training. An initial camp of at least two weeks should be held followed each year by a one week camp. If a sufficient staff of instructors can be assembled, all

village teachers in a Block may be invited. A carefully prepared schedule of classes, practical field work and recreational and social activities should be prepared in advance and followed. The various classes may be taught according to their abilities by various members of the extension staff, by teachers from nearby training schools and colleges or by governmental officials in appropriate departments of Government. A great variety of fields may be studied. A complete orientation should be given in the reasons for, the organization and administration and the broad vision of community development. Each field should be given individual attention, such as agricultural improvement, health needs, co-operatives and rural recreation. Begun in the first camp and carried on in successive camps broad training in agriculture, horticulture, poultry, food and nutrition and other technical subjects can be given.

An intelligent, aggressive village teacher who will grasp the opportunity offered him to win leadership in the promotion of various fields of village development will find that gradually he has overcome the old attitude of disrespect for all teachers and has won a position of friendship and respect of his neighbours. He will find a feeling of deep satisfaction in the part he has played in village development. This role he can play without any neglect of his primary duty as the teacher of youth in the village school.

The Block staff will find that enlisting the help of a good village teacher, training him in the thing he must know and guiding him in his leadership activities in the village will pay rich dividends. With careful effort they can develop the teacher into a number one local leader capable of exercising strong influence and excellent guidance in many fields of village improvement.

Questions for Study and Discussion

1. As you work in local village hunt up the teacher and get acquainted with him. Ask him questions.

What is his monthly salary?

Is the teacher provided a house? A garden plot?

Will he draw a pension or retirement pay when he reaches retirement age?

Does he feel his position of teacher is of great importance—a position he is proud to fill?

Does he believe he has been accepted by the villagers and has their respect?

What complaints has he to make as to his job?

What points does he like?

2. More than eighty per cent of the adult population in India are illiterate.

Talk with the teacher: Would he be willing to teach a class in reading for adults as a service in upgrading village life? Talk with villagers, especially young adults and see whether you could not find a dozen who would be eager to learn to read.

If through your efforts a class of adults could be organized who would meet twice a week for one hour to learn to read, you would have performed a signal service in their upgrading.

REFERENCE

Ensminger: *A Guide to Community Development,* chap. 18.

Chapter 23

TEACHING ILLITERATES

Extension education is designed for the 80 per cent or more of the population of India who live in villages. It is concerned with improving agriculture and with the uplift of village people. It is an unfortunate fact that as a national average four out of five adults in Indian villages can neither read nor write, the rate of illiteracy among women running considerably higher than among men. Government leaders have wisely placed great emphasis in the development plans for the nation on building thousands of new schools and training an army of new teachers. The boys and girls of today will have educational advantages denied their parents. Extension agents, however, must recognise that for many years to come they must work with men and women who are largely illiterate and must adapt their methods to the instruction of people who cannot read.

WHAT ARE THE GENERAL CHARACTERISTICS OF ILLITERATES

1. Since he can neither read nor write the world of an illiterate is small. He has no contact with nor any appreciation of science. Frequently he has never been farther than a few miles from his village and has no concept of the great world beyond.

2. An illiterate usually holds a very firm belief in age-old superstitions, fables and charms.

3. An illiterate has an inborn suspicion of strangers and new ideas. His experience has been that strangers who come to the village usually exploit village people in some way.

4. Far more than people of education, illiterate people fear ridicule or being laughed at. They want to follow the same customs and practices as their neighbours. They are afraid to try a new idea unless all their neighbours do.

5. An illiterate individual usually has great respect for the opinions of a very few of the oldest members of his family or village. He is afraid to start a new practice without approval of the old ones.

6. An illiterate is tightly bound by joint family rules and beliefs. He is loath to make a decision as an individual.

A well trained extension worker will adapt his methods to the attitudes and capacities of such people. He will know that:

Very little use can be made of bulletins, news releases, circular letters or newspaper articles.

Posters must carry the message *in the pictures.*

Posters making use of two or more colours are most effective.

Posters with match-stick characters are appealing and easily understood.

For villages so fortunate as to have a radio, the extension agent must develop with his people a confidence in the programmes before they will accept as truth lessons received over the air.

Lessons by radio must be in the language of the listeners and must follow the linguistic and dramatic standards of country people.

Moving pictures can be used effectively both to gather crowds and to teach needed lessons.

Certain extension methods have special value in teaching people who cannot read:

1. Group discussion.
2. Result demonstration.
3. Method demonstrations.
4. Tour-seeing well managed farms that show the results of scientific methods.

The use of local art forms are popular and are very important.

1. Dramas.
2. Puppet shows.
3. Musical couplets.

4. Festivals and *melas*.
5. Movies and slides.

Extension experience has shown that in dealing with people of little or no education it is usually easier to get group action than individual action. The experienced extension agent strives to win the friendship and confidence of the whole family, including the women members of the family and to lead them to make family decisions rather than individual decisions. Frequently a family decision to employ an improved method in farming is based more on their respect and friendship for the extension agent than on the scientific proofs of the value of the new method that he may have advanced. The importance of developing warm, personal friendship with whole families cannot be over-emphasized.

Questions for Study and Discussion

1. What percentage of children between 5 and 14 years of age are enrolled in school in this State?
2. How many new elementary schools have been built in the last 3 years in the development block in which you have studied?
3. Make a list of all the superstitions and fables with no scientific foundation whatever that are firmly believed by village people.

How do these false beliefs affect their attitude in accepting scientific methods?

4. By what means can an extension agent combat superstitions and fables that conflict with scientific methods for improvement of village life.

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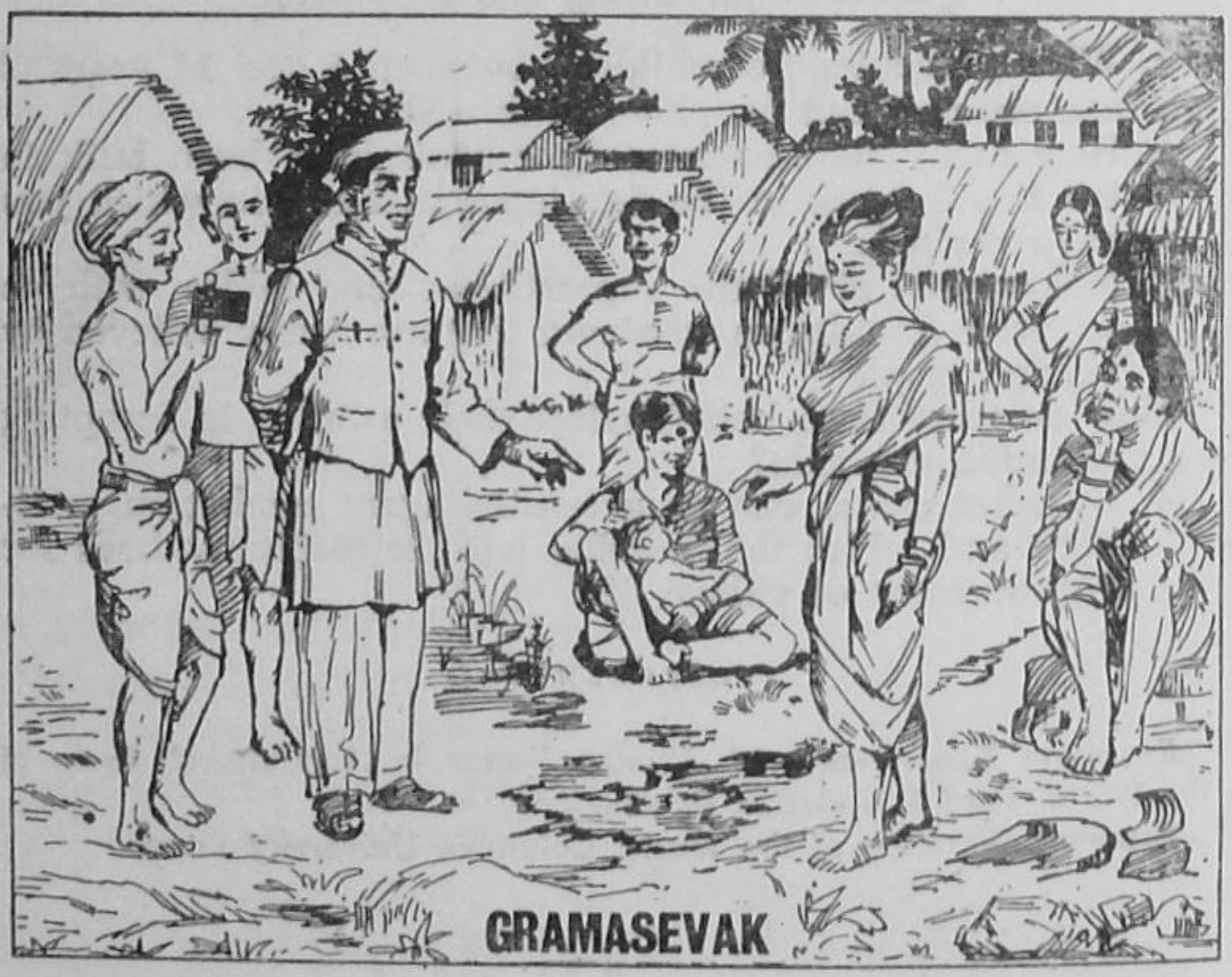
Brunner: *Farmers of the World*, Columbia University Press.

Chapter 24

THE ROLE OF GRAMSEVAK IN EXTENSION

When Indian leaders first envisioned a broad uplift programme for rural India they appreciated that no one phase of lowly village life could be singled out for attack. The many aspects of rural living are closely interrelated and all were in need of immediate improvement. Agriculture, the basic support of village life, was at a very low ebb. Village industries



were in decay. Rural housing was deplorable, there was complete ignorance of public health measures, a grave lack of sanitation and a near or complete lack of educational faci-

lities. These and many other problems vital to human living called out for immediate attention.

It might have been possible to have organized an agricultural extension service to help villagers solve their problems in agriculture and to have placed beside it in the field another organization to attend to public health and yet others to independently serve in improving each phase of village life. Such multiple organizations would have been extremely costly, cumbersome in administration and ineffective in the field. With real wisdom the planners for rural uplift drafted the Community Development Programme in which in one Block staff are placed highly trained experts in the different fields, each capable of leading a campaign for improvement in his special field.

Each Block, however, contains 60 to 100 villages with a total population of 60,000 to 100,000 people. No agricultural officer, nor officer in any of the other fields could possibly contact that many villages, became intimately acquainted with the people in each village and give to individuals or groups of individuals the service and leadership so badly needed. The problem could not be solved by increasing tenfold the number of highly trained experts in each of the different fields. There was immediate need of extension work in all parts of the country, there was a grave shortage of such experts, nor could colleges turn out newly trained men in sufficient numbers to meet the demand. Further, because rural skill and knowledge in all of the different fields of uplift was so low, a college trained expert was not needed for all improvement projects and a man of lesser education but trained in broad basic skills could well serve especially in the earlier stages of uplift. There was therefore drafted the position of a multipurpose worker—the Gramsevak, or village level worker to be assigned for work in the Block, one man for each 10 villages. Where distances between villages are great or where village population is very high a Gramsevak could be assigned a lesser number of villages down to five.

There are 558,000 villages in India and very shortly they will all be incorporated in a Community Development Block. At the ratio of one Gramsevak for each 10 villages there will be 55,800 Gramsevaks working tirelessly for village improve-

ment. This army of men has been trained and put to work in the field in the short period of 10 years. India can take great pride in this accomplishment. At no time in history, in no other country in the world, has such a vast number of extension workers been trained and placed in service in so few years.

Consideration is being given to the assignment of one Gramsevak to each 5 villages. Were this to be done, it would increase the army of Gramsevaks to over 100,000 such workers in the villages of India.

DUTIES OF A GRAMSEVAK

A Gramsevak is a multipurpose worker. No other man in the field of extension has so many duties in so many different fields. He is subject to directions from each of the various extension officers, each zealous for progress in his own field. Where this leads to contradictions the Block Development Officer is the final authority in establishing priorities of duties. It would be impossible to detail all of the duties of a Gramsevak. There can be listed some of the major activities expected of him.

1. He must live in one of the villages he serves. He must cultivate an intimate acquaintance with all families and all groups in all of his villages, help them to recognise their gravest problems and guide them to solutions.

2. He must carefully analyse the most serious needs of each village, work out a plan for improvement, get the approval and co-operation of his Block Development Officer and the specialists on the staff, and find individual and group leaders in the village who will assist him in putting the plan in action.

3. At all times he must be a teacher of newer and better ways. He must organize result demonstrations to prove to cultivators the benefits of improved varieties, better seeds and commercial fertilizers in growing crops. He must develop method demonstrations to teach them new skills in tillage, in spraying and pruning. He must organize fairs and exhibitions to interest villagers in improvement methods. He must arrange tours to show them the benefits of newer ways.

4. He must assist in animal husbandry by teaching farmers to castrate scrub bulls and how to care for a sick or injured

animal. He must teach the benefits of improved breeding practices and help find good bulls for service.

5. He must be a distinctive agent for his cultivators, assisting in the distribution of improved seeds, insecticides, spraying materials and fertilizers.

6. He must encourage village industries, helping them find need-tools and raw materials and helping find markets for their products.

7. He must foster village improvement by organizing voluntary work programmes and sanitation campaigns and support in every way the work of public health and medical officers.

8. He must collect statistics on crop yields, make surveys and studies in various fields and prepare numerous reports.

9. He is the connecting link between the people and their problems and the specialized development departments. Methods of which he is certain he teaches directly to the people. When he encounters problems to which he does not know the answer he carries them for solution to the specialist in that field and helps put in action the recommendations of the specialist.

In information booklet No. 6 published by the Mysore Government, the role of the Gramsevak is beautifully described in these words: "No other official, regardless of his status or sphere, can come in contact with so vast a rural population, in so intimate a relation and with so great a responsibility to discharge as a Gramsevak".

For the broad and different work of a Gramsevak certain definite qualifications are essential.

QUALIFICATIONS FOR A SUCCESSFUL GRAMSEVAK

Candidates for admission to a Training School for Gramsevaks should possess certain definite qualifications for the broad and different work in this field.

1. He should have a rural background and definite farm experience.
2. He should have finished High School.
3. He must have a liking for people, a sympathy for them and a faith in their capacity with help and guidance to upgrade their present low standard of living.

In a two year Training school will be added:

1. Sound training in basic agricultural subject matter and skills.
2. Training in the sources and channels of information.
3. Training in the philosophy, objectives and organization of extension.
4. Training in the methods of extension.
5. Training in the recognition of rural problems and in planning their solutions.
6. Training in teaching adult rural people.
7. Training in rural youth organizations and clubs.
8. Training in a broad knowledge of the work of all specialists in the Block development staff.

Years from now when Community Development will have come of age, when crop production will have been doubled, when public health is assured and every child has his school and teacher — when rural sociologists will glory in the ever advancing standard of living in rural India — a special tribute will be paid to the Gramsevak, the friend and guide of the farmer, the contact man between farmers and Government departments, the mass educator of adults, the spark plug of extension — the multipurpose Gramsevak.

Questions for Study and Discussion

1. In field practicals the class has had contact with many Gramsevaks.

List the different jobs, the different kinds of extension work you found them doing.

2. In private conversation many Gramsevaks have advanced bitter complaints, a few of which are listed here.

Hold a class discussion on each one. From your own observations and that of your classmates do you believe they were justified?

A. Since all specialists on the Block development staff hold a college degree but the Gramsevak has had only two years training after high school, the specialists look upon him as an inferior and treat him with contempt.

B. Any opinion expressed by a Gramsevak at a staff conference is ridiculed.

C. Staff specialists frequently ridicule the Gramsevak in the presence of villagers. They, in turn, then adopt the same attitude toward the Gramsevak.

D. The Gramsevak is made into an errand boy for the Block staff and given no opportunity to carry on his own work.

E. Innumerable records are demanded of the Gramsevak but he is given no office, nor even a desk on which to prepare them.

F. If target goals in any field of extension are not reached the specialist in that field in the Block staff always lays all blame for failure on the Gramsevak.

3. It is demanded of a Gramsevak that he should have knowledge and skill in every field of extension.

Do you believe it possible for a Gramsevak to be given adequate training in only two years for the innumerable duties he must perform?

Find approximately how much it costs the Government to give training to a Gramsevak for one year.

A. Do you believe three years of training would make Gramsevaks much more efficient in their work with villagers?

B. If the average Gramsevak works in extension for 25 years before retirement, how much per year of service would be the cost of an added year of training? Would his greater efficiency after a third year of training make the cost a wise investment for the government?

4. In this chapter we have discussed:

A. The work of the Gramsevak in Community Development.

B. Qualifications demanded for admission to a Training Centre for Gramsevak.

C. Qualities of a successful Gramsevak.

The work of the Gramsevika is worthy of careful study. While the work of the Gramsevak is very largely with rural men and boys, the Gramsevika works with the women and children of the village.

It has been truly said that the home is the most important single factor in influencing the attitudes of families and communities. The daily work of the Gramsevika takes her into the homes of the villagers. More directly than any other extension worker she is in a position to influence desirable changes in the home that will upgrade family living.

A Committee of three members of the class should be elected by their classmates and directed to visit the Home Science Wing at the Gramsevaks' Training Centre. Here they will make notes on all phases of Gramsevikas' training and work.

At the next meeting of the college class, each committee man will give a report to the class.

Committee man No. 1; Requirements for admission for training as a Gramsevak.

Committee man No. 2: Training courses in the Home Science Wing that prepare Gramsevaks for the village work.

Committee man No. 3: The work of a Gramsevak in the villages.

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Chapter 25

PERSONAL QUALITIES OF A SUCCESSFUL EXTENSION WORKER

Community development in India has already called into service thousands of young men as they graduated from their training classes. A goodly per cent have entered the work with an enthusiasm that has grown with the years and have made outstanding records as successful extension agents. Others have consciously disciplined themselves to carry out their assignments and have been fairly successful. Still others have experienced a growing dislike for their duties and have proved unsuccessful as extension workers.

Why this difference? What attribute must a worker possess to become a successful extension agent? We are thinking of course of success in agricultural extension.

An agricultural extension worker must first of all be well trained in scientific agricultural methods. He cannot lead villagers to adopt approved methods in which his own knowledge is incomplete or hazy. When he has graduated from college he presumably is well versed in all of the latest knowledge in the various fields of agriculture. If he then closes his books with a feeling of relief that he is now "educated" for life, within five years he will be rusty and within ten years he will be a back number, completely out of date. Each year new knowledge, new methods, new treatments pour out from our Research Stations in ever-increasing amount. New fertilizers are developed and new ways to apply them, more effective insecticides are compounded, new schemes for livestock improvement. An extension worker should set aside several hours a week for the study of new agricultural bulletins as they are issued and new books and articles in agricultural journals reporting the new discove-

ries. He must ever keep abreast of the rapid advance in agricultural sciences. Local leaders will be glad to follow the lead of a well-informed extension agent as their own prestige in the village will be advanced if they can give villagers sound advice. They will withdraw immediately from any extension agent who gives them unsound advice and thus subjects them to the ridicule of their neighbours.

To meet success in the field of extension a worker must be well trained in extension philosophy and in extension methods, which are the tools of his trade. He must know how to use these tools in keeping with the interests and the felt needs of the villagers with whom he will work. He must know how to lay out demonstrations, how to conduct group meetings, how to organize tours to bring about his end product — the understanding and use by the cultivators of improved methods in farming and the development in them of broader interests and new attitudes and ideals.

Yet adequate training in scientific methods in agriculture plus equally adequate training in the extension process and methods will not in themselves insure successful work in extension. A third requisite is needed. The extension worker must be possessed of certain *personal qualities* to be successful in his work with villagers. All studies in the United States have shown that these *personal qualities* are more important than technical training in agriculture or training in extension methods.

What are these personal qualities so necessary in a successful extension worker?

A successful extension worker must really love people. An astronomer works with telescopes, planets and stars, a chemist with elements and molecules, a bacteriologist with microscopic forms of life. An extension agent works with *people*. He must really like people not only people who are his social and educational equals, but people who have not had the advantages of education. He must like to work with poor, illiterate villagers, have confidence that with proper guidance they can make sound decisions, improve their standard of living and give their children the educational advantages they themselves were denied. He must find a warm pleasure in helping villagers to advance to worthy and happy citizenship.

An extension agent must believe in the supreme importance of his job. He must be a tireless worker, undismayed by temporary failure of his plans, a constant searcher after still newer and better methods by which to lead his villagers to a fuller and more gracious life. He must find his greatest reward in the friendship and appreciation he will receive from his villagers for the guidance and leadership he has given them. He must be able to find a rich satisfaction in the knowledge that through his efforts these lowly men and women are finding a fuller life and the children of the village are insured a happier future.

Questions for Study and Discussion

Do you possess the qualities of a good extension worker? Measure yourself honestly by the following test. It was composed by Prof. Glenn Busset, Extension Advisor at Osmania University.

All of you must wonder to yourselves sometimes: "Am I a good Extension worker". Just what does it take to be a successful agricultural extension worker?

There are certain qualities that seem to be essential and although this list is far from complete, it can be used effectively as a yardstick to measure yourselves as extension men.

1. Do you like farm and rural people?
   Yes.
   Some of them.
   They don't seem to like me.
2. Do you have good public relations ability?
   Yes.
   Don't know what it means.
   No, that is the job for the department of propaganda.
3. Do you think you are well trained for your job?
   Yes, I keep informed on all new agricultural developments.
   Fairly well.
   No, I am too busy to do additional reading or experimentation.
4. Can you say, 'I do not know' when a villager asks you a question and you are not sure of the answer?
   Yes, I say it, if I am not sure.
   I say I do not know, but will find out and tell him.
   No, I give him an answer anyway. He will never know if it is not right.

5. Have you gained the confidence of the cultivators?
   Yes, they come voluntarily to me for advice.
   I handn't thought much about it.
   There is too much to do — I can't waste time seeking their approval.
6. Do you enjoy making farm visits?
   Yes, I like to talk to the men on the farm.
   I would, if I had something to say to them.
   No, I don't have time, and they aren't interested.
7. Have you developed method demonstrations on the farms?
   Yes, I believe the farmer will most likely adopt that practice that he has some part in doing.
   I would if the villagers were educated men and could understand new things.
   No, that is research, and I am supposed to leave that for the research stations and department of agriculture.
8. Do you systematically plan your work?
   Yes, I have a day-to-day and week-to-week schedule, that fits into my yearly programme of work.
   I usually plan my work, but only a few days at a time.
   It is just a waste of time. Something comes along and changes what I have planned for the whole week.
   It is best just to plan from day-to-day.
9. Do you know the *Why, When, What* and *How* of your job?
   Yes, I think I know my subject matter pretty well.
   Sometimes, I am in doubt.
   No, I feel that I am being asked to do far more than I have been trained to do.
10. Do you work hard?
    Yes, I work as hard as I possibly can: long hours and few holidays.
    Why should I work harder than anyone else? We all get paid the same.
    I am an educated person, and it is my duty to give the orders for someone else to do.

REFERENCE

Kelsey and Hearne: *Co-operative Extension Work*, chap. 6.

Chapter 26

THE QUALITIES OF A GOOD ADMINISTRATOR

THE YOUNG men in this class will shortly graduate with the degree of B.Sc. (Ag.). A large number will be posted in extension work. The field of extension is growing rapidly. New fields are being opened, new positions created. For young men who demonstrate hard work and ability, promotion should be rapid. In a few short years undoubtedly many of you will be promoted to administrative positions. Many men with marked ability in some certain field have failed when advanced to an administrative position. It will be profitable to review the qualities that have made some men outstandingly successful administrators and the lack of which has caused failure with others.

1. *A good administrator deals fairly with his subordinates.* No administrator by himself can develop a good extension programme. The major work must be done by his many assistants. They are human. They will respond generously and give great loyalty to the superior who treats them as friends rather as underlings. A good administrator counsels with his staff. He invites their suggestions and criticisms of any plan being considered. True, the administrator is the one who must make final decisions; but, even though the final decision may be against the judgment of the subordinates, the fact that they have been invited to freely express their viewpoint will insure their loyalty. They feel they are part of a team; that their suggestions have been given serious consideration; that when a course of action has been decided upon the whole team must work for its success.

Further, a good administrator appreciates that the men on his staff are ambitious and desirous of promotion. By advice and coaching and by ever entrusting to them greater

responsibilities he will help his younger men prepare themselves for higher positions. When he believes a certain individual is ready for promotion he will suggest his name to the higher authorities.

Such friendly personal interest in the welfare of his assistants will insure for an administrator the eager loyalty of his staff which in turn will insure their enthusiastic support of his own programme and their own hard work for its success.

2. *A good administrator is a trouble-shooter.* In large repair shops for motor cars there is always a man called a trouble-shooter. A motor will not function well when there is friction, a misadjustment or a faulty part. The trouble-shooter knows motors. By listening to its running and by checking with his instruments he can locate the friction or misadjustment and direct a mechanic in its repair. Then the machine runs smoothly.

An administrator in extension is directing a far reaching machine that extends through his staff out to the most distant village. The smooth working of this machine will be disturbed by the complaints and jealousies and bickering to which human beings are prone. The administrator is the one man who must settle these complaints and quarrels if his machine is to function effectively. He must not be annoyed by these troubles or be afraid of them but must settle them promptly by kindly firmness and absolute fairness. At times he may call a trouble maker to his office quite alone, or he may call several quarrelling assistants at the same time. He will allow each man to fully state his grievance or complaint, then by simple reason and logic show them how groundless are their grievances. In the case of an unreasonable individual he will exercise firm discipline. Whatever form of action he may follow he will settle the dispute because the extension machine cannot run efficiently when held back by internal friction. The good administrator recognises that complaints, jealousies or misunderstandings must be settled when they first appear or they will wreck the extension machine.

3. *A good administrator pays attention to detail.* In an extension organization many things must be co-ordinated. Fertilizers and insecticides, seldom in sufficient amount, must be allocated fairly to field agents. Seeds must be procured and

distributed. The assignment of a jeep for travel, a projector and film when needed, the services of a subject matter specialist— on these services when needed depends the success of the programme in the field. The administrator must play no favourites but must be impartial in allocation and assignments. Painstaking attention to internal detail is like periodic oiling of a machine. It insures smooth running.

4. *A good administrator must believe in the importance of his work.* No one can be happy in doing work that he believes is of little value. A good extension administrator must believe that no other work in India is of greater importance than village reconstruction in all its phases and must inspire his staff to share his belief. He will never be satisfied with progress being made but will search continually for better approaches, better methods for accomplishing the goals and will invite his staff to contribute ideas. He will not be afraid to point out to his superiors policies he believes are wrong and will firmly defend corrections he believes necessary.

A large number of young men who had finished school and had been posted as assistants under various administrators were asked to list the qualities they considered most important in a good administrator. This was their composite answer.

I would enjoy working for an administrator who:

1. Is not afraid of his job, of the size of it, or of losing it.
2. Believes fully and sincerely in his work.
3. Enjoys his work and can make his followers enjoy it.
4. Will fight for the follower when the follower is in the right.
5. Recognises the followers as persons, as fellow human beings.
6. Will tell a follower off when it is necessary.
7. Knows most of the answers but who will admit it when he doesn't.
8. Is predictable, on a steady even keel.
9. Can't have things put over on him, but is willing to overlook mistakes.
10. Is honest, beyond any reproach.
11. Can show the follower how, without trying to show him up.

12. Is willing to listen to the follower.
13. Really wants the follower to succeed.
14. Can so lead that the follower will be trained to take over an administrator's duties.
15. Has authority without showing it; is fully in charge.

An administrator by virtue of his position may be the leader of his team, or he may be the boss. Which will you be when you have been advanced to an administrative position?

Boss or leader.

1. The boss drives his men; the leader coaches them.
2. The boss depends upon authority; the leader on goodwill.
3. The boss inspires fear; the leader inspires enthusiasm.
4. The boss says "I"; the leader says "we".
5. The boss assigns the tasks; the leader sets the pace.
6. The boss says, "Get here on time"; the leader gets there ahead of them.
7. The boss fixes the blame for the break-down; the leader fixes the break-down.
8. The boss knows how it is done; the leader shows how it is done.
9. The boss makes work a drudgery; the leader makes it a privilege.
10. The boss says, "Go"; the leader says, "Let's go".

(Author Unknown)

Questions for Study and Discussion

Some day you hope to earn advancement to an administrative position.

Make an honest appraisal of yourself as a prospective administrator. How well do you possess the qualities of a good administrator as listed in "I would enjoy working for an administrator who " and "Boss or Leader"? A total of 25 points are listed. Give a value of 4 to each point. A perfect score would then be 100. Rate yourself honestly.

If you recognise that you are weak on some points it is no reason for discouragement. Good qualities can be cultivated. Set out immediately to cultivate them.

REFERENCE

Kelsey and Hearne: *Co-operative Extension Work*, chap. 6.

CHAPTER 27

EXTENSION AS A LIFE CAREER FOR B.Sc. (Ag.) GRADUATES

A LARGE per cent of the annual class of B.Sc. (Ag.) graduates for many years in the future will be posted for positions in extension. They have spent three or four years in college in the study of scientific methods of agriculture. They have had training in the philosophy, organization and methods of extension, but as they travel to their first post it is only natural that they should raise the question with themselves: "What has extension to offer as a life career?"

In considering any field of work as a life work a young man is justified in asking cetrain questions.

1. What is the rate of pay?
2. Is there probability of promotion?
3. Is there reasonable certainty that the work will continue through lifetime?
4. Is the work of a nature that will bring a feeling of accomplishment and a deep personal satisfaction in its doing?

Extension demands long hours of hard work for at best only fair pay. Extension is teaching and teachers the world over fail to reach the high pay scales. If wealth is the chief ambition of a young man he should not become an extension worker for in that field he will never grow rich. On the other hand extension does offer compensations. Within its pay scale regular advancement is quite certain and pressure already is building for higher pay scales. There can be no question that work in extension is a life time job and when retirement age is reached a pension is assured. Fair pay in contrast with other fields of work, the probability of higher pay

ranges in future years and a government pension when work days are over are well worth considering.

The work in Community Development was established in 1952. In the next six years it expanded to cover approximately one half of India's rural area and plans call for complete coverage by 1961. This is very rapid expansion. Rapid expansion in any field means very hopeful possibilities for promotion for early workers in the field. Young men now entering extension who prove their ability by hard and successful work are almost certain to be advanced to positions of greater responsibility and higher pay in the due process of time.

Extension work offers a challenge not exceeded by any other field. India can never hold her head high among the democracies in the world while nearly eighty per cent of her people are peasants living in their present appalling poverty with its concomitants of illiteracy, ignorance, superstitions and ill-health. The challenge of rebuilding India is the challenge of village development. Dedicated extension worker must be the chief tool in upgrading village living. As he works with rural people and leads villagers to adopt scientific methods for a more abundant food supply, to practise sanitation and follow health recommendations, to improve their homes and schools and community organizations and make rural life richer and fuller and happier for all the village, the extension worker will find a highly rewarding personal satisfaction. He will know that through his leadership the older people in the village have found a bit more comfort in their declining years, younger adults have been inspired with a vision of self respect and accomplishment through their own efforts and the children of the village assured an education for a more prosperous and happier future. The rich satisfaction of having helped his fellowmen cannot be assigned a monetary value. It is far above money values.

Successful extension work is never static. It is highly flexible. A young man entering the field today should adapt himself to new emphases, new goals, new methods, as experience develops their needs. In years not too far in the future there will be a demand for more specialized training for extension workers and for the services of more specialists in various fields. The numbers of extension workers as well as the

time of their training will be increased. Experience has already shown that Gramsevaks must be better trained and that a Gramsevak at best can serve but five villages rather than ten. The surface has scarcely been scratched in work with village women, in nutrition, child care and home development and many thousands of young women extension workers must be trained and employed. Youth Club work has scarcely been started as yet in most Blocks and it is highly probable as its benefits are proved that an especially trained youth leader may be attached to every Block with his full time delegated to youth work. Credit facilities are expanding each year, and the need for skilled organizers of local co-operatives to handle all kinds of supplies and to market village products will grow. More and more emphasis will be placed on local planning councils and on the training of local leaders to actively carry through planned projects.

A young man electing a life career in extension must adapt himself to constant changes in the field as experience shows the need and must become a leader in initiating needed changes. By self study, by training in short course camps or through refresher courses at the College of Agriculture, he must ever keep abreast of new technical knowledges. In some cases he may find such a strong interest in some given phase of his work that he can request leave of absence for graduate study and become a specialist in that phase.

For the young man who enters the field with the ideal of service to his country and his fellowmen a life career in extension will bring rich reward and satisfaction.

Questions for Study and Discussion

1. A young man is trained in College for work in extension and is passed out with a B.Sc. (Ag.) degree.
What other fields would be open to him with such training?
What would be the pay scale in these other fields?
What would be the probability of advancement?
Would the work offer a high degree of satisfaction in doing?
2. Do you believe the chief consideration in choosing a field of work should be "How much does it pay?"
3. Contrast a post in government with a position in private employment with which you are familiar on:

Rate of pay.
Living conditions.
Security.
Probability of promotion.
Probable retirement pension.

4. An ambitious young man finishes college and enters the field of extension. He works hard and is gradually promoted to the position of B.D.O.

If he holds the B.D.O. position at retirement what pension would he receive?

Chapter 28

AM I A GOOD EXTENSION WORKER?

CREED OF AN EXTENSION WORKER

In 1952 the Government of India launched the Community Development Programme to upgrade the standard of living of the 80 per cent of the population of India that live in more than 558,000 villages. It is an uplift programme that affects every aspect of village life—production of food, public health, housing, unemployment, education, recreation and all other phases of rural living. Its accomplishment is entrusted to a great extension service that already covers more than two thirds of India and very shortly will reach all villages. The services of tens of thousands of extension workers, both men and women, are required.

Extension is hard and difficult work. It demands of its workers a dedication, a missionary zeal. Many who enter the field will lack this spirit and will drop out, finding the work tiring and distasteful. Only men and women possessed of a high sense of devotion — who find their real reward not in the salary paid to them, but in the knowledge that they have helped men and women, boys and girls to a better and happier life — will continue in extension and feel a pride in their profession.

Even a most enthusiastic and hard working extension agent may sometimes become exasperated at seemingly slow progress and perhaps unconsciously be guilty of violations of good extension precepts — violations that hinder the developments he is trying so hard to attain. It is well for him to occasionally pause and ask himself: "Am I a good extension worker?" A few questions he can ask himself in making an honest self appraisal are:

1. Do I sometimes tell people what their problems are instead of helping them understand their problems and work out solutions?
2. Do I sometimes give answers to questions when I am not sure my answers are correct?
3. Does a programme I have planned sometimes fail because I had not made provisions for necessary supplies and equipment, causing villagers to lose confidence and trust in extension?
4. Have I failed to follow-up villagers' interests in new methods and allowed them to revert to old practices?
5. Have I taken too much leadership and failed to train local leaders?
6. Have I been guilty of making decisions for people instead of guiding them to make their own decisions?
7. In my zeal to bring immediate improvement in many fields have I led villagers to attempt too many programmes at the same time with the result that none of them succeeded?

To be honest in self-appraisal is one of the greatest virtues. Every extension worker should frequently renew his faith by re-reading an Extension Worker's Creed (From Gaon Sathi). Indeed, it is worthy of memorization. In simple language that is almost poetry it expresses the faith, the hope, the prayer of devoted extension workers.

AN EXTENSION WORKER'S CREED : (FROM GAON SATHI)

I believe in village life and that it can be rich and wholesome.

I believe in village families founded on mutual affection and respect.

I believe in village youth; in their longings for opportunity and in the fulfilment of their right for trained minds, healthy bodies and clear hearts.

I believe in village people, in their ability to solve their own problems and in their power to develop their lives.

I believe in my own work; in the opportunity it affords to be of service to others; and this because:

All men need self-respect.

All men need friendship
All men need recognition.
All men need opportunity.
And therefore in all my work
I shall seek at all times to be friendly.
I shall seek at all times to be honest.
I shall seek at all times to be sincere.
I shall seek at all times to be humble.

I shall with sincerity of purpose work with village men, women and children for better family living, by helping them to make their fields and livestock more productive, their houses more comfortable and beautiful and their community more satisfying.

And because I believe in these, I shall to the best of my ability endeavour to fulfill them.

I am a Gaon Sathi.

In the words of one of the oldest prophets, "The fields are ripe unto the harvest and the labourers are few".

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